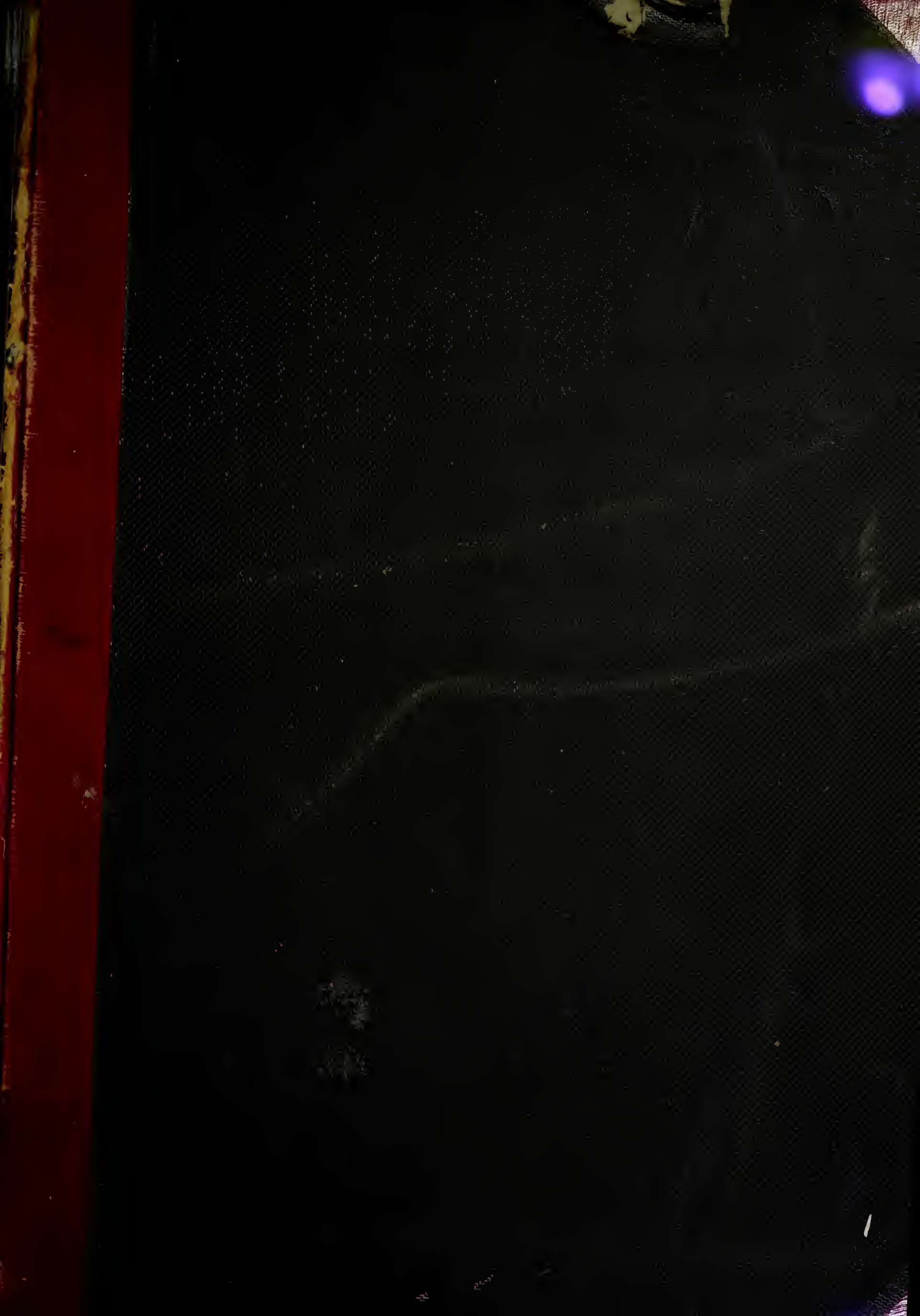


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EXTRACT

From an Act prescribing Rules for the Government of the State Library, passed March 8th, 1861.

SECTION 11. The Librarian shall cause to be kept a register of all books issued and returned; and all books taken by the members of the Legislature, or its officers, shall be returned at the close of the session. If any person injure or fail to return any book taken from the Library, he shall forfeit and pay to the Librarian, for the benefit of the Library, three times the value thereof; and before the Controller shall issue his warrant in favor of any member or officer of the Legislature, or of this State, for his per diem, allowance, or salary, he shall be satisfied that such member or officer has returned all books taken out of the Library by him, and has settled all accounts for injuring such books or otherwise.

SEC. 15. Books may be taken from the Library by the members of the Legislature and its officers during the session of the same, and at any time by the Governor and the officers of the Executive Department of this State, who are required to keep their offices at the seat of government, the Justices of the Supreme Court, the Attorney-General, and the Trustees of the Library.

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PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, JULY 1, 1876. [Number 1.

INV. 1898.

The Title-Deed of Our Liberties.

The Declaration of Independence and Many Interesting Facts Concerning It.

The Independence of the United States dates from the Fourth day of July, 1776, and the glories of this Centennial year culminate on the hundredth anniversary of that day, July 4th, 1876. The great event of the day one hundred years ago was the formal signing of that grand document known as the Declaration of Independence. It is appropriate to the present to refresh our memories concerning the sterling deeds of that early time and to fill our minds with double weight of the reverence and rejoicing with which we have been taught from childhood to greet the coming of the nation's birthday.

To aid our readers to this patriotic sentiment we reproduce the grand, ringing sentences which compose the instrument which gave form and unity to the revolutionary effort, and mention many interesting facts concerning it which recent research has brought to light.

The Declaration of Independence.

On another page we print the declaration with the type woven into the outline of the historic "Liberty bell" which rang out its adoption to a waiting people.

How the Declaration Was Written.

For the following interesting facts concerning the Declaration we are indebted to a timely and well written article in *Scribner's Magazine* for July, reviewing the historical facts which led to the Declaration. As is generally known, the Declaration was written by Jefferson. He was unsurpassed in his time in power of expression. He accordingly framed it; Franklin and Adams suggested a few verbal amendments; Sherman and Livingston had none to offer, and the document stood ready to be reported to the Congress.

Some of those who throng to Philadelphia this summer may feel an interest in knowing that the "title-deed of our liberties," as Webster called it, was written in "a new brick house out in the fields"—a house still standing at the south-west corner of Market and Seventh streets, less than a quarter of a mile from Independence square. Jefferson had there rented a parlor and bedroom, ready furnished, on the second floor, for thirty-five shillings a week; and he wrote the Declaration in this parlor, upon a little writing-desk, three inches high, which still exists. In that modest room we may fancy Franklin and Adams listening critically, Sherman and Livingston approvingly, to what was for them simply the report of a committee. Jefferson had written it, we are told, without the aid of a single book; he was merely putting into more systematic form a series of points long familiar.

Signing the Document.

Jefferson used to relate, "with much merriment," says Parton, that the final signing of the Declaration was hastened by a very trivial circumstance. Near the hall was a large stable, whence the flies issued in legions. Gentlemen were in those days peculiarly sensitive to such discomforts by reason of silk stockings; and when this annoyance, superadded to the summer heat of Philadelphia, had become intolerable, they hastened to bring the business to a conclusion. This may equally well refer, however, to the original vote; flies are flies, whether in July or August.

American tradition has clung to the phrases assigned to the different participants in the scene: John Hancock's commentary on his own bold handwriting, "There, John Bull may read my name without spectacles;" Franklin's, "We must hang together, or else, most assuredly, we shall all hang separately;" and the heavy Harrison's remark to the slender Elbridge Gerry, that, in that event, Gerry would be kicking in the air long after his own fate would be settled. These things may or may not have been said; but it gives a more human interest to the event, when we know that they were even attributed. What we long to know is, that the great acts of history were done by men like ourselves, and not by dignified machines.

Reading the Declaration.

On the fifth day of July, Congress sent out circulars announcing the Declaration. On the sixth the document appeared in a Philadelphia newspaper and on the eighth it was read by John Nixon in the yard of Independence hall, as shown in our illustration. Before the reading, the king's arms over the door of the supreme court room in Independence hall were torn down, and these trophies were burned in the evening in the presence of a great crowd and amid the joyful pealing of the old Independence bell.

Facts About the Signers.

Even those who look with the greatest pride and hope upon the present and future of this nation, must admit that the Continental Congress contained in 1776 a remarkably large proportion of able and eminent men. The three most eminent delegations naturally were from what were then the three leading States—Virginia, Massachusetts and Pennsylvania. Virginia contributed Thomas Jefferson, who framed the Delaration; Richard Henry Lee, whose resolutions preceded it; Francis Lightfoot Lee, his brother; Wythe and Braxton, who had stood by Patrick Henry in the old House of Burgesses; Nelson, who had first proposed organizing the Colonial militia of Virginia, and who later, as a general in the field, bombarded his own house at Yorktown, and Harrison, afterward the father of a President. Massachusetts sent Hancock, the President of the Congress; Samuel Adams, who shared with Hancock the honor of being excepted from a royal pardon; John Adams, "our Colossus on the floor;" Elbridge Gerry, afterward Commissioner to France and Vice-President of the United States, and Robert Treat Paine, who had acted as public prosecutor after the Boston massacre. Pennsylvania contributed Dr. Franklin, "the genius of the day and the patron of American liberty;" Robert Morris, "the financier of the Revolution," by whose sole credit the Continental army was sustained in its closing campaign, and who was afterward a prisoner for debt; Morton, who had been a member of the "Stamp Act Congress;" Ross, the mediator between the Colonists and the Indians; Dr. Rush, renowned for science and for humanity; Clymer, soldier, student, writer, and prison reformer; the Irish-born Taylor and Smith, and the Scotch Wilson.

Yet the other colonies were represented by delegations hardly less eminent. New York sent Livingston, of "Livingston's manor," the correspondent of Edmund Burke, and one of the framers of the "Address to the people of Great Britain" in the first Continental Congress; Lewis, the Welsh merchant, to whom the British government had given 5,000 acres of land for his services in the French and Indian war; Floyd, who, during the greater part of the Revolution, was an exile from his home, leaving it in the hands of the British; and Morris, afterward succeeded in Congress by his more famous brother, Gouverneur. New Jersey sent Hopkinson, lawyer, wit, and poet—the author of "The Battle of the Kegs;" Dr. Witherspoon, the Scotch clergyman, President of Princeton college; Stockton, a patriot, and the ancestor of patriots; Clarke, known as "the poor man's counselor," though not a lawyer, and "honest John Hart." New Hampshire had chosen Dr. Bartlett, the first to sign the parchment roll; Dr. Thornton, who succeeded Governor Wentworth, and became acting Governor of New Hampshire; and Whipple, who rose from a cabin-boy to be a general, commanding with Stark at Bennington, and under Gates at Saratoga. Connecticut sent Roger Sherman, shoemaker, lawyer, and judge, who had studied while working at his bench, and had become a profound lawyer on borrowed law books; Huntington, afterward President of Congress, and Wolcott, who defended the Connecticut coast against Tryon, and, later, made peace with the Six Nations. Rhode Island sent Hopkins, who had introdnced a bill into the Rhode Island Assembly to abolish slave importation, and had at the same time emancipated his own slaves; and Ellery, whose house was burned by the British army as soon as it took possession of the island.



READING THE DECLARATION IN 1776.

Delaware had elected Rodney, who rode 80 miles, as already stated, to be present at the vote for independence; Reed, who had roused his colony to contribute for the sufferers by the Boston port bill, and McKean, the only man who served in Congress through the whole Revolutionary war. The South Carolina delegates, coming at first the only delegation which had united in opposing independence, were equally united in finally approving and practically sustaining it, Middleton losing his fortune in the cause, Hayward being scarred for life by a gunshot wound, and both, with Rutledge, being imprisoned for a year at St. Augustine by the British; while young Thomas Lynch, who had come from the London Temple to espouse his country's cause, escaped the dangers of war only to be lost at sea at 30. These were all natives of the colony from which they came; but North Carolina and Georgia were honorably represented by what we should now call "carpet-baggers." North Carolina sent Hooper, a Massachusetts man, who had studied law under James Otis; Hewes, the New Jersey Quaker, and Penn, the Virginian, who afterward rallied the mountaineers of his adopted State against Cornwallis. Georgia, again, sent the Virginian, Walton, who had learned to read by the light of pine knots when a carpenter's apprentice; the English Gwinnett, and Hall, of Connecticut, who at first came alone to the congress, and was admitted to represent his district before the young colony had made up its mind. Finally, Maryland was represented by Chase, who, as judge upon the bench, afterward said to a timid sheriff, doubtful about getting some rioters to jail, "Summon me, Mr. Sheriff, and I'll take 'em;" by Paca, who said, after his first session, that the Virginia gentlemen alone seemed able to carry on the Government, so that no one else was needed; Stone, one of the committee that afterward framed the Articles of Confederation, and Charles Carroll, who, lest some namesake should share his risks, added "of Carrollton" to his name.

This is the story of the signing. Of the members who took part in that silent drama of 1776, some came to greatness in consequence, becoming presidents, vice-presidents, governors, chief justices, or judges; others came, in equally direct consequence, to poverty, flight, or imprisonment. "Hunted like a fox by the enemy," "a prisoner 24 hours without food," "not daring to remain two successive nights beneath one shelter,"—these are the records we may find in the annals of the revolution with respect to many a man who stood by John Hancock on that summer day to sign his name. It is a pleasure to think that not one of them ever disgraced, publicly or conspicuously, the name he had written. Rejoicings everywhere throughout the colonies followed the signing.

Legal Holidays.

The Governor has, says the Sacramento *Record-Union*, appointed the third and fifth of July as legal holidays, for the reason that the programmes of celebration in many places embraces those days, and calls on all persons to desist from their ordinary vocations on those days and to devote them to the celebration of the Centennial year of the nation. The law under which the Governor acts in declaring Monday and Wednesday legal holidays is found in Section 7 of the Civil Code, and reads as follows: "Holidays within the meaning of this Code are: Every Sunday, the first day of January, the twenty-second day of February, the fourth day of July, the twenty-fifth day of December, every day on which an election is held throughout the State, and every day appointed by the President of the United States or by the Governor of this State for a public fast, thanksgiving or holiday." The Governor calls upon all citizens to devote the three days to the celebration of the origin, progress and greatness of the American people.

Plymouth Church has fixed the salary of Beecher at $20,000 annually.

CORRESPONDENCE.

[Editorial Correspondence.]

The Centennial at Philadelphia.—No. 7.

The recent reduction in railroad fares, and the information which has gone out that hotel charges are not exorbitant here, added to the knowledge that the exhibition is now essentially complete in all its particulars, has had the effect to materially increase the number of visitors to the Centennial within the past few days, and the grounds are now daily thronged in their every part with great multitudes of people, who come hither from all parts of the country to witness the wonders of mechanism and other handicraft which go to make up the great panorama of the world's progress for the last hundred years which is here presented. The picture shown could never have entered into even the wildest dreams of the sages and seers who planted the seed, the ripe fruit from which we are now enjoying. Besides our own, sixteen foreign nations are here represented and their industries illustrated, to all but one of which I have made more or less allusion, and to that I will now call attention as the last but most important.

The British Exhibition.

Great Britain and her colonies occupy about one-third of the entire foreign space in machinery and agricultural halls, and about one-quarter of the same in the main building, where the miscellaneous exhibits of all nations are shown. Her contributions of machinery are not as numerous or varied as the American visitor had expected or might wish to behold. She is noticeably deficient in machine tools, in which particular the United States exhibit is remarkably full. A comparative exhibit of machine tools by England and the United States would have offered a most interesting and instructive study. But England, as a general thing, has brought only those articles with which she can best compete with our people. Her exhibits are largely of a heavy character. She shows but little that is small—much that is wonderful and useful. Among the wonderful we may especially notice her exhibit of

Heavy Armor Plates and Tested Samples.

In the manufacture of heavy masses of metal England excels the world. Her well known steam hammor plant for forging 81-ton guns affords an illustration in this direction. Her immense plants for forging heavy armor plates furnish another. These huge masses of rolled iron are among the most wonderful exhibits at the Centennial, while the tested samples, exhibiting the effect produced upon them by the impact of steel and chilled iron balls from her improved Armstrong guns, show what progress the so-called science of war is working among our cousins over the water.

In this exhibit we have, first, a fine specimen of armor plate, eight inches thick, and cut from an original plate 25 feet long by seven and one-half wide. The welding is so perfect that it is difficult to detect from its polished edge that it was not rolled out from one massive bloom. Near this is a smaller section cut from a plate 16 feet long by five and one-half wide and 21⅝ inches thick. One side of this plate has not been trimmed, but has been left to show of how many layers of plate upon plate or different blooms it has been built up. The ragged, unfinished end shows them distinctly, while a finished edge shows the perfection with which the work has been done. Near by we have another plate 11 inches thick, which has been tested with a seven-inch rifled gun, loaded with an elongated chilled shot, discharged with a distance of only 30 feet between the muzzle and plate. Five shots appear to have been fired, four entering so as to make only one large cavity; a fifth was delivered a short distance apart, showing what a single ball can do when fired from a modern rifled gun against a mass of solid iron. It had bored its way fully six inches into the solid wrought iron, forcing back the iron so as to form a jagged projecting fringe all around it. A further interesting exhibit would have been the shot itself or its fragments after it had performed its mission. None of the shots had passed through the iron; but where the four shots had been so fired as to make a single cavity the concussion had produced a slight bulge in the back of the plate. These plates are exhibited by Messrs. Cammel & Co., of Sheffield, England. Messrs. John Brown & Co., of Sheffield, also exhibit several plates which have been tested with results similar to the above. Another firm exhibits a splendid 14-inch plate which nobody has attempted to punch. These wonderful exhibits, in connection with the mammoth Krupp guns in the German exhibit, near by, are constantly being stared at by gaping crowds of all classes of our people, with the awe and amazement usually attributed to the provincial alone. But one must be to the manor born, so to speak, to be able to look upon such wonderful triumphs of human skill without a shudder at their sight and an inevitable reflection upon the terrible game of strength and skill which now constitutes the artillery practice of war.

It is with real pleasure that we turn from this exhibition of the skill of man directed in the way of producing agencies destructive of life and property to the more congenial and useful

Display of the Arts of Peace.

That which comprises most of the wonderful with the useful in this direction is the "Walter web printing machine," so called. This printing press is really one of the wonders of the exhibition, and attracts most marked attention. It stands on the fractional portion of the section in the English exhibit, marked 8 in the diagram which appeared in the PRESS two weeks since, so as to bring it as close as possible to the American presses shown in the sections marked A. Its only competitor is the Bullock press, on which the *Tribune* is printed, and which is similar to the one on which the *Evening Post* is printed in San Francisco. As much as the Bullock press is in advance of the other American presses, it is far from being abreast of the Walter press. The Walter press has its forms stereotyped and fitted to a small cylinder the same as with the Bullock press, and prints both sides, rolling off the paper continuously from a cylinder, printing it on both sides and cutting and delivering it in two piles, at the rate, as the gentleman in charge assured me, of *fifteen miles of paper per hour*—almost up to the average speed of a railroad train! Even at that great speed it is wonderful with what precision and neatness it does its work; it cannot be excelled in that particular by any cylinder press of any make. The English most certainly lead us in this direction.

The next most wonderful as well as useful exhibit in the English department is a Jacquard silk loom from Coventry. This loom is set to weave portraits of Washington, Victoria, Shakspeare, Grant and others. It weaves 20 portraits of the same individual at one time, which are turned off in a continuous ribbon and cut apart and sold at a dollar each, almost as fast as they are woven. It is really wonderful to observe how perfectly it does its work—almost equal to the best work of the engraver. Eight different colors are used in Washington's portrait. The loom scarcely requires any attention at all. There is an American Jacquard loom in the United States department, also set to weave portraits.

A Coal Cutting Machine.

An exhibit of much interest to the coal mining fraternity hereabouts is the coal cutting machine of William Baird & Co. This machine ought also to attract the attention of the coal mine managers of the Pacific coast, for it or something similar must soon be introduced to save the present waste of coal and reduce the cost of getting it out with the comparatively high cost of labor there. I cannot learn that any such device is used in any American coal mine, although there are a large number used in Great Britain with great success. It would be difficult to describe the machine without diagrams. It may be sufficient to say, in this connection, that the machine is very simple and easily handled. It works by compressed air, and cuts its way through a seam of coal to a depth of from three to five feet. It first makes a cut under the seam to any desired length along the vein, then cross-cuts until the projecting section of coal, having no support, falls of its own weight, or if necessary is thrown down in a large mass by driving wedges over the top of the seam. The machine will cut through from 300 to 350 feet of a three-foot vein in from eight to ten hours, thus throwing down in that time, in the very best possible condition, 75 to 90 tons of coal, requiring the attention of only two men and a boy. The gentleman in attendance is a son of the inventor, and explains its working so as to be readily understood by any intelligent miner. It is somewhat singular that these machines have never been introduced into this country. But we presume this exhibit will be the means of effecting so desirable an end. Haines & Payton also exhibit a coal cutter.

An Underground Locomotive.

There is another English exhibit of a peculiarly constructed locomotive, of small size and constructed for underground work. The boiler forms a hood which entirely covers all the working parts, thus protecting them from the dripping water and falling debris, which is so injurious to a locomotive of ordinary build. We believe the only underground motor hitherto employed on the coast is a small ordinarily constructed narrow gauge locomotive in the Sutro tunnel. The motor here exhibited is well worth the attention of those in charge of extensive mining operations, who may ere long find it a matter of economy to employ steam in place of man or horse power for drawing cars in long underground tunnels.

The Aveling and Porter Road Locomotives, Etc.

The Messrs. Aveling & Porter exhibit several of their celebrated road locomotives—one of which, some of our readers will recollect, was imported into California a few years since, but was never considered a success there. It is now, I believe, laid up in a storehouse near the Pacific Mail company's wharf. It is said that one reason why these machines have never succeeded in the Atlantic States is on account of the inferiority and uneven character of our roads. Such an objection, at least so far as the unevenness is concerned, cannot account for the impracticability of such machines on the valley roads of California. Notwithstanding all that has been said in regard to their use in Scotland and the north of England, we are inclined to think they are not very common there. They present every evidence of strength, durability and handiness for use; but were it not that this is an age of progress in almost everything, we should be inclined to think the road locomotive was an impractical idea.

In connection with this exhibit, several steam cranes are shown, which are worthy of special consideration by all parties having heavy bodies to move short distances. These cranes are capable of lifting from three to five tons, while the work of steering, driving and working the crane is performed by one man, stationed on the foot-board. They have a working circumference of about 150 feet. These cranes have been of very great service in lifting goods and machinery into place in machinery hall, and are pronounced most superior and efficient machines. They have proven the most useful of all the visiting machines on the ground, having promptly made themselves at home there and gone to work.

Other English Exhibits.

One of the most notable exhibits in this direction which England has brought us is a fine plant of sugar machinery from Glasgow, designed for the production of raw sugar on the plantation. Then we have improved machines for working wool and cotton in operation, performing the actual work of carding, spinning and weaving; also machines for making and shaping confectionery. What appears to be a very superior mode of securing picks upon their handles is shown, which I presume will be placed on exhibition at the Mechanics' fair, in August next. Mining men will do well to examine these picks. A metallic shield is first slipped on to the handle, and the pick is then dropped on over this shield and secured in place by a simple and apparently effective device. We have also calico printing machines, hydraulic presses and a few machine tools for heavy iron work. Several pumps are also shown in the hydranlic annex.

In machine tools the English exhibit, as already stated, is rather deficient. We have a few for metal and heavy iron work; but nothing at all, comparatively, to what is shown by the United States. Perhaps such an exhibit could hardly have been expected from a country where such tools are so little used to what they are here.

Several useful inventions are shown in models, among which we may mention prominently a railroad junction, fitted with a patent system of interlocking switches and signals for working on the block system. A model is also shown of a device for rendering this system automatic, by means of an electro-mechanical machine, which operates the levers without the interference of any other agency than that of the approaching train itself. With the increasing demand for faster passenger trains, and the rapidly accumulating business on some of our more important roads, improvements in this direction, calculated to afford better protection for human life, will be gladly received and their merits carefully considered.

There are many other minor matters connected with the English exhibit which we should notice, did space permit; but with what has already been written we must close our notice of foreign displays in machinery hall, until we come to a general comparative summing up. My next letter will be devoted to the United States exhibit of machinery.

W. B. E.

Centennial Grounds, June 14th, 1876.

Discursive Discussions.

EDITORS PRESS:—I've been for some weeks wishing to write to you, but nature is so busy these long days that farmers must perforce be also busy, that they may direct her mighty forces to their own personal advantage. Our play time must come later in the season if it come to us at all.

It strikes me that as a people we lack playfulness; we are altogether too glum and grim. On those rare occasions when we indulge our cachinatory muscles in a smile, we smile grimly, as though we grudged them their unwonted exercise; and those of us who "smile" metaphorically, (alas! some but too frequently,) in bar rooms, perform the operation with visages as glum and as nervous clutchings after that other allaying beverage as though we fully apprehended an immediate verdict of "spontaneous combustion" to be pronounced over our self-incremated bones. There is too much of the child and too little of the youth about us. We retain the selfishness, peevishness, and ill regulated temper of childhood; but we lose the frankness, modesty, playfulness and noble enthusiasm of youth. The ancient Greeks knew better. They believed in

Play,

And I have had to make this somewhat lengthy prologue as an apology for talking about a game. The Greeks called the game that I want to talk about the "discus;" it was something like our game at "quoits," and I suppose nine readers out of ten never saw a game at quoits. As nearly as I can recall the game it is played thus: Two iron pins are driven into the ground some 50 feet apart; each player has two flat iron rings, thick near the center and tapering towards the edge, and so marked that he can recognize them. Standing at one pin the players in turn throw their quoits, so that if possible, the quoit may encircle the other pin, or come as near that as may be. He whose quoits come nearest the mark is adjudged winner.

Now, Messrs. Editors, it is my pleasure to disregard Webster's etymology of the word discussion, and to believe that the word discussion is derived from my Grecian game at quoits, (diskos). Furthermore, I propose to some of your correspondents to enter into a game of diskos, or into a discussion with me. The ground to be furnished by the columns of the R. P., not the P. R. (prize ring). I will pitch the pins for the first game and throw my quoits first. Each correspondent to provide his own quoits and to do his best to ring the pin. You, Messrs. Editors, will, I know, act as umpires, see fair play and make sure that the mark aimed at is the truth, so far as it is ascertainable. Finally, a quoit misthrown is a dangerous missile; let us each endeavor to come somewhere near the mark, and not have our quoits alight by any mischance on our adversary's corns.

Manures.

As no one opposed my previous assertion that manure well applied was beneficial to all lands, I now suggest that one of the most highly fertilizing of manures, superphosphate of lime, might profitably be made of the boiled bones of the various mstanzas now being established. The entire carcass would then be utilized and result in canned meat, grease, wool, skins, glue, blood manure (rich in the much needed nitrogen,) and superphosphate. I believe but little apparatus is required for the manufacture of superphosphate; lead tanks and bone crusher would probably be the most expensive. The crushed bones, untreated by sulphuric acid, would, I think, be an available manure for

Alfalfa Lands.

Broken bones are highly esteemed as manure in the pastures of Cheshire, England, where the famous Cheshire cheese is made. It appears to be commonly set forth among us that alfalfa can be raised to time without end, if only the water supply holds out. This is undoubtedly a fallacy. All plants not only imbibe from the soil, but also emit some characteristic secretion. The clover family is more especially noted for this, hence, "clover sick" is an every day adjective. Alfalfa, from its roots being so far penetrating, may perhaps retain a healthy habit for a longer period than more tender rooted clovers. But I expect to hear the word "alfalfa sick" added to the farmer's vocabulary before many years pass; although I fully expect my friend Olden will put in his quoit that the alfalfa lands of Los Nietos never could so misbehave themselves.

"Hang a Calf Skin on Those Recreant Limbs."

Mrs. Nichols asks, "do my cows kick?" I think I could make any cow kick by adopting the right method. Cracked teats and clumsy manipulation will in most cases induce recalcitrant behavior on the part of the long-suffering cow; but fresh butter and better handling may insure a removal of the complaint. If not, follow Shakspeare's advice, and have a thong of calf skin with a loop at one end, pass it around the hind legs, connect the loop and free end in a noose and then hitch on to the tail. This won't make the cow give down her milk, though, and my remedy for that is to convert the milk into beef and then ask no more favors as to giving it down; I let the butcher knock it down. The easiest plan for a novice to pick a good cow for milk, is to examine the "escutcheon" or shield shaped streak of up-turned hair on the back of a cow's udder and thighs. In a first-class milk cow it extends from the bottom of the udder almost to the root of the tail, and covers the entire width of the udder, and is sometimes six inches wide up the thighs. But no cow can do well on poor feed. I have my cows fatten up well when they are dry and keep them fat after calving. I always preach that it is the surplus food that an animal eats, over and above what is necessary for its support, that brings in the profit. An animal had better starve outright than be kept on the verge of starvation year in and year out. The surplus food goes to the accumulation of beef or butter, and that's what we want.

Mr. Robert Ashburner

Stuck a pin in the RURAL PRESS ground some weeks since, and promised to exhibit his skill at the diskos game. The cultivation of mangold wurtzel was to be his mark. I've looked in vain to see him throw his quoits.

Cherry Culture.

Your cherry columnist, who favored us with his valuable experience lately, omitted, I think, to tell us a fact that experience has taught me: that if you want fruit from your cherry trees, you must give them lots of water when the fruit is setting and swelling, or your show of bloom will be a vain delusion. Moreover, care in grafting must be taken, to graft free growers on to free growers, and slow growers to slow growers. If not, the stock and scion grow unequally, and the tree is worthless.

The Chinese and Public Lands.

The *Bulletin* claims that the Chinese are to blame that 30,000,000 acres of public lands in California are not settled up. I claim that the fault is with the 30,000,000 acres. I've been nearly 11 years in this State, and I don't know where to find 160 out of all those 30,000,000 acres that I want to homestead or pre-empt. The fact is, Messrs. Editors, hundreds of people come here from the East, deceived by glowing

accounts of special garden spots in Californian publications, which speak as though the special garden spot described was a fair average of the unoccupied public lands that await settlement. On arrival, they find the garden spots selling at $300 per acre, and the 30,000,000 acres to consist mainly of huge black chaparral mountains, such as I can introduce intending settlers into.

I know a young man and family from the East looking for a quarter section to make a home on, and if any brother farmer knows an available 160 acres open to pre-emption, he'll oblige that young man by sending me word.

The truth is, the Chinese have helped the settlement of the country, by making roads, etc., for which white labor would have been too costly, if attainable. This question of Chinese immigration is essentially a farmers' and manufacturers' question. We are called npon to produce cheap food and cheap goods; we have competitors in all countries, of all colors and tongues; if we debar ourselves as a nation from using cheap labor, we put ourselves (already heavily handicapped by high freights, long distances, sacks, etc.) at a disadvantage in competing with others to whom Chinese labor is not debarred. There is no doubt but that—now that the Chinese have found emigration profitable—they will emigrate. Already Australia and South Africa employ such lahor; and, by-the-by, we are already behind Australia in the price our wheat brings in the English market. Australian wheat sells for two shillings per quarter more than best Californian graces.

Is it that it is cleaner? Are they better farmers than we? Or are we to give their climate the preference? Bah! Let's put it down to British prejudice.

But to return to the Chinese; let us remember that we have forced onrselves as traders, etc., on them at the point of the bayonet. As long as treaties were made in which the whole of the benefit was on our side, we were well satisfied. "A pull at the pagoda tree" filled many white pockets. Now John wants his innings, and that is all unfair. He has no right to any innings. We all adopt Bret Harte's epithet of "Heathen Chinee;" but we miss the moral of the poem, which seems to me thus: that v ces which are venial, if not rather commendable in the white man, are black and unpardonable in the yellow. As long as the white gambler created John out of his loose cash everything went swimmingly, but when John begins to see how the trick is done, and to do his share, he is to be "made for" by all parties.

Let those who impute untold vices to the Chinese "pull the beam out of their own eyes first."

I put it to farmers and dairymen generally whether, even with the number of laborers (of all colors) in the State, their profits are not almost all the time swallowed up by their labor bills. I think that is my share of the game for the present. EDWARD BERWICK.

Monterey, June 16th, 1876.

Notes from Ventura County.

EDITORS PRESS: — The crops around here are most excellent, though wheat in places shows some rust. Judging from the brisk business there is doing in farming machinery, etc., there must be a good breadth of land to be harvested. Haying is abont over, crop good; fruit crop pretty good, orchards young; strawberries do well with irrigation. Both here and at Santa Barbara I see and hear of Pekin ducks, Leghorn and Dark Brahma fowls from Col. Eyre's yard, Napa. Mrs. Edwards here has some of his pedigree fowls, from which she is successfully raising a fine stock of choice birds. She recently sent 12 eggs to Rev. Mr. Hongh, of Santa Barbara, and they yielded 12 chicks. At Santa Paula saw White Leghorns raised by me from eggs shipped by Col. Eyre to Ukiah, then brought down here. In a ride to Santa Paula saw a lovely valley and some of the finest alfalfa. Big stacks of the baled hay are in the fields and some seems ready to cut again. Water from the creek comes along in a ditch and makes orange, lemon, lime and other fruit trees, live willow, Osage orange and locust fences look well. Corn, flax, pearl harley, common barley, etc., are to be seen along the road, all well, except that volunteer barley and early sown flax are very weedy in places; bnt past experience proves that all these crops can be snccessfully grown. This and the climate and continual immigration, makes land command a good price; from enquiries it seems to rent lower in proportion than it sells. Here at Santa Paula are some finely fixed farms, belonging to men who seem to know how to farm. A great deal of harvesting is done by hogs, saving a large amouut of expense and work, and proving very profitable. Santa Paula is quite a thriving place. My old friend, L. S. Snuffins, from Ukiah, keeps a good temperance hotel and postoffice. In the reading room I found a file of the RURAL PRESS. I have organized strong Good Templar lodges at Carpinteria and Ventura, and expect to at Santa Paula, shortly. Was much interested in visiting the soap rock works, and seeing the amount of petrolenm oil brought for shipment from the wells and springs a few miles ont. They are about to work a refinery. The wharf is being extended. There is a good deal of enterprise and very fine society; a good free reading room and public library. To-morrow I leave for Los Angeles, whence more. J. W. WEBB.

Irrigation.

EDITORS PRESS:—Irrigation under ground is somewhat limited in extent. The cost of material does not always justify the undertaking. Five inch clay pipes, two feet long, answer well and may do for a small garden. Redwood boards, nailed together, with a four inch square opening, with auger holes two feet apart, serve a good purpose, and are cheaper. Others dig open ditches to the hard pan, which also answers well for drainage in the winter. Underground irrigation is well adapted to dry climates. It favors deep roots and nourishes those near the surface by absorption or percolation.

Irrigation as a Fertilizer.

A stream of water should acquire a temperature equal to the atmosphere and the earth. It carries with it ingredients of matter as a fertilizer. The process of flooding or warping land along the stream leaves a large deposit of sediment equally distributed, and enriches the soil to a great extent. If the amount of matter annually washed down by hydraulic mining could be equally distributed by the process of warping, what a fertilizer we would have. Then the soil would not get exhausted. The farmer could use the heavily laden, nutritious water for every day food for his plants.

Irrigation to become complete requires judicious underdrainage. If the soil will admit, good subsoiling is required, as it requires as much care to draw off the surplus water as time to bring it in. In all ordinary humid climates drouths are experienced. But irrigation, judiciously applied, this coast has logically proved to be a grand success and decidedly profitable. The great fertilizing element that is to unlock the latent resources of productive power of the soil is water; the question of fertility resolves itself into one of capacity for irrigation.

Sacramento, Cal. G. R.

Notes From Mendocino County.

EDITORS PRESS:—I have failed to see anything in your paper from Mendocino county; for that reason I think I write to let the readers of the PRESS know that there is such a place. You will strike Anderson valley about 30 miles west of Cloverdale, on the Mendocino stage road. This valley is about 16 miles long and from one-half to two miles wide, with the Navarro river running along the south side. The mountains on the north side are open and there is good grazing land, which is mostly covered with sheep. The north side is a solid body of redwood and tanbark oak. The people of this valley want some man with from $2,000 to $5,000, and a little brains to keep him level, to come in here and put up a saw, bark and grist mill. We have no sawmill within 30 miles, and our grist mill is in Ukiah valley, 25 miles. Farming is not carried on very extensively here. There is from 12,000 to 18,000 bushels of grain raised here a year, and from 200 to 300 tons of hay. The hay crop is extra this season, but the grain is late and not so good. We have a Grange here. Laurel Grange organized last September with about 30 members. The most of them are in attendance at our moetings, but some of them want a good lecturer to stir them up. We have a Good Templar lodge here also, which is doing good work with a membership of 76. It is making the Booneville saloon keeper turn pale around the gills. J. V. N. B.

Booneville, Anderson Valley, June 16th.

THE DAIRY.

Dairy Show at the Centennial.

The American dairymen's association has erected, in close proximity to the agricultural building of the Centennial international exhibition, a model cheese and butter factory, with rooms for an extensive display of dairy products and the apparatus and appliances used in the manufacture of the same. The dairy house is in the form of a double L, the front portion being 116 feet long by 28 feet wide, and comprising three apartments: the center one illustrative in its appointments of the American cheese factory, and creamery system; the end rooms being fitted up for the exhibition of butter and fancy cheese. The wings are 64 feet in length by 30 feet in width, and are appropriated, one for the display of foreign cheese, the other for American. Beneath the building is a cellar of 864 square feet, for the storage of products not ready for exhibition. The whole structure is of two stories in hight, the upper floor being fitted up with reception rooms, offices for committees, rooms for the storage and the preparation of products, and for restaurant purposes, it being designed to establish a farmers' lunch room in the building. Access to the interior of the exhibition rooms will be closed to visitors, ample opportunity being given to view the display through numerous windows opening upon the veranda which surrounds the whole structure.

Cheese and butter will be displayed on benches, or low tables, provided free of charge. Producers may themselves assume the charge of their goods, or can place them in the care of a thoroughly capable custodian, selected by the bureau, and paid hy the exhibitors according to a scale of prices to be established by the dairymen's association.

The dairy building will be ready for the reception of exhibits continnously from June 7th to November 1st, it being designed to have a constant exhibition, a feature commending itself to the fullest support of dairymen. To afford, however, opportunity for more active competition, it has been decided to have two grand exhibitions, one of spring butter and cheese, June 26th to July 6th; and one of autumn butter and cheese, October 17th to 21st. For the guidance of producers, the bnreau of agriculture has devised the following regulations:

Butter.

Butter will be judged upon the relative merits as to the make, color, flavor, texture, solidity and keeping quality. Parties exhibiting for competition must be prepared to furnish full statements as to the making of the hutter, upon printed blanks, which will be supplied. Butter offered for competition will be in most acceptable form, if made under the following classification, applicable respectively to the manufacture of creameries and dairies: Best sample of 200 or more pounds, made at any time. Best package of 35 pounds or over, made at any time. Best package of 35 pounds or over, made in each month respectively. Best package of 35 pounds or over, of oldest make. Best sample of five pounds in one pound prints. Best sample of five pounds or more, made respectively from the produce of the various breeds of cattle.

Cheese.

Cheese will be judged upon the relative merits as to quality, make, texture, keeping, flavor and color. Parties exhibiting for competition must be prepared to furnish, upon printed blanks, which will be supplied, full statements as to the method of making and curing of the cheese, and the preparation of the rennet. Cheeses must not be cut, bored, or tried in any way before being exhibited, or they will be disqualified for competition. Awards will be made upon the various established appellations, both of foreign and home production. Cheese entered for competition will be divided into classes, respectively ot factory manufacture and dairy production of that made previous to the year 1876, and that made during the year 1876. Cheese offered for competition will be in most acceptable form if made under the following classifications: Heaviest cheese of good quality. Best cheese of 5,000 pounds or over. Best three cheeses of each brand respectively, between three and 10 pounds, between 10 and 30 pounds, between 30 and 50 ponnds, and between 50 and 70 ponnds. Best three cheeses in each class artificially colored. Best three cheeses in each class artificially flavored. Best cheese in each class of natural color. Best three cheeses for special display in October, of not less than 40 pounds, made on the American factory plan, in the second and third week respectively, in June, Jnly, August and September, 1876. Best three cheeses for special display in Octoher, of not less than 20 pounds, of dairy prodnction, made in the second and third week ,respectively, in June, July, August and September, 1876. Best cheese of oldest make, of each appellation. Best lot of three preserved rennets. Best sample of coloring for dairy products.

Entries for exhibition, either continuously or at the periods of stated displays, can he made free of charge, upon forms, which will be furnished upon application. Producers who apply for room will receive permits for space, and official labels to be attached to the packages. Freight must be paid at point of shipment, which will secure the delivery of goods in the factory.

Blank forms for the entry of products, and any further information desired, may be had upon application to Burnet Landreth, chief of bureau of agriculture.

PAPER BLANKETS.—A suggestion, says the *British Mail*, that has frequently been made in the newspapers that a sheet of brown paper used as a bed covering between or on top of other wrappers, will impart additional warmth and be as serviceable as a blanket, has been acted upon by a Mr. Loder, who has taken out a patent for paper blankets. They are perforated at distances of about four inches, in order to promote the ventilation which the density of the brown paper material interrupts. These paper blankets will he a great boon to the poor, and as they are clean, economical and ready for use in any emergency, they will be acceptable in hospitals, for the supply of which Mr. Loder has already obtained two or three contracts. In schools and private families their cleanliness and comfort will bring them into much service, and in hot climates, where blankets are liable to be infested with insects, these paper coverlets will be found to bo very desirable.

HAIR CLOTH.—The only manufactory in the world where they make hair cloth hy automatio machinery is in Pawtucket, R. I. Horse's tails furnish the hair, and these are purchased in interior Russia at the semi-annual fairs. The tails come from Siberia. About 600,000 horses' tails are used every year. The length of the hair ranges 12 to 36 inches. The 36-inch hair, however, is so scarce that not more than three pieces of that width are made in a year.

THE HORSE.

Trying to Master the Horse's Foot.

In *Wallace's Monthly* we find a letter by "Viator" stating some researches he had made into the philosophy of horse shoeing, in which he is led to an approval of the positions taken by Dr. Dunbar of Stockton. We quote the following interesting paragraphs from "Viator's" letter:

Present Methods of Shoeing Incorrect.

The experience of my youth and early manhood had fastened upon me the truth that no horse's foot, after once having beon shod according to existing methods, was ever as good as before. I found, too, that horsemen and smiths, when questioned upon the point, acquiesced in my conviction. Upon reading up the authors, also, I fonnd them in possession of but little *valid* knowledge concerning it, and found one of the best so conceding. Closely observing the practical result of what was taught by them, I perceived that much of it was insignificant, more erroneous and hurtful, and all a *failure*.

Ever and anon a most oracular denunciation of the smiths for paring the frog or cutting bars, etc., met my eye while perusing the agricultural and live stock papers. These articles would generally suggest that the whole secret lay in the treatment of the frog, etc., and that if it were never touched with the knife it would "supply the foot with moisture," act as a wedge to keep the foot spread out, and similar wonderful offices that would prove the sovereign remedy for all the ills the hoof was heir to.

Why the Old System is Wrong.

One more clear conviction came at least, and has been reaffirmed by reading and observation since, viz.: that *the assumption of effect for cause is the vitiating germ of the old teachings.* Thereupon a "right-about-face" enabled me to unlearn about all that the books teach. The great difficulty that had ensnared the veterinarians seemed this: The features and functions of the hoof under natural conditions were taken as a guide for its management within conditions wholly artificial. This difficulty clearly perceived, the way was cleared for what seemed a true line of investigation, viz.: "How far does the artificial use of the horse supersede natural adaptations of the parts of the foot, or pervert the peculiarities of their growth?"

Dunbar Furnishes Light.

I was helped to the perception of this question by the much abused Alexander Dunbar, who gave me real and valid instruction. He, in his ignorance of existing systems, had uncovered essential facts concerning the relative growth of the various parts of the foot, as well as their natural economy; and his treatment sought to adapt the shoeing so as not to pervert but utilize these, under artificial conditions. Dunbar was a discoverer, hut his discoveries are not wrought into a sufficiently systematic whole to enable all his pupils to fully grasp or apply their merits. While he may master every form of hoof difficulty that he personally treats, his students do not generally equal their master's success. For this reason his method is often brought into disrepute by the failures of his pupils; which failnres the disciples of the old school are not slow to exaggerate into "humbug."

[Dr. Dunbar writes us as follows concerning the reasons why some of his students have failed: "The failures attributed to my pupils by Viator are not confined alone to those simple reasons, but much more frequently to insufficient executive ability in their not exacting strict obedience from the farrier when operating, and the grooms in care-taking before and after the operation. Obedience without reasoning is essential to success, as in compromising with the old school they slide back imperceptibly."—EDS. PRESS.]

The Philosophy of the Dunbar Method.

Here and there, however, a pupil of a mind more philosophic and better disciplined than Dunbar, has grasped his facts and drawn them out into philosophic order; discovering in the process new facts, and establishing correlative principles. If we ever have a system of shoeing that shall meet the exigencies of the foot in all its conditions, that system will be indebted to the discoveries of Dr. Dunbar. But over and beyond his "secrets" (which his pupils may not reveal, except such as are authorized by him to teach), there are truths that form a net-work of systematic treatment that will go far to displace the olden abuses. Primary among these truths are these conditions to the healthy state and action of the foot: 1, onter conformation; 2, freedom of circulation and secretion; 3, normal position of the bones. These conditions are essential, and to maintain and restore them is the aim of an intelligent system of shoeing. If the first condition be disturbed by loss of moisture, or, mechanically, hy shoeing, it is easy to see how the other two conditions must be violated. Therefore in the first condition lies the secret of the health or ruin of the foot; and it is exactly in this question of outer conformation, as effected by contraction, that veterinary science has committed its greatest blunder, and shoeing its greatest ruin.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mntual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Grangers' Business Association.

It becomes necessary to remind those who have done and wish to do business with the Grangers' Business Association, of the change of business manager, Mr. T. J. Brooke retiring from the house and Mr. Dantel Inman assuming management of the same. Therefore it is desirable that all communications for or consignments intended for our house, should hereafter be sent to the "Grangers' Business Association, San Francisco." Amos Adams,

Sec'y Grangers' Business Association

Copies of the Constitution and By-Laws of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Snbordinate Grange.

P. of H.—Subscribers who pay fully one year ($1) in advance for the Pacific Rural Press can receive the California Patron *free*, besides other premiums. See our premium list in another column.

Let Every Grange Celebrate.

It seems fitting to us that every Grange shonld take some part in the celebration of the national birthday. In the first place, as organizations of Americans the Granges should be inspired by patriotic sentiment. This remark wonld apply of course with equal force to all bodies of good citizens; hut it seems to us the Granges have especial reason to recall and refresh the spirit which won victory a hnndred years ago. The true revolutionary spirit is not a tnrbnlent spirit. It is a spirit of strong determination, of wise resolntion, of decisive action. A hundred years ago this spirit met oppression and swept it away. It chal'enged those who would snbject it to unfair exaction and vanquished them; it met wrong with vigorous right; it met monopoly with might. The resnlt was the establishment of a government in which the just and true relations between man and man were observed as they had never been under the old regime. It was a practical reform in the affairs of government which stands to-day as an example and incitement to all who are down-trodden or oppressed. It is to do honor to snch a spirit that our celebrations are planned.

Becanse of its significance as we have interpreted it, there seems to ns especial reason why the Granges should give enthusisstic commemoration to the day. The spirit which trinmphed over oppression a hundred years ago is not vastly nnlike the spirit which will triumph to-day over nnfair exaction and wrong. The spirit of truth which wins battles is not unlike the truth which wins the peacefnl vic'ories of right. When we recall the revolntion whioh gave birth to onr government, it is plain to see how valuable the effusion of its spirit wonld be among the farmers of the county. The contest of 1776 was undertaken in defense of holy principles. The strength of these principles and their appreciation among the people knit our fathers together in the struggle and gave them irresistible power. The result was, as we have said, a true and lasting reform. The field is open for a similar victory to-day. In the contest against darkness and for wider intelligence; in the assertion of upright dealing instead of nnholy combinations and monopolies; in insisting npon the right of the governed to a fitting share in the formation of the government, there is opportnnity for the salutary working of the old spirit, the old nnity of action, the old effective trnth of purpose and trnth of life.

We wonld have the Granges celebrate the Fourth of July freely and heartily. In many interior towns there will be a gathering, and exercises worthy of the day; in these town and county celebrations the Granges shonld be fittingly represented. We notice by our exchanges that it is the intention of several Granges to take a leading part in the processions and other exercises. This is well. But there will be many Granges located out of easy reach of the town gatherings. To such as these we would say, celebrate at home. Call a little social gathering; it is in these that the Grange star shines brightest. Arrange some simple exercises which shall call to mind the early days of the republic, especislly the characteristics ot that time to which we have alluded. Let it go on record that the Grange borrowed new resolution and new strength from the contemplation of the old revolutionary spirit.

The Fonrth of July in the country. This is where we have most often passed the day, and there it seems to us the occasion has more significance than in the crowded, crushing city. Let no one think that miles of parade and tons of explosives are the essential things in a loyal and salutary observation of the day. It is in the heart rather than in the eye and ear that the influence of the commemoration should rest. We believe a celebration is never more impressive than in the quiet of the country. There is certainly far more individual heart in the observation. Each one has a more active sense of his participation. Let no one refrain from doing some honorable thing to show his remembrance of the day because he may live where few can gather together. Wait not for a crowd. Let every little hamlet in the land breathe the old true spirit of the day and let each make some sign of its incoming. Thus the day will leave us better than it found us. Thus may we gain some of the glorious patriotism and truth of the beginning to carry us along our day's journey into the second century of the republic.

Agricultural Education in Germany.

III.—Boarding Schools, Their Expenses, Etc., and the Agricultural Museum.

Allow me to conclude, for the present at least, this record of facts collected concerning the edncational interests of German agricultnre, by presenting your readers, according to promise, with a tabulated view of the 15 agricnltural boarding schools alluded to in my first letter of this series, and some comments on the general subject under consideration. Such a table places facts of considerable importance from the information they contain in a much clearer and more condensed form than they can well be presented in any other manner. In this form they may he of use for future reference to some of your nnmerons readers. Where the letter X is used in a column of figures, it means unknown or indefinite.

The very low rates at which board and tuition, especially the former, are furnished, are really remarkable, when we remember that the comnlaint throughout Germany, as universally as with us since our civil war, is that since the late war with France, victorions as the Germans were, and though paid such a large indemnity, almost all the necessaries of life are more expensive than before the war. What an argument this, among many others, for the fostering of universal peace.

TABLE OF THE FIFTEEN BOARDING SCHOOLS.

	Location.	No. of Teachers.	No. of Pupils.	Age of Pupils Recd.	Length of course in Years.	Board and Tuition per annum
1.	Wirsen.	5	40	16 to 24	1	$150 00
2.	Poppelan.	8	40	15 to 21	2	140 00
3.	Riesenroit.	7	20	15 to 24	18 mos.	102 00
4.	Saarburg.	6	20 Boarders. Some day scholars.	16 to 20	2	100 00
5.	Haderslebon.	5	X	14 to 17	2	100 00
6.	Beberbeck.	6	20	14 to X	2	85 00 *
7.	Riefenstein.	5	10 Paying. 10 Free.	16 to X	1	45 00 +
8.	Lehrhof.	3	24	17 to X	2	25 00 ++
9.	Strirynes.	4	X Paying. 5 Free.	17 to X	X	50 00
10.	Altstadt.	5	8 Paying. 4 Free.	14 to 20	2	50 00
11.	Carlsruhe.	6	12 Paying. 3 Free.	15 to 20	2	Free.
12.	Mettenic.	2	X	17 to 20	2	Free.
13.	Harbach.	3	12	15 to 20	2	Free.
14.	Hartheim.	5	14	17 to 20	2	Free.
15.	Satelin.	4	X	15 to 17	X	$

* Wages for work, 10 to 20 cents per day.
\+ 5 Pay $31; 5 Pay $36; aided by government.
++ Free ones receive about $10 premium.
‡ Wages, 16 years, $6.16; 24 year, $10; 30 year, $15.

Co nments.

While striving to collect reliable facts dnring three weeks' stay in Germany on agricultural education, and in recording them here for the use of my fellow Patrons, the following words of onr St. Lonis "Declaration of Purposes" have constantly recurred to mind:

"We shall advance the canse of edncation among onrselves and for our children by all jnst meaus within our power. We especially advocate for onr agricultural and industrial colleges that practical agriculture, domestic science, and all the arts which adorn the home be taught in their courses of study."

If any details in these letters coucerning the thorough Prussian system may tend to aid our Order, and our friends everywhere, in carrying ont more fully this very noble object of improving our methods of practical education, the writer will feel well repaid. I must here return thanks to the several friends throngh whom I was enabled to learn these facts. To one especially must I give credit, a young lady relative of mine, without whose invaluable assistance as interpreter and translator this work of collecting information in Germany could not have been done. Herself a thorough teacher, she has spent nearly three years there, stndying nuder various noted instructors and paying particular attention to the entire system of German education. Having now completed this task as chosen by herself, she will return home with me. It affords me much pleasure to thus give credit to a very noble worker in

The Cause ol Truth.

Her name will not be nnfamiliar to many of your readers, and without her knowledge I wish to record it here as a tribute to eminent but modest merit, such as all appreciate who admire ability and excellence in woman. I allude to Miss Julia S. Tutwiler, whose name many of your readers have seen in more journals than one, as her facile pen has given ns numerons instructive and charming letters and verses.

When we discuss the various mesns provided in Germany for a complete agricultnral education for those of its youths who may choose that occupation which Washington himself has called "the most healthful, most useful and most noble employment of man," there is another institution which can be appropriately included nnder this head. This is the very extensive and admirable

Agricultural Museum in Berlin,

No. 26 Schutzen strasse. It is in charge of Dr. Wittmack, a gentleman eminently fitted for his post, and withal a thorough English scholar. Being favored by an introduction to him from Minister Friedenthal, I enjoyed the privilege of his valuable explanations while thoroughly examining its large and well classified collection. The doctor informed me that they are now somewhat crsmped for want of room, as they are occupying temporary quarters only, but that within five years it is proposed to erect a building especially adapted to their wants.

A dozen rooms or more of fair size contain their specimens, arranged in very compact form. Anything like a full description of a collection which, by its systematized object teaching, is such a valuable aid to education, would form a series of letters. Here, only brief allusions can be made to some of its main features.

The first, or "grain room" furnishes material for honrs of study. In a large glass case and outside of it are tastily arranged samples of grains and various seeds in large and small jars, as well as heads and straws together. You see there a handsome cotton plant from Georgia, and onr California wheat and barley, as exhibited in the Vienna exposition. There are also large wax models of the blooms of different cereals, and fine samples of sugar. But nothing there was to me so peculiarly interesting as the clear mode of illustrating what chemists call the *qualitative* and *quantitative* analysis of plants. There are long glass tubes containing, in solid and liqnid forms, all the chemical elements, and the oils, the water, the starch, etc, composing different agricultural products; for instance, the sugar beet and its plant, potatoes and the potato plant, oats and oat straw. The amount analyzed of each is a kilogram, or something over two pounds (2.2), the substances obtained by analysis being shown in grammes or thousandth parts. A large glass jar, alongside of the tubes, contains a kilogram of the raw product analyzed.

In other rooms are wax models of fruits and roots, some illustrating diseases of fruits, of plants and of animals. The walls are adorned with valnable maps, charts and engravings. There are thoroughly graded samples of wool, of cocoons and silk, bees and honeyoomb, models of different farm implements of various ages and races of mankind, samples of plows, etc., dairy furniture, farm machinery and fishing tackle. There are models of troughs and dams for fish breeding. One room contains over 1 500 samples of wood. There is a large agricultural library connected with it, containing thousands of books and pamphlets, more than 15,000 in all.

In short, all through this splendid establishment, which is certainly one of the most complete to be found in the world, you see all those marks of minute thoronghness for which our German and especially onr Prussian friends are distinguished. Many features in it may well furnish models and guides for such a museum as our Order is now forming at Louisville, Ky., in connection with our National Grange headquarters, and for our other National and State collections in the interests of agriculture.

Really, in the future, each State Grange should have just snch an agricultural museum; if not so very extensive, at least qnite as thorough in its way.

Whenever our agricultural education is systematized, extended, illnstrated and honored as it shonld be, instead of the great drainage to which our agricultural population has been subject, to the injury of ourselves and to the injury of our towns and cities, wo shall begin to see the ranks of our honorable profession reornited by many of the brightest and best of our sons, as it should be. J. W. A. Wright.

London, Eng., April, 1876.

Analysis of an El Dorado Mineral Water.

Prof. Hilgard furnishes ns with the following interesting report which he made on a subject presented him by El Dorado Grange:

C. J. Sheldon, Esq.,—*Dear Sir:* In accordance with the suggestion and reqnest of Mr. C. D. Brooks, on behalf of your Grange, that I should examine a mineral water from a mine, whose beneficial effect npon the soil of your region has been remarked, I have made of it such analysis as the small quantity furnished has permitted, with the view of obtaining an insight into the most prominent needs of your soil. I regret that the insufficiency of the material has prevented me from obtaining definite numerical data; but I thiok the result is nevertheless sufficient to indicate its mode of action as a fertilizer.

The total amount of soluble matter in the water is at the rate of 90 grains per gallon.

Upon boiling it, carbonic acid gas escapes, and after evaporation there remains a white residue, a part only of which again dissolves in water.

The part soluble in water consists mainly of chloride of potassium, with small qnantities of snlphates of lime and magnesia.

The less soluble portion consists of sulphate of lime (gypsnm), carbonate of lime (calcareous spar, limestone) and a small amount of bone phosphate of lime. Also a trace of iron and magnesia.

The amount of the latter snbstances is quite small; as regards the phosphate, so much so that I should not attribute to it any large share of the fertilizing effects. So far as I can judge at present, I should sttribute the manurial efficscy of the water to one or both of two ingredients, viz: the chloride of potassinm, and the gypsum. The latter substance being cheap and easily procured, I snggest that your Grange, and others located on similar soil, try its effects upon your chief crops the coming year, using it at the rate of from three to six bushels per acre. As regards potash, I wonld advise two sets of experiments. One, of the direct application of crude commercial "potashes," at the rate of abont 75 pounds to the acre. Alongside, a similar (say qnarter acre) plot dressed with slaked lime, at the rate of about four barrels per acre, or less if the soil is rather light. The object of the latter experiment is, both to ascertain the effect of lime in general, and to test its efficacy as compared with the potashes; my impression being that your soil contains abundance of potash in the nnavailable form, which will probably be hronght into action by the lime. It will, however, be very desirable to gain farther insight into the nature of your soil by direct examination, which I will give it if yon will supply me reliable and representative specimens, taken in accordance with the directions I furnished Mr. Brooks. Eug. W. Hilgard, Prof. of Agr.

Univ. of Cal., June 23d.

The Grange at Haywards.

Editors Press:—It has been my good fortune to be favored with an invitation to attend the festival of the Grange at Haywards on the 10th inst., and I have ever since that memorable day intended to avail myself of your nniform kindness in Grange matters by asking space in your columns to express the thankfulness I feel to the good Patrons there for their hearty welcome and abundant cheer extended to me and my better half. I have, however, delayed doing so until now, because I desired to show some appreciation of their goodness to us by manifesting a desire to be useful in the business of most farmers there in the matter of sale of fruit, etc.

Reverting to the festival, it was a Grange feast, and when that is said the highest meed of praise is given; that it was first-class of its excellent kind I am not alone as a witness; Master Webster, our brothers Cressey, Inman and Blanchar, with sisters Cressey, Inman, Blanchar and Thompson will sustain me, and our only sorrow in the whole matter has been that we, the guests, were so taken up with our own enjoyment that among us all none were thoughtful enough to thank our sisters for the exqnisite repast they favored us with and which must have cost them no little trouble to prepare.

The addresses by Master Webster, Brothers Cressey and Blanchar were unusually good, especially that by the Worthy Master of the State Grange. Speaking as a judge, and what lawyer does not hope to be one, there is oratorical power of no mean order possessed by Master Webster, and the honest preparation which he gives to his discourses marks them as worthy of being listened to by audiences as intelligent even as the one he was so fortunate as to be before on that occasion. The day was beautiful and no one need say that the scenery and surroundings were charming. Haywards needs no praise from me nor any one else, and the whole affair was characterized by friendliness and pure enjoyment—it was a marked success.

Eastern Shipment of Fruit.

I have said that I waited till now to mention this visit, because of a special reason. This is it: At the meeting and in the business talk at the Grange hall the project of sending fruit to the Eastern cities by the new patent refrigerator car was discnssed and a committee appointed to meet the owner of the patent at San Francisco on the following Monday to consider the matter. The committee met Mr. Miller, who owns the patent right, at the office of the Grangers' Business Association, and arranged to forward a carload of currants and cherries. The hot weather, however, so materially affected the crops that the scheme was abandoned so far as sending that carload from Haywards was concerned, but as this matter of shipping fruit East is one of considerable importance to our brethren at Haywards, I thought I would defer publishing this letter until I could tell them what was done further in the matter. The manager of our Grange business house, appreciating the situation and desiring to further any project which tended to benefit fruit growers, immediately detailed one of his assistants, Brother Vanderbilt, to go with Mr. Miller to Vacaville, to seek a load of apricots and peaches; the crop there is light and the car had to be sent forward to Marysville, where it has been loaded, and it went East Sunday. A second car is being prepared and will be forwarded this week under the immediate charge ot a person from Grange headquarters. A fair trial will be given the patent, and in the mean-

time such steps have been taken that if found to be successful the patent right is secured in such manner as to place it at the disposal of the producers instead of its becoming another means of profit to middle men. The prospect for success in this matter is very good, and if it should be fully realized an important element will be introduced into the fruit business of California. If successful at all, it is probable that the patent and process can be so utilized as to enable the shipment of fruit in ordinary packages without wrapping in paper, by the ordinary slow freight trains and at correspondingly low rates, thus making it possible to send East other than the highest priced fruit. As matters progress in this connection I shall, with your leave, through your valuable paper keep our friends at Haywards advised.

A. W. T.

WARNING.—It is not strange that the Grangers are often bewildered and distrustful of their best friends. Every device is used to deceive them. It seems that a number of unprincipled parties in New York city have obtained possession of lists of Grangers in the various States, and are selling the names and addresses to swindling firms in that and other cities, thereby enabling the rascals to flood the country with plausible appearing circulars to dupe the credulous and bring reproach upon the Order.—*Hoosier Patron.*

AGRICULTURAL NOTES.

California.

ALAMEDA.

THE GREEN POINT DAIRY.—Washington *Independent*, June 24th: The Green Point dairy rancho, under its present manager, S. Davis, Esq., is turning out a great quantity and an excellent quality of cheeses. About 20 per day or nearly 150 per week are manufactured in the buildings of this establishment. The lands owned by the company aggregate about 4,500 acres in all, and they have cut 1,500 tons of hay on the same this year. They have 250 milch cows, and it is an interesting sight to look at the eight rows or lines of stalls when the cows are all brought in and standing there ready to be milked. Twice every day, morning and evening, they are driven in from their pasture for this purpose. The two large cheese rooms with their sides all covered with shelves and the shelves filled from top to bottom with cheeses also afford a pleasant sight. The new narrow gauge railroad passes over the lands of the rancho close to this establishment, and will soon furnish an easy transit to San Francisco for all the products of the rancho.

COLUSA.

DR. GLENN'S LOSS.—A dispatch from Chico, dated June 26th, says: A strong north wind has prevailed in Colusa county for the past 24 hours, destroying several thousand dollars worth of property. Dr. Glenn's large warehouse was blown into the river at Jacinto. About 320 acres of barley belonging to Glenn were destroyed by fire last night.

CONTRA COSTA.

HARVEST—Point of Timber correspondence *Gazette*, June 24: Harvest is well in hand and heading will be over in about two weeks. Carter's threshing machine blew the first whistle May 29th, and several machines are now at work. The first of this season's harvest was shipped from the landing June 9th, being 90 tons of barley from George Fellows. Barley turns out well; but Sonora wheat upon summer fallow is going back on them. The wind played havoc with grain between here and Moore's landing, but not to any great extent between here and Antioch.

FRESNO.

NEW ENTERPRISE.—*Expositor*, June 21: We learn that a new company is being organized at Kingsburg to construct a new canal from Kings river for the purpose of conveying water for irrigating the land in the vicinity mentioned. A number of responsible and energetic citizens are interested in the enterprise. It is proposed to divert the water at a point lower down than that occupied by the works of the Fresno canal and irrigation company.

LOS ANGELES.

MAGNOLIA FLOWER.—*Herald*, June 24: Most of our citizens are aware that there is a magnolia tree eight or nine years old flowering in the splendid grounds surrounding the residence of Mr. C. E. Thom, on Main street, but they are perhaps not aware that this, on the Pacific coast rare tree, is now covered with blooms, one of which was last evening presented to us by Mr. Jackson A. Hathwell. It is a truly beautiful flower, snowy white and full six inches in length and diameter. It is as fragrant as beautiful. Major McPherson gives us the following concerning the magnolia: "Magnol, a French botanist, was the first to introduce this right royal flower of North America to Europe. There are some seven species of this admirable order of the flowery kingdom."

MONTEREY.

GRAIN INJURED.—*Democrat*, June 24: From what we are told by intelligent farmers coming from that quarter, the hot spell of last week was very injurious to grain from the Spence rancho southward. The early wheat especially was much shrunken by the scorching sun of Sunday and Monday. It was an ill stroke of luck. In this neighborhood and hence to the sea, the report is that no great damage was done.

EGYPTIAN OATS.—As a sample of what our lands are capable of, we note a bunch of Egyptian oats which we saw in H. S. Ball's office this week. It came from land cultivated by E. Gillette, part of Sausal rancho, in this vicinity. The stalks are seven and a half feet long, having heads that will, as estimated, yield from 100 to 120 bushels to the acre. The intention is to forward the sample to the Centennial exhibition.

NAPA.

HOPS.—*Star*, June 24: St. Helena has this year about 80 acres of hops, divided among growers as follows, A. Clock, 35 acres; C. A. Story, 30 acres; R. F. Montgomery, 7 acres; James Dowdell, 8 acres. These people may produce anywhere from 30 to 50 tons worth at a paying rate of 25 cents per pound. They may be much higher or lower. The season has not yet far enough advanced to decide their character for the year; it would be premature now to speak of the probable quality or quantities of the crop.

PLACER.

SYSTEMATIC AND PROSPEROUS FARMING IN THE FOOTHILLS.—*Transcript:* Ranchers in the foothills, as a rule, have the reputation of being shiftless and improvident, and we are sorry to say that in many cases the reputation is well earned and richly deserved. There is one ranch we know of, however, that shows for itself that its owner is a genuine farmer. Everything around the place is in order. Heretofore the principal production of the ranch, like most others of the foothills, has been hay. Now that the railroad can transport the article in winter, it is feared by producers in this county that prices will not be so remunerative as formerly, and Josiah Dodge, the owner of the ranch in question, and which is situated four miles below Grass Valley, has made his calculations so that prices of that commodity will not affect him. His plans, we believe, are so good that we will give them for the benefit of others similarly situated: He proposes to raise no more hay for market. All the productions of the farm will hereafter be fed to animals on the place. He has meadows that will produce 50 tons of hay a year from the natural growth. He proposes to keep cows enough to eat it all. His side-hill land is treated in this manner: He has divided it into four fields of about forty acres each. Field number one was sown to rye about four years ago, field number two was sown three years ago, number three was sown two years ago, and number four was sown last winter. There has been a good crop on three fields each year from volunteer growth. In the winter and spring, when the ground is not too wet, cows are turned on it, and they obtain much of their food there. In the summer, when the grain has attained a good size, hogs are turned in and kept there until they are fatted for market. The animals feeding upon the ground tend to enrich instead of impoverish the soil. Every four years each field in turn will be plowed deep and resown, if necessary. This kind of a crop Mr. Dodge has found by experience to be the most profitable of any ever raised by him, and the expense is but a trifle compared with the old methods of raising hay on uplands for sale. All the hay raised on the natural meadows, as before stated, will be fed to milch cows in the winter and spring when the fields do not afford sufficient. The manure made on the place is used to enrich the land which is used for raising vegetables, and principally potatoes. Mr. Dodge has lately bought a Cummings cutter, made in New York, which is run by water power, and is capable of cutting one ton of hay per hour. The hay after being cut is mixed with the bran, and upon this food his cows are made to give nearly as much milk in winter as in summer. From the butter made, the pork and vegetables produced, the income of the farm will be much greater than before, and the labor required will be much less. Mr. Dodge thinks rye far superior to any other crop, alfalfa not excepted. If any one wants to see a good farm and a prosperous farmer, they can do so by calling on Jo. Dodge.

SACRAMENTO.

THE MELON SUGAR ENTERPRISE.—*Bee*, June 24: Josiah Pool, the pioneer swamp-lander of Isleton, Old river, is in town. He represents that the erection of the sugar factory there will soon be begun, and the machinery and superintendent are shortly expected to arrive from Europe. They propose to make the sugar from melons, and they intend to pay a price for them which will justify the land owners in that vicinity (Brannan, Grand and Andrus islands) in holding their lands at $200 an acre.

MORE BOYS WANTED.—*Record-Union*, June 26: The proposition to hire white boys instead of Chinese to do light work, such as picking and packing fruit, appears to be meeting with a favorable reception throughout this section of the State. J. F. Whyte, who takes great interest in the matter, has received from S. R. Chandler, of Lincoln, a communication asking information on the subject, as he (Chandler,) has the Nickerson orchard near Lincoln, and thinks of employing a number of boys, if satisfied that they will at least do as well as Celestials.

SAN JOAQUIN.

HIGH WATER AND THE CROPS.—Stockton *Independent*, June 24: One of our prominent grain merchants has recently returned from a trip up the valley and brings back interesting intelligence about the crops, the busy harvesting everywhere in progress, and the remarkably high water in the San Joaquin. He says that but one ferry on the whole length of the river is in a condition to take teams across, and that is Fairbank's ferry, at Crow's landing, 17 miles above Grayson. At G. W. Trahern's ranch, below the mouth of the Stanislaus, the river has cut a new channel, sweeping far inland in a greater body than the main stream. At Bantas the water is within 100 yards of the town, and almost surrounding it on two sides. Between Bantas and Lathrop the river is at least five miles wide in one sheet of swiftly flowing water. On reaching Bantas he found that he was unable to cross at any of the ferries, and was obliged to leave his horse and buggy and come in on the cars. He also reports that the yield of grain is falling short from one-third to one-half of the estimated quantity, notwithstanding the fine prospect presented by the large growth of straw and fine heads. Fields that were supposed to promise a yield of not less than 30 to 40 bushels to the acre are turning out from 15 to 20 in actual results. An inspection of the heads shows that at each end they are deficient and have not filled out the kernels, and the clusters have, as a general thing, but two kernels where four should have been, the missing grains being represented by empty husks. The cause is a lack of late rains at the critical time when they were needed. The stalk grew finely and got an excellent start early in the season, but later in the season when the moisture was wanted to fill up the heads, it was lacking. On McPike's ranch were fields of barley, estimated by good judges to yield from 75 to 90 bushels to the acre, the actual yield of which has been 40 bushels, and this condition of things is reported to be a universal fact throughout the valley on both sides of the river. One noticeable feature which he says he observed was the fact that on the sandy loam, and all soils except the adobe, the winter sown wheat on winter plowing was far superior to that on the summer fallowed land. Wheat sown in February and plowed or harrowed in yielded greater results than the fall sown wheat.

WEEVILY WHEAT.—Weevily wheat is made into flour for the China trade, large quantities of it being disposed of in that way. The weevils are all blown out before the grain is ground. The trade in flour with China is growing to be an important one, although a first class article is not in demand. A brand called XXX is uniformly demanded. If we can get the whole Chinese nation to consuming California wheat and flour, a more satisfactory market than the European will be opened almost at our doors. The present demand is, no doubt, created by those who have lived in California a number of years and acquired a taste for our breadstuffs, rather than by the British and American residents of that country, who would, doubtless, require the very best quality of the article.

THAT LARGE HEADER.—Messrs. Dewey & Applegarth, of Plainsburg, are having a monster header built to operate on the sand plains, the cutting and running gear of which is being built at Matteson & Williamson's. When finished it will be the largest header ever constructed, having 29 feet of knife sections and cutting a swath 28 feet wide. The wheels are of iron, five feet in diameter and 10 inches width of tire, braced unusually strong with double spokes of angle iron. This mammoth machine will cut nearly four acres of grain for every mile traveled, and, at a snail's pace, should cut 50 to 60 acres a day. What would our Eastern farmers, with 40 acres of ground, think of farming on such a scale as this?

IMPROVEMENTS.—The San Joaquin Valley agricultural society is expending about $1,500 in the erection of new stables on their grounds, in addition to the conveniences already there. The sheds for the exhibition of sheep and cattle are to be removed to the east of the grand stand.

SAN LUIS OBISPO.

PASTURE BURNED.—*Tribune*, June 24: Major Pond informed us on Friday that a few days ago a fire broke out on the Eureka ranch, about two miles east of his house, and before it could be subdued burned over 600 acres of his best pasture. Supposed to have caught by some person dropping a lighted cigarette.

SONOMA.

HAY.—Petaluma *Argus*, June 24: The amount of hay produced in this part of Sonoma county this season is undoubtedly much greater than in any previous year. The area harvested is a great deal larger, and the yield per acre above the average. The amount of old hay stored in town is about 100 tons. The quantity of this year's crop thus far received is about 600 tons, and at present it is arriving at the rate of 50 to 60 tons per day. A. P. Whitney has already sold ten tons of baling rope, and will probably sell 20 tons more during the season. Five pounds of rope is required for one ton of hay. Prices at present range from $8 to $9 per ton for average quality, which is much lower than usual. We are informed that hay at $10 per ton yields to the producer about the same profit as wheat at $1.50 per cental. So large is the quantity of hay produced in this vicinity this year that the present storage capacity will fall far short of providing for all of it.

STANISLAUS.

HARVEST FIRES.—*News*, June 23: A threshing machine at work for G. P. Ostrom on Mr. C. C. Baker's ranch, together with a stack containing some 700 bushels of barley, were burned last Saturday. The fire caught from the sparks of a steam engine and spread so rapidly that no time was given to save the separator and derrick forks. On Sunday last, three acres of standing wheat on T. A. Wilson's ranch, near Grayson, were burned. Out of his large fields, that burned was the only portion of his crop not insured. On Saturday last a grain stack on Mr Armstrong's ranch, containing about 800 bushels, was burned. The stack was being threshed at the time, and it is not known whether it was set on fire by the engine or not. The separator belonged to Mr. Riley, and was damaged considerably by the fire. On Wednesday last a thresher, large grain stack, derrick wagon and fork, belonging to Jack Dallas, on his farm east of Turlock, were burned. We have not heard as to what the loss will aggregate, but learn that the grain was insured to some extent. Mr. Wardrobe lost about 300 acres of sheep range by fire last Tuesday.

SUTTER.

SUCCESS WITH FLAX.—*Banner*, June 15: We were shown this week a specimen of flax grown on the farm of B. F. Walton, in this county. It is of large growth, and finely filled heads. Walton has several acres which he intends cutting for seed.

TULARE.

HARVEST.—Grangeville Cor. *Delta*, June 18: This whole country, from the slough to the lake, is one vast area of waving golden-headed grain, while everywhere now is life and energy; headers and header wagons, with groups of men and horses in gangs, are clipping off the long, fat heads and piling them in huge stacks for the thresher. I am told that twelve new headers have been brought into this section this season, and that none of them are idle; the only fear is that there may not be enough of them to harvest the grain in time to prevent loss. Two new steam threshers have been bought by the ranchmen themselves, and one vibrator with horse power; besides, a steamer is coming from near Tulare to help us, and all will have enough to do.

A TIMBER ENTERPRISE.—C. W. T., writes to the *Delta* concerning bringing timber from the mountains to Visalia: "I can now safely say that we have at our control a fine body of timber and an excellent river which can be used to deliver lumber at our doors for one-half the price that we now have to pay, and still leave a handsome profit to the millmen. There is no business in the country that would remunerate a few men with capital more than this enterprise, and being so feasible, practicable, remunerative, and not expensive, it seems strange it has not been taken hold of before. I could, with a few river drivers, soon put Kings river in good driving order for lumber, and make it a thoroughfare for millions of feet of lumber and thousands of cords of wood; and by fixing the water ditches they can be made useful for the same purpose, to deliver the lumber to the ranches and save hauling."

Oregon.

THE FLOODS.—Recent telegrams from Oregon speak of almost unparalleled floods in the Columbia and Willamette rivers.

THE GRAIN OUTLOOK.—*Oregonian*, June 17: As the season progresses, the crop prospects in the State improve, and it now seems likely that the numerous predictions of what has never occurred, a failure of the wheat crop, are to fall to the ground. The editor of the Corvallis *Democrat*, who is situated in the center of the wheat producing section of this valley, in speaking of this matter says: Never in the history of our country have the farmers been blessed with more flattering prospects of an immense yield of cereals than at this time. The continued rains of the past unprecedented winter caused fears that the farmers would be unable to sow much of their ground, particularly where it lay flat and low, and the consequence was that wherever new ground could be had, the farmers have broken up and sown large tracts of fresh soil. The spring was not so unfavorable to the sowing of grain as many feared it would be, and most of the old ground was sown, though some of it would have been very late for an ordinary season, yet the splendid showers to which we have been treated, together with the cool, cloudy weather, has brought even the late sown grain forward, and without any more rain it will make a fair crop, while that sown early and the large amount sown on new ground promises an immense yield. A much larger area has been sown to wheat and oats than ever before in this county. The above remarks are probably applicable to the Willamette valley generally.

General News Items.

THE managers of the St. Gothard tunnel works have notified their workmen that they will soon be discharged.

GENERAL CROOK has had the first brush of the season with the Sioux Indians, and came off victorious. He had a horse killed under him.

REAR-ADMIRAL JOHN J. ALMY is detached from the command of the North Pacific squadron July 1st, and ordered to return home and await orders.

THE official order has been issued by the Secretary of War relieving General Schofield from the command of the Military Division of Pacific and assigning him to the West Point military academy, relieving Col. Rueger. General McDowell will take command of the Military Division of the Pacific.

WHILE considering the Sundry Civil Appropriation bill, on motion of Banning, an item of $50,000 was inserted for Wheeler's geographical survey of territory west of the 100th meridian. On motion of Caldwell, an item of $14,000, was inserted for Prof. Jouney's survey of the Black hills.



"Uncle Sam's a Hundred."

A Centennial Ode.

Oh! ye powers! what a roar,
Such was never heard before—
Thuudering from shore to shore:
"Uncle Sam's a hundred."

Cannon boom and trumpets bray,
Fiddles squeak and fountains play—
'Tis his great Centennial day:
"Uncle Sam's a hundred."

Stalwart men and puny boys,
Maids and matrons swell the noise:
Ev'ry baby lifts its voice:
"Uncle Sam's a hundred."

Nervous folks who dote on quiet,
Though they're half disiracted hy it,
Can't help mixing in the riot:
"Uncle Sam's a hundred."

Brutes that walk and birds that fly,
On the earth or in the sky,
Join the universal cry:
"Uncle Sam's a hundred."

Well, suppose he is, what then?
Don't let's act like crazy men.
Must we take to fooling when
"Uncle Sam's a hundred?"

There he stands, our modern Saul—
Head and shoulders above all;
Yet "*Pride goes before a fall*,"
E'en though one's a hundred.

"What's a hundred in our day?"
Foreign Uncle Sams will say;
"Let us sit and watch the play—
He is but a hundred.

"Granted he's a shapely youth—
Fair and ruddy—yet, forsooth!
He's *too young*—and that's the truth!
Only just a hundred.

"When he's twice as old, pard'e!
'Twill be easier to foresee
What will be his destiny—
Now he's but a hundred.

"When he's played his boyish prauks,
Should he seek to join our ranks,
We'll reflect. But now—no, thanks!
Why, he's but a hundred!"

Yes, our uncle's years are few;
He *is* young—the charge is true.
Let us keep that fact in view,
Though he counts a hundred.

Don't let's tempt him to ignore
Warnings that have gone before;
Perils both by sea and shore,
Now that he's a hundred.

Let us strive with earnest heart,
Each of us to do his part,
So that he may 'scape the smart,'
Seeing he's a hundred.

And with solemn, grateful thought,
Of the deeds that he has wrought,
Guided, cherished, favored, taught,
Till he's reached a hundred,

Let us, as we vaunt his worth,
Mingle soberness with mirth,
While we shout to all the earth,
"Uncle Sam's a hundred."

—*N. Y. Evening Post.*

Overland Chat.

[For the PRESS by MARY MOUNTAIN—No. 2.]

No one can fully realize the desolate sameness of Nevada scenery until they travel through and spy out the land.

Reno in the cool, clear air of morning had a brisk and business look with its clean, new houses and faces of

"Consolidated" Keenness,

And in several other little towns the homes looked as homelike as is possible with such bleak surroundings; but our pilgrims seemed to think it would be wild-catty indeed to take stock in the soil or visible productions of this famous country.

All along here our San Francisco stock brokers broke out in such eager excited talk one might imagine them sniffing very closely the richness of hidden treasure. The wife of one of these was a friendly, chatty little body, and told me they would have gone to see the old mother long ago if it had not been that

"Slocks Acled So Mean;"

And much of her Centennial pleasure depends upon stocks behaving as they are expected to. I admired the good sense that had led her to travel in a neat dark calico; and the skill of her cookery, toasting, boiling and broiling over the queer car stove was truly wonderful. When we reached Omaha this chrysalis became a butterfly and hardly a lady in San Francisco could excel her in richness of garments and jewelry.

At Ogden we branched off to

Sall Lake City,

Accompanied by the German professor and our little school-ma'am. We had by this time a good right to say "our school-ma'am" for she was traveling alone and glad to be gathered under our wing.

Of course the Professor's little children were along, and a pleasure to have them; for they are intelligent, patient and polite. Litile Otto, the youngest, had been homesick the day before and asked "Where, then, is our home, papa?" The answer was, "Here, my child, in the seat with papa." So he tried to accept it and began to ask the other children to visit his home. How glad we were to leave those close homes and prance away to the beautiful valley with plenty of room! And now again my adjectives begin to weaken, for this valley and city and grand surrounding chain of snow-capped mountains form together the most beautiful sight I have ever seen.

Doubtless the swift change from the ugliness of

The Alkali Desert

Tends to highten the charms of this perfect oasis that is now set in our memories as a joy forever.

The valley is larger, the city handsomer, the mountains whiter with snow and more complete in circle than I had expected, for they reach an arm along the northern boundary to keep off cold winds and nestle this darling nook in a climate full of health and sweetness.

As we ascend a terrace of the town the eye takes in the whole area of 20 miles wide, 25 miles long, and close in the foreground are the houses of Brigham, the broad, low dome of the tabernacle, the temple slowly growing into a thing of beauty, and ah, "the whole city full" of pleasant homes and neat, quiet streets.

The high-walled gardens are filled with fruit trees, vegetables, and a gay trimming of flowers and little white-headed children peeping through the gates.

If I say that the public buildings are handsome, the smoke of manufacturing like a cloud in the distance, the Great Salt lake shining and still under the far off mountains, let no one think I am forgetting the farms, those gems of

Little Farms Well Tilled

That not only dot the valley but cover it with closest links of verdure. We can have no quarrel with the religion of these farmers as we look upon the work of their hands and see that industry and economy are blessed here as they deserve to be everywhere. Crops are not far advanced, some just out of the ground and the tallest grain only a few inches high; but these are the last days of May, and they say the season is not forward as usual. Pasture grass is rank and rich; good butter on our table, and all food good and cheap both at Ogden and Salt Lake.

We visited the tabernacle, and were pleased to find the inside so bright and cheerful. Wreaths and immense hanging baskets and vases are gracefully hung in the wide dome, and in the central aisle is a large marble basin ornamented with crouching statues, and here, when Sabbath days are warm, the fountain plays for the cooling of the people. Twelve thousand can be seated here, and for exit 20 doors, nine feet wide, open outward. The tabernacle is only used for summer worship, as there is no heating apparatus.

And how shall I describe the organ? It is immense and beautiful, larger than many a modest cottage I have known, and it takes four men to blow it. Our guide said it is the largest organ in the world and thoroughly Mormon in design and execution, wholly the product of home talent and home material. This guide or janitor of the holy places was quite an elderly man, nimble and talkative. As we asked after the health of Brigham, he straightened himself and answered with enthusiasm, "I am happy to say, sir, that

Our President

Is again in excellent health and is making a trip in southern Utah. He is 75 years old today, and looks about 60. Why, sir, he walks off as straight and strong as I do," and upon this, away he went leading the way to the tabernacle, and put us all to shame, for his dapper legs sped along over the walk as though the springs had been newly oiled and meant to run forever. We afterward met him on the street, outpacing everybody, and could not help laughing at the pains he took to impress us with the spirit and extreme youthfulness of

Veteran Mormons.

Of course we were too polite to ask him how many wives he has.

We went into the art gallery. Well stocked with the usual pictures and excellent stereoscopes, at San Francisco prices.

This day (June 1st,) was not only Brigham's birthday, but monthly fast day with the Mormons, and services were held in all the ward churches. We went into the one near Brigham's house and saw two of his wives, rather heavy, ordinary looking women, with ruffled gowns and stylish hats. The service was conducted by the President's brother, Joseph Young, and the prayer was very fervent, after the ancient Methodist style in manner and expression.

Nothing could exceed the zeal with which he demanded blessings for the saints, and especially for Bro. Brigham. "O, Lord, bless him in his bones and in his flesh; in his head and in his body, and in his stomach; bless him, O, Lord, in all the functions of his tabernacle." This was twice repeated like a lesson, and is correctly reported. If prayer can hold him together, Bro. B. will last a long time yet.

The exhortation was lively and reproachful, for the saints had not come up gladly to the house of the Lord, and the few who were present took meekly the censure that should have fallen upon the absent. There were present only 13 women, five men, including the speaker, and a few children.

A man with a loud clear voice played the organ and "carried the tune" at such a rate we could hear no voice but his, although some of the women moved their lips as if faintly helping.

As our time was limited, we could not quite finish the usual course of sight-seeing, but returned well satisfied to Ogden on a special train that took up a director and the president of the road to inspect the break in Weber canon.

Prize Essay on Eyes.

There are a great many kinds, colors and shades of eyes. There are blue eyes, gray eyes, brown eyes, red eyes, eagle eyes, hawk eyes, buckeyes, soft eyes, stony eyes, green eyes and cross eyes.

Poets seem to have a great deal of sympathy for blue eyes. Whole pages have been written about "eyes as blue as the sky;" but who ever thought of writing to his lady love such a sentiment as this: "My dear girl, your eyes are as gray as a mouse." Why, he would get notice to quit. If I were a young lady, I'd never have gray eyes at all; they should be hazel, which is a very fashionable color—and it wears just as well as gray.

Then there are brown eyes, two kinds of red eyes, and two of black. One kind of black eyes is the kind a man is born with, and which he cannot help; the other kind is when some other man "gives him a black eye." This kind is not fashionable in this neighborhood; in fact, some people would rather do without black eyes all their lives than to have this kind. Sometimes Nature intends to give a man brown eyes, but she makes a mistake and gives him red ones. Red eyes do well enough when the color is natural. Some people have one red and one blue eye, and we treat them just as well as we do anybody else—for no man is responsible for the natural color of his eyes; but there is a kind of red eyes that men are accountable for. It is the kind caused by strong drink; by midnight debauchery; by wine that quencheth not. Let all such beware, for not only men hold them responsible, but God also; responsible for the thoughts and actions that accompany such eyes; responsible for their wasted and ruined lives; responsible for the want and misery of their families, and for the appetite for strong drink that ever tempts the drunkard's child.

Then there is the eagle eye. Great warriors, mighty chiefs, heroes of every land; men whose glance is like the lightening's glare, and whose voice is heard in thunder tones; men who rule minds, as other men herd sheep—are always spoken of as having an eagle eye.

The hawk eye is an expression of the eye that belongs to men of narrow dispositions; men who are always fearful of being cheated; men who distrust every one, and act as if the whole world were a set of robbers and they were the men to find them out and report accordingly. This kind of an eye is sure to make its owner unhappy.

Soft eyes are the eyes of woman—gentle, loving woman—and they denote submission; hence soft-eyed women are easily governed. They have but one idol, and that is their husband. and such a woman is a good one to have in a family, for no matter how selfish and disagreeable all the other members of the family are, she soothes them all down, rubs all their feathers the right way and keeps peace and quiet there. So I advise all you young men who are looking for a wife to hunt up a soft-eyed woman; you can abuse her all you please, and she will never answer back. But beware of the girl whose eyes sparkle when she is glad, snap when she is mad. She would be a splendid woman to help you along in the world, but she would not be imposed upon.

Again, there are people with stony eyes—eyes devoid of all sentiment, all daring, all nobility. No man with stony eyes ever rushed into a burning building to save his wife or child; no boy with such an eye ever

Stood on the burning deck,
Whence all but him had fled;

No girl with such eyes ever sat up till two o'clock in the morning knitting a tidy for a birthday present for her mother; no young man with stony eyes ever mortgaged his watch and chain to buy licorice drops for the girl of his choice; and no woman with stony eyes ever cooked a breakfast, nursed the baby, baked buckwheat cakes and did the churning, with a smile on her brow at the same time—oh, no! nor made a martyr of herself for any cause. Never trust your life, property or affections to a man with stony eyes. Such men will bury their dearest friend without a tear. The sufferings of others never cause their eyes to moisten; no grief, however deep, ever causes their eyelids to quiver; no joy makes them soften, no shock gives them pain. They stare at you always the same—hard, immutable, immovable, stony and expressionless. No sympathy, no help, no compassion, ever came from such eyes as these.

Cross eyes. This is a defect in the arrangement of some children's eyes, and it should receive speedy attention from a good oculist. No child should be allowed to grow up with cross eyes—it is not just to the child. But there is another kind of cross eyes, and it is very hard to cure. It is caused by getting mad so quick that your eyes don't have time to affiliate with your temper, and you turn your head so quickly, to look at the offending party, that your "off" eye looks at your nose and your "near" eye looks at what you are mad at. This is a very dangerous disease, and if suffered to run on, will draw the nose up slightly at the point, and draw down the corners of the mouth. I have seen some otherwise beautiful faces spoiled by this kind of cross eyes.

Then there are the merry, dancing, sparkling, laughing eyes of childhood—eyes that look at you from the depths of souls as unspotted as the snow; eyes to which all things are funny, or wonderful, or sad. To many the memory of such eyes is a dream—the grave having closed over bright, loving eyes long ago; and time in its flight cannot efface the picture we love so well.

Green eyes is a disease that afflicts married folks and lovers mostly; it has some strange symptoms, and sometimes ends in death. When lovers have it, they do not sit and warm their feet at the same stove any more, nor eat pie off the same plate, nor drink from the same glass, nor sit on the same sofa—all things in this world wear a different look to them from what they did last week, when they were engaged and happy. When married people have green eyes, it is still worse; it makes them do the silliest of things, and the worst of it is, they are not ashamed when it is over. In my opinion, nearly all the divorce cases are caused by this disease.—*Rural World.*

SPECIAL CAR.—We do not know that it is such a very big thing to travel east in a special car. A fellow who does so is sure to get his name in the papers when he starts, and that is about all the fun he has on the whole trip. He is shut up in his exclusiveness and cannot see the other people who are going along at the same time, and more than half the pleasure found in traveling is seeing people. The special car man may have nicer cushions to ride upon, may have champagne and other delicacies, may get a little more obsequious attention from the train porters, may not have to be interviewed by the boy who sells prize candy, and he may not be in great danger of catching the itch; but still he cannot be very happy. He sits up and thinks of himself and has no fresh man, who may be a character, to come along and give him a new sensation or to suggest to him an idea which is novel and entertaining. The traveler who does not mix with all sorts of people and keep an eye on all the various characters to be met with in a journey, may travel far and see nothing. For all practical purposes such a traveler had as well be switched off on a side track and left to himself for a duly appointed time. We were reminded of this by being in Colfax the other day when an eastern-bound train stopped there, and with which there was a special car. The windows of the special car were immediately blinded and a guard stood at either door of the car to prevent an invasion. The traveler in that car did not want to see nor to be seen. Then everybody knew that some stuck-up idiot was in there, and that that idiot did not want to learn any more than he now knows, and the outside world lost nothing by that shutting up. *Exchange.*

THE SICK CHAMBER.—Health and the sun have been always sung and praised. We will now celebrate sickness and shade. We will celebrate thee, bodily sickness, when thou layest thy hand on the head and heart of man, and sayest to the sufferings of his spirit, "Enough!" Thou art called on earth an evil; ah, how often art thou a good, a healing balsam, under whose benign influence the soul rests after its hard struggles and its wild storms are still! More than once hast thou prevented suicide and preserved from madness. The terrible, the bitter words which destroy the heart are by degrees obliterated during the feverish dreams of illness; the terrors which lately seemed so near us are drawn away into the distance; we forget, God be thanked, we forget and when at last we arise with exhausted strength from the sick bed, our souls often awake as out of a long night into a new morning. So many things, during the illness of the body, conspire to soften the feelings; the still room, the mild twilight through the window curtains, the low voices, and then, more than all, the kind words of those who surround us; their attention, their solicitude, perhaps a tear in their eyes; all this does us good, does us essential good. And when the wise Solomon enumerated all the good things which have their time upon the earth, he forgot to celebrate sickness among the rest.—*Bremer's President's Daughter.*

A PRECIOUS PHILOSOPHER.—A young philosopher of seven years of age, who had not got far enough to hear the Holy Scriptures disputed by science, listened attentively in his father's parlor, the other evening, to a warm discussion on the Darwinian theory, and, after the guests had departed, somewhat surprised the paternal with: "Father, *I* don't believe Mr. Darwin is right." "What?" said the parent, looking down at his unexpected reasoner, who stood before him with a little Bible in his hand; "you do not, and why?" "Because, papa, my Bible says 'God created man in his own image,' and I don't believe it was a monkey." "Well, well," said the sire, laughing, "run along, Tommy; you are too young to talk about such things." "But, papa, almost the next verse says: 'God saw everything He made, and behold it was very good'. Now it wasn't good if men were monkeys, was it? For you are gooder than a monkey, ain't you, papa?"

Influence Immortal.

Scientists tell us that all matter is affected more or less by all matter—that is, that there is no particle or atom of matter, however small, but what is operated upon by other particles of matter. This principal is true, as well in the moral as in the material world. No act of life but what has its influences; no word but what its force is felt for good or evil; no thought expressed but what its influence makes those who hear more Christ-like or devilish.

Influence is immortal. Do we think so? This careless world acts as though it mattered not what it said or thought or did. Perhaps reflection might change that opinion. I opine that we cannot perform a *single* act but what has an eternal influence.

The searcher after illustration may find one in the shop of the smith, who wields his hammer in the shaping of the heated iron. To a spectator looking carelessly at the man of the forge, beating into shape a rude piece of iron, the blow of the hammer has lost its influence or force or effect, if you please, when it has struck the iron upon the anvil. Not so, however, to the searcher after truth. If he examine the anvil, *in it* the force or effect of those blows still remains. If you touch it it will soon inform you of the presence of heat. The anvil is hot from those blows. *The influence of those blows is heat in the anvil.*

Well, we have many anvils in the moral world to beat upon. Every blow has its force. We may feel no change while we hammer away; but God takes care of the heat we do not see or feel.

There is no such thing as neutral influence. We must act, *nolens volens*. Then care, examination, reflection, should attend every act. If down the stream we should send an influence that will bless, and that will leave behind us a good name, we should be actuated by the purest motives and be influenced ourselves by the highest incentives. Inadvertence cannot be plead as a justifiable excuse when we come to render a final account. To him who has given us the grand opportunity of life we must all give a correct statement of its use, with all its forces; and of all these influence is the mightiest. Nothing but a recognition of responsibility and faithfulness *until* death will be accept able to the great Searcher of Hearts.

A Hint to Husbands.—A few weeks ago a lady with one child dependent on her replied to an advertisement for colorers of photographs and secured the situation offered. In two weeks she became as skillful in the art as women ordinarily do in six months, and elicited the warmest praise from her employer, who paid her liberal wages for her work. The secret of her success was simply this: Her husband learned in Scotland the art of coloring designs for carpets, and made in this country a handsome living by his profession. After his marriage his wife assisted him, and learned to handle the pencil with so much skill, and to harmonize colors with such taste, that for the latter part of the three years of their married life she earned a third as much as he did. But not being mistress of the art, when he died she sewed for a support until her engagement with the photographer alluded to. Now she has prospect of plenty of work with generous remuneration. At the head of the oldest house in America in the importation and manufacture of chronometers, watches, and scientific instruments, is a woman who, from choice, went through the mechanical and mathematical training necessary to enable her to understand and share her husband's pursuits. He died leaving her in narrow circumstances with three children, obliged to exert herself in some way for their support. The hope that she might by taking her husband's place in the firm preserve the business for her son stimulated her to undertake what seemed a herculean task, but her efforts were crowned with abundant success and the house still holds its place at the head of houses of that kind in this country. Are comments necessary? Cannot every thoughtful husband draw the moral of the two narratives?—*N. Y. Tribune.*

Waste of Food Supplies.—Human intelligence does not shine in the management of such *ferœ naturœ* as minister to the wants of man. The salmon has been wasted in British rivers, the trout fished out of the Austrian streams, the seals well nigh exterminated on several banks, the African ostriches hunted to the Sahara, the lobsters on the coast of the United States canned off until they can no more, and the oysters—but their loss is too painful to dwell upon. The mischief being done, recourse is now had to legislation, pisciculture, oyster farms, and various methods by which creatnres that only asked to be allowed to live and multiply as best they might at their own expense are now reared with considerable trouble and cost. Perhaps the strangest turn of fortune is that which has in this manner befallen the rabbit. After being from time immemorial killed down as vermin, this animal has met with a triumphant rehabilitation in Germany, where several influential societies are engaged in promoting "rabbit culture," issuing periodicals on the subject, and giving rabbit dinners to demonstrate the excellence of their *protege* as an article of food. There is much to be said in favor of extending their movement, to the success of which climate offers no obstacle, to this country, where the unsatisfactory state of the meat supply demands all the auxiliary measures which ingenuity can devise to meet the need.—*English Paper.*

Young Folks' Column.

German Cradle Song.

Sleep, heart-loved baby! my darling art thou;
Close quick thy little blue eye-peeps now.
All around quiet and still as the night;
Sleep, and I'll watch till thou wakest so bright.

Angels from heaven, as lovely as thou,
Float round thy cradle and smile on thee now.
Later, 'tis true, yes, they'll hover still near,
Only to dry from thine eye the sad tear.

Just now, my lambkin, is golden the day;
Later, ah! later, 'twill not be so gay;
When sorrows at first thy cradle surround,
Then, darling baby, thou'lt not sleep so sound.

Sleep, heart-loved baby! although comes the night,
Mother will sit near thy cradle in sight;
Be it so early, or be it so late,
Mother-love, darling, still watches thy fate.

—*The Churchman.*

Letters to Boys and Girls—No. 14.

Dear Children:—I am going to write to the *little* ones, and all I ask of the older ones is that they read this letter to the "wee bits" who like letters. You cannot guess what I have been doing this beautiful June afternoon, so I will tell you. I have been running the sewing machine, making a dress; but I had the advantage of dressmakers, for I taught school at the same time. Do you remember Carl? Well, he was taken sick with the diphtheria some days ago and the doctor said that his little sister Annie must be kept away from him. She is pretty lonesome, so I told her we would play school this afternoon. She ran for her little rocking chair, set it by the machine, got her book and read, "It is an ox, I see the ox," etc. Then I read over her spelling lesson, and she studied it in loud whispers. The last word was "Sam." When she spelled it her black eyes began to shine, and she cried out "Oh! teacher 'scuse me quick! P'ease 'scuse me quick and me bring you a new scholar." Off she ran, but soon came back bringing Sambo, for you see, the word "Sam" in her lesson made her think of him. Sambo is a black boy dressed in a black jacket with red trimmings, red trousers with black stripes on the sides, black boots and red cap, all knit out of worsted yarn. He is a very fine doll, and though he had never been to school before, he spelled the whole line without winking, or at least he stood up very straight in Annie's lap, and *some one* spelled the words as fast as I prononnced them. But my little scholar had other bright ideas. After recess I heard a carriage rumbling over the carpet, and there in her nice little carriage was Miss Ida, a rosy cheeked dollie with real hair flowing down over her silk dress. Her hair does not seem to have grown in very firmly, for when Annie was combing it the other day, quite a little handful came out. Ida did not cry. She never cries when she has her hair combed, as some children do, and she does not seem to miss it. Well, Miss Ida would not have it said that a black boy could spell better than she could, so she stood up and looked straight at me with her black eyes, and every word was spelled right. But Annie thought that the school was not large enough yet. She asked to be 'smissed, (she meant dismissed,) and away she went with her carriage, soon returning with Dinah, a large black rag doll, made for her when she was a baby. Dinah is old and well stricken in years. One of her black button eyes was pulled out some time ago, and her black rag nose has been fearfully snubbed. She has been quietly slipped into the rag bag by Annie's mamma a half-a-dozen times, and as quietly slipped out again by Miss Annie, who has no idea of letting her children end their days in an insignificant rag bag or be ground up into brown paper.

But Dinah was not the last scholar, for Annie brought along a black dog, about as large as a half grown kitten, and a wooden horse with a broken leg, declaring that they could read and spell as well as Sambo and Ida; so the same words were again pronounced, and again spelled correctly. She then made a desperate effort to find Susie, a poor little doll about as long as your hand, with both hands and one foot broken off. It was no use to look for Minnie, her beautiful wax darling; for, alas! Minnie had a fall which cracked the back of her head. Annie did not feel as badly as she would if she had not been longing ever since she had the doll to look inside her head that she might see how her eyes opened and shut. When the back of her head came clear off, Annie squeezed out a few tears, but quickly began to examine her eyes, which she found were as round as an apple, and attached to a leaden weight, which fell into the top of Minnie's head when she lay down. This turned the balls over, so that they were flesh-colored on the right side, instead of blue. The school was soon closed, and the scholars—all but the oldest one—were taken home in the carriage.

Since then a large brown bear has been performing in the street in front of the house. Annie cried when she saw the same one at the beach, in York, Maine, last year, but to-day she liked to watch him, as he danced, walked, played with a cane, and kissed his keeper, all the while standing upon his hind feet, until it seemed to us that he must be very tired. Do you suppose if you play school that a performing bear will come to amuse you? J. F. J.

Good Health.

Position in Sleeping.

It is better to go to sleep on the right side, for then the stomach is very much in the position of a bottle turned upside down, and the contents are aided in passing out by gravitation. If one goes to sleep on the left side, the operation of emptying the stomach of its contents is more like drawing water from a well. After going to sleep, let the body take its own position. If you sleep on your back, especially soon after a hearty meal, the weight of the digestive organs, and that of the food, resting on the great vein of the body, near the back bone, compresses it, and arrests the flow of the blood more or less. If the arrest is partial, the sleep is disturbed, and there are unpleasant dreams. If the meal has been recent or hearty, the arrest is more decided, and the various sensations, such as falling over a precipice, or the pursuit of a wild beast, or other impending danger, and the desperate effort to get rid of it arouses us; that sends on the stagnating blood, and we wake in a fright, or trembling, or perspiration, or feeling of exhaustion, according to the degree of stagnation and the length and strength of the effort made to escape danger. But when we are not able to escape the danger, when we do fall over the precipice, when the tumbling building crushes us, what then? *That is death!* That is the death of those of whom it is said, when found lifeless in their bed in the morning: "They were as well as they ever were the day before," and often it is added, and *ate heartier than common!* This last, as a frequent cause of death to those who have gone to bed well to wake no more, we give merely as a private opinion. The possibility of its truth is enough to deter any rational man from a late and hearty meal. This we do know with certainty, that waking up in the night with painful diarrhea, or cholera, or bilious colic, ending in death in a very short time, is properly traceable to a late large meal. The truly wise will take the safer side. For persons who eat three times a day, it is amply sufficient to make the last meal of cold bread and butter and a cup of some warm drink. No one can starve on it, while a perseverance in the habit soon begets a vigorous appetite for breakfast, so promising of a day of comfort.—*Hall's Journal.*

A New Anæsthetic.

Dr. W. Preyer, of Jena, Saxony, has repeatedly found that a concentrated solution of lactate of soda in water, administrated as a hypodermic injection, or in sufficiently large quantities introduced in an empty stomach, causes a sensation of fatigue and sleepiness perfectly similar to that of a natural sleep, provided, of course, that no disturbance of the senses is applied to keep the person awake. Similar symptoms show themselves after the drinking of large quantities of fresh milk, and more so of milk which has become slightly acid, also of buttermilk either sweet or acid, and even of concentrated sugar-water. The sleep thus produced shows itself sooner among young animals than old ones; more among those which have a more excitable reflex nervous disposition than among those in which it is weaker; among rats, cats, pigeons and frogs sooner than among rabbits and marmots; it also shows itself sooner in small animals than in large ones, and sooner during cold than during warm weather.

Man is very variously affected by lactate of soda; some experience an uncontrollable somnolence after having in the morning, on an empty stomach, drank a glass of thick milk or concentrated sugar-water, or a solution of half an ounce of sugar in four ounces of water; but others will feel no effect. Dr. Preyer thinks that the effects of the lactate of soda deserve to be experimented upon as an antipyretic, as a sedative in mania and certain forms of convulsive affections, on account of the promptness with which it produces muscular relaxation. Every time he observed hypnotic effects of this salt, he found that the respiration became slower and deeper, the irritability diminished, and that, at least among cold-blooded animals, the temperature went down under the influence of strong doses, which are well supported, without ever leaving any inconvenient result. *Exchange.*

Grapes in Fever.—Dr. Hartsen, in *Centralblatt fur die Med. Wissenschaften*, recommends grapes as a valuable diet in fever. The grape contains a considerable amount of hydro-carbonaceous matter, together with a certain quantity of potassium salts, a combination which does not irritate, but on the contrary soothes the stomach, and consequently is used with advantage, even in dyspepsia. While considering the carbo-hydrates contained in the grape, we must not neglect the organic acids, particularly tartaric acid. Dr. H. thinks the nourishing influence of these acids too much neglected. It is indeed known that they are changed to carbonic acid in the blood, and are excreted as carbonates in the urine. Possibly careful research might show that, under some circumstances, the organic acids are changed to fats. Dr. H. believes that the organic acids should be ranked with the carbo-hydrates as food. When fresh grapes are not to be had, raisins or diluted wine might be used.

Domestic Economy.

The Art of Carving.

It is worth learning, worth in fact the expenditure of a good deal of time and patience in order to its thorough mastery. When an affable but modest host has two or three times succeeded in landing the hissing turkey in his neighbor's lap, and the platter and gravy in his own, he will appreciate and strive to familiarize himself practically with the following regulations, laid down by the *Rural New Yorker*. We would merely suggest that his first experience takes place in a retired part of the house, where no curious quidnuncs are present to mar the solemnity of the occasion. The writer says: It is not proper to stand in carving. The carving knife should be sharp and thin. To carve fowls (which should always be laid with the breast uppermost), place the fork in the breast, and take off the wings and legs without turning the fowl, then cut out the merry-thought, cut slices from the breast, take out the collar-bone, cut off the side pieces, and then cut the carcass in two; divide the joints in the leg of a turkey. In carving a sirloin, cut thin slices from the side next to you (it must be put on the dish with the tenderloin underneath), then turn it and cut from the tenderloin; help the guests to both kinds. In carving a leg of mutton, or ham, begin by cutting across the middle of the bone; cut a tongue across and not lengthwise, and help from the middle part. Carve a fore quarter of lamb by separating the shoulder from the ribs, and then divide the ribs. To carve a fillet of veal, begin at the top and help to the dressing with each slice. In a breast of veal, separate the breast and brisket, and then cut them up, asking which part is preferred. In carving a pig, it is customary to divide it and take off the head before it comes to the table, as to many persons the head is revolting; cut off the limbs and divide the ribs. In carving venison, make a deep incision down to the bone to let out the juices, and then turn the broad end toward you, cutting deep in thin slices. For a saddle of venison, cut from the tail toward the other end, on each side, in thin slices. Warm plates are very necessary with venison and mutton, and in winter are desirable for all meats.

Onions.—The unpleasant breath which eating this vegetable produces is perhaps the greatest objection to its use, but still it is a very wholesome and desirable article of food for many, and hence should be brought on the table in the most attractive form. White onions and those grown in the South are least odorous and pungent. Take off the outside skin, cut off both ends close, and let them stand in cold water an hour, then drop them into a saucepan with two quarts of boiling water. Cover, and boil fifteen minutes. Have a kettle of boiling water on the fire ready for use, pour off the water from the onions, and add as much more—be sure the water is boiling—and boil half an hour longer. Scald a cupful of rich milk, pour off the second water from the onions, add the milk and a little graham flour to thicken it. Salt and otherwise season to taste. Boil up a few minutes and serve the onions whole; or they may be cut in halves before cooking.

Crushed Wheat.—This preparation of wheat is not yet generally in use by those who are in favor of farinaceous food. The whole grain is "crushed" in such a manner as to retain all its particles quite together. Nothing is lost or sifted out. It is made from good white wheat, and is very clean, and well put up in packages. It cooks more readily than the cracked grain, has more gluten, and has all the sweetness and flavor of the wheat. I cook it just as I do oatmeal; having a quart or two of boiling water on the fire, stir in two handfuls of the grain—all I can grasp—for each quart of water; boil rapidly for twenty minutes, stirring frequently to prevent its adhering to the bottom of the kettle; then let it simmer over a slow fire for ten minutes, covered tightly. I like it better when cool; the gluten forms a jelly, and when moulded makes a handsome dish for the table.

Apple Puffs.—These are nice for party suppers, and, in fact, are good any time, but rather too tedious to make for frequent use. The quickest way of making them is to roll two large sheets of dough on separate boards, and put as many tiny spots of mashed or sifted sauce upon one of them as you judge there will be room to make puffs; then cover it all with the other sheet, which should be a trifle larger, and cut out with the biscuit cutter wherever there is a bunch of sauce. If too much sauce is put in, it will stew out bad and disfigure them; print around them with a three-tined fork—if you have nothing better—to press the edges together and keep in the juice. By the way, an old wooden clock wheel is quite a handy thing to roll around pies, and makes a very pretty margin; cheap, isn't it? and it is never out of order.

Gooseberry Custard.—Three pints of green gooseberries; quartor of a pound of sugar; four eggs, and two tablespoonfuls of orange-flower water. Set the gooseberries in cold water over a slow fire, and simmer till soft; then drain the water away, and rub them through a sieve, to a pint of pulp add the eggs, the sugar, and orange-flower water; set it over the fire, stirring constantly till it becomes thick, and when cold serve in custard glasses.

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No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, July 1, 1876.

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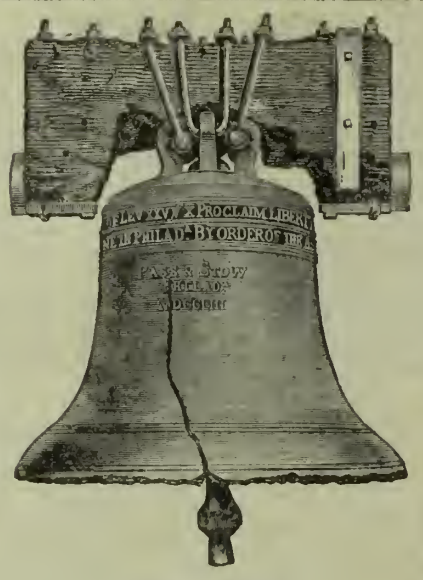
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NEW ADVERTISEMENTS.

Farming Implements, Baker & Hamilton, San Francisco and Sacramento; Excelsior Force and Lift Pumps, Holbrook, Merrill & Co., S. F.; Seeds, David Landreth & Sons, Philadelphia, Pa.; Poultry, Cattle, Etc., Geo. B. Bayley, Oakland, Cal.

"OUR HORSE."—Don't startle, gentle reader. Once upon a time we owned a real horse. Jim Kearny (agent) put him ont to pasture with a compassionate agriculturist near Lathrop. Jim lost the farmer's name and we haven't found it—nor got a clairvoyant who can point to our lost Pegasus; whereas, therefore, we offer a liberal reward of three months' subscription to the RURAL PRESS, and two elegant (postage stamp) chromos of Andrew Washington and George Jackson for a line of information leading to said horse. Whoever knows the whereabouts of said horse, speak now or forever hold your tongue.

VISITORS to San Francisco can spend a considerable time profitably any day in examining the wonderful and interesting things to be seen at Woodward's Gardens. There will be a grand display of fireworks here on the Fourth.



Centennial Bells.

Ye belfry'd blacksmiths in the air,
Smite your sweet anvils good and strong!
Ye lions in your lofty lair,
Roar out from tower to tower, along
The wrinkled coasts and scalloped seas,
Till winter meets the orange breeze
From bridal lands that always wear
The orange blossoms round their hair.
Centennial Bells, ring on!

Pour out, ye goblets, far and near,
Your grand melodious iron flood,
Till pine and palm shall think they hear
The axes smite the stately wood,
Nor dream the measured cadence meant
The clock-tick of the continent!
The footfall of a world that nears
The field-day of a hundred years.
Centennial Bells, ring on!

Ye blossoms of the furnace fires,
Ye iron tulips rock and swing,
The People's Primal Age expires,
A hundred years the reigning king.
Strike one, ye hammers overhead,
Ye rusty tongues, ring off the red,
Ring up the Concord Minute Men,
Ring out old Putman's wolf again.
Centennial Bells, ring on!

Where prairies hold their flowery breath
Like statues in the marble ledge,
Where mountains set their glittering teeth
Through wide horizon's rugged edge,
And hold the world with granite grip
As steady as a marble lip.
And here, and there and everywhere,
With rhythmic thunder strike the air.
Centennial Bells, ring on!

Ring down the curtain on To-day
And give the Past the right of way,
Till fields of battle red with rust,
Shine through the ashes and the dust
Across the Age, and burn as plain
As glowing Mars through window pane.
How grandly loom like grenadiers
These heroes with their hundred years!
Centennial Bells, ring on!

Ring for the blue-eyed errand boy
That quavered up the belfry staff,
"They've signed it! Signed it!" and the joy
Rolled forth as rolls the Delaware.
The old man started from a dream,
His white hair blew, a silvery stream,
Above his head the bell hung wung
Dumb as a morning-glory hung;
The time had come as long it long,
His wrinkled hand grew young and strong,
He grasped the rope as men that drown
Clutch at the life-line drifting down.
The iron dome as wildly flung
As if Alaska's winds had rung.

Strange that the founder never knew,
When from the molten glow he drew
That bell, he hid within its rim
An anthem and a birthday hymn.

So rashly rung, so madly tossed,
Its old melodious volume lost,
Its thrilled horizon rent and cleft,
Of sweet vibration all bereft,
And yet, to hear that tocsin break
The silence of a hundred years,
Its rude discordant murmurs shake
And rally out the soul in cheers
Would set me longing to be rid
Of sweeter voices, and to bid
Centennial Bells be dumb!

Although no mighty Muscovite,
No iron welkin rudely hurled,
That bell of Liberty and Right
Was heard around the Babel world!
Land of the green and golden robe!
A three-hours' journey for the sun,
Two oceans kiss thee round the globe,
Up the steep world thy rivers run
From geologic ice to June.
A hundred years from night to noon!
In blossom still, like Aaron's rod?
The clocks are on the stroke of one,
One land, one tongue, one Flag, one God!
Centennial Bells, ring on!

—*Scribner's Monthly.*

IMMENSE CROPS.—It seems to us that the wheat crop this year will be one of exceeding magnitude. There has never before been a season so largely favorable for an abundant supply of grain for transportation. If the fleet of wheat-carrying vessels to arrive during the coming eight months is sufficient for the demands of our wheat shippers, it will prove a remarkable fact and be a subject for congratulation.

THE OLD LIBERTY BELL.—The outline of the old Liberty bell which we print elsewhere is formed of the type known to printers as brilliant. It is the smallest type made. The words of the Declaration comprise 4,042 solid ems, equal to three and one-half 12mo pages of solid bourgeois. The Declaration is all in the bell, word for word, but Old Continentals may require clear spectacles to read it.

Our New Volume.

We print this week the first issue of Vol. XII of the PACIFIC RURAL PRESS. We give our readers eight additional pages and we stamp upon the issue characteristics pertinent to the time. We trust our efforts will aid many to bring more vividly to mind the spirit of the past, the greatness of the present and the glorious possibilities of the future of our beloved land.

The RURAL PRESS is in full accord with the Centennial spirit. The air is rife with the notes of progress and improvement. We are resolved to keep abreast of the times and make our journal so bright and true that it will catch and reflect every ray of true light which this spirited age evolves.

We are sending forth a paper devoted to the highest interests of the noblest class of our population. If the people we are proud to represent had the power in the land which is their right, they would sweep from the eyes of the world the corruption which has humbled us as a nation. They would have seen to it that our people did not bear the increased burden which the age of peculation has brought upon us. They would have saved the country from the evil deeds in high places which have increased their labors and lessened their rewards.

Toward securing the beneficent blessings of true and honest life and action we are devoted. We shall thus continue to labor. We aim to elevate and uplift all who are joined in the noble guild of agriculture. As all thrive we would thrive also. In taking pride in furnishing a first class journal we are giving our readers that which is better than gold, because we aim to up-build the man at the same time that we point out for all the elements which result in better work and larger successes. We aim to increase present comfort and reward, and lay the foundation for truer manhood and womanhood in our children.

As we begin a new volume we trust all our readers will go with us. We would lose none because the measure of our support must of necessity be the measure of our ability to serve our readers. It requires more outlay to conduct a journal upon the plan which guides the RURAL PRESS, than if our rules as to quality of matter, in reading and advertising columns, were looser and more careless. We desire the aid and co-operation of all to enable us to maintain the high standard of our paper. We trust that no one will decide to economize by cutting off an agency which enables him to do better work, and which, by bringing to his eye the best attainable information, constantly gives him hints for new successes.

Our State enjoys a year of unrivaled prosperity, while elsewhere there is depression and discouragement. In this era of abundance the RURAL PRESS desires its share to strengthen its hands for future labors. Give us your hearty support, kind readers, that the PRESS may not be a drone among the workers, but may be strong and active to lead the way to where new stores of honey lie.

The Celebration in this City.

We print on another page an illustrated account of the main features of the celebration of the Fourth in this city. The chief credit for planning and carrying forward the plan to execution is due to General James Coey, President of the Day. He has labored zealously in the cause, and his efforts will be long remembered as closely allied with the success of the occasion. The other officers of the day are Hon. D. A. MacDonald, Grand Marshal; Col. J. D. Stevenson and Col. Peter Donahue, Vice-Presidents, and Frank J. Murphy, Secretary. The several committees are entrusted with important trusts.

The names of those participating in the pavilion exercises are: Chaplain, Rev. W. H. Platt; Reader, J. E. McElrath; Orator, Rev. Horatio Stebbins; Poet, James F. Bowman. The exercises will be interspersed with music and singing.

The Invitation Committee, presided over by Pay Director Cunningham, U. S. N., met on Monday at the Palace hotel. Invitations were sent as follows: Governor, Cabinet and staff, Mayor, Supervisors and School Directors, ex-Governors, ex-Grand Marshals, Foreign Consuls, Army and Navy officers, Federal and State Judiciary, Federal officers, Mechanics' Institute, United States Senators and Representatives from this State, holdover State Senators from this city, President Grant and Cabinet, General Sherman, General McDowell.

THE FOURTH IN SACRAMENTO.—Following is a synopsis of the proposed celebration at Sacramento on the Fourth: Fireworks to the extent of $1,000 to be displayed at State Capitol park; the celebration to extend through three days—third, fourth and fifth; the citizens are requested to illuminate on the evening of July third; fire bells to be rung at sunrise, noon and sunset on the Fourth, church bells invited to join in the chorus; Sacramento association of California Pioneers and improved order of Red Men, together with the railroad shops fire department, will take part in the exercises. It is expected that the procession will move at 9:30 A. M., on the Fourth, and the burlesque procession at 4 P. M.

The Centennial Fourth.

The greatest day of all this greatest year is at hand. Before another RURAL PRESS shall have passed from us to you, kind readers, the Centennial Fourth will have been hailed with rejoicing and celebration such as no day has known since the first century of the republic began. While we are now lingering on the verge of this peerless national rejoicing, let us instance a few thoughts which it is fitting to remember.

What have we done in a hundred years? In the first place we have shown to the world the possibility of a popular government. A people has proved its right and ability to govern itself. We have triumphed over dissensions which would have wrecked most other governments, or else have placed one-half their people in bondage. We have triumphed in such a way that there is neither victor nor vanquished, and our whole people are free, equal and fraternal to-day, as in the early happy days. Where in the history of the world has there been such a victory; where has war been so completely conquered?

Think for a moment of our national growth. One hundred years ago two and one-half millions of people rejoiced over the adoption of the Declaration of Independence; to-day, more than forty millions rejoice with full hearts and loud voice and declare again and again the brave words of the fathers of the republic. Then there were 13 weak but hopeful colonies; now there are 37 strong and united States. Then the popular domain hugged the Atlantic shore, now it extends from ocean to ocean, and the Pacific will sound a loud refrain to the rejoicings along the Eastern coast.

Nor has the growth of the country been in numbers alone. There has been a material prosperity keeping pace with the increase of population. The seed of liberty was planted on fruitful soil. The temple of freedom and equal rights was erected in a land so rich in varied resources that its votaries were not nourished upon an idea alone, but were led by their own industry into the enjoyment of unequaled prosperity. The freedom to act, coupled with the material to act upon, has won for us men from every clime, and the good land holds a good people. It is history as well as poetry which says to our country:

"There's freedom at thy gates, and rest
For earth's down-trodden and oppressed,
A shelter for the hunted head,
For the starved laborer toil and bread."

The century which ranks first in our national history has no peer in the general advancement of mankind. No century has witnessed such grand industrial achievements. In no century have bright thoughts turned so many powers and forces of nature to the service of mankind. Never before has mechanism lifted so great a weight from the burden of muscle. What a tide of progress is called to mind by the mention of the single word—steam. During the century its greatest deeds have all been accomplished. The locomotive snorting upon mountain tops; the steamship cutting the waves and wind; the powerful stationary engine, locking in a narrow cylinder the force of thousands of horses; all these are within the circle of the century. By the power of steam, miles have come to be counted in minutes; but this is only a trifling with time. The speed of intelligence waits not for such tardy carriage. Over the mountains, across the plains, mounting the hills and threading the valleys of the East, plunging into the Atlantic, springing thence beyond the water, flying across the many kingdoms of Europe and laughing at the width of Asia, a thought from the Pacific coast rings in the ears of the listener in China, almost before the lagging pencil can mark ont its course. This is an every-day occurrence. We think no more of it than we do of the flash of a ray of sunlight, and yet it is wonderful beyond history, wonderful beyond even the imaginings of the fathers of the century. With such results accomplished through American invention and discovery, what less than prophecy do these words of Timothy Dwight, written at the beginning of the century, become:

"Fair science her gates to thy sons shall unbar,
And the East see thy morn hide the beams of her star;
New hards and new sages unrivaled shall soar,
To fame unextinguished when time is no more."

To write the achievements of the first 100 years of the republic is really to write its history, for each period has some new and striking thought or deed. Thus has arrived the wonderful advancement of the country and the people. Progress has been continuous. The achievements of the past will serve to guide and impel the hand which will accomplish the deeds of progress which still lie before.

If it afford satisfaction to review our material progress, not less can be gained from the contemplation of our advancement in that which ministers to mental and moral growth. Witness our schoolhouses springing up every where close upon the heels of the pioneer; witness our higher schools and universities; witness our vigorous youth in literature. No longer can the sneering foreigner ask "who reads an American book?" for American books are covered with gold in Europe, and American authors are crowned with titulary honors by the ancient universities of the old world. Intelligence presses home upon the dweller in this country upon the face of 5,000 newspapers; the refining and elevating influence of morality and

(Continued on Page 17.)

The Yellowstone Geysers.

There is probably no region in the world where there is such a variety of peculiar and wonderful scenery as in the Yellowstone country. It has as yet been visited by but few, and the only extended accounts of it which have been published are those furnished by the members of the U. S. geological survey, under Prof. F. V. Hayden. They have pretty thoroughly explored the region and given us many details concerning it. It may be taken as a very good indication of the wonders of this natural scenery that the scientific, matter-of-fact geologists and naturalists have described it at such length and praised it so highly. Fortunately for the people of the United States this extensive region has been set aside as a great National Park, where the land belongs to the people as a whole and no individual rights can interfere with the liberty of the tourist. Of course it will be some time before the railroad will render the Yellowstone country easily accessible, but we can rest with a consciousness that its wonders are not all perishable, and that at some day we will be able to visit and examine the most curious tract of country in the world.

The large engraving accompanying this will give some idea of one of the special features of the Yellowstone, viz., the hot springs. The engravings were made for the *Christian Weekly* from photographs taken by Mr. Jackson, of the geological survey, and afterwards published in the report.

The entire Yellowstone basin is covered more or less with dead and dying springs, but there are centers or groups where the activity is greatest at the present time. On the south side of Mt. Washburn there is quite a remarkable group of active springs. The number of frying or simmering springs is great. Many of the dead springs are mere basins, with a thick deposit of iron on the sides, lining the channel of the water that flows from them. The steam vents are very numerous and the chimneys are lined with sulphur. Many of the springs seem to remain full to the rim of the crater, and are in a continual state of ebullition, and yet no water flows from them. Throughout this whole tract of country are hundreds and hundreds of geysers and hot springs of all characters and varieties. Some of them are in violent though intermittent action, while others are in a partially quiescent state. There are some that might be called spasmodic springs. The springs appear to operate perfectly independent of each other. Professor Hayden says he does not know that there is a connection between any of the springs in the whole basin, though there may be in some rare cases.

The "Hot Spring Cone" shown in the engraving they called the "Fish Pot," from the fact that it extended out into the lake several feet, so that one could stand on the silicious mound and hook the trout from the cold waters of the lake, and without moving boil them in the steaming hot water of the spring. There seemed to be no connection between the orifice of the hot spring and the cold water [illegible]nd. In the upper right hand corner is the Castle Geyser and the most beautiful spring in the upper geyser basin of the Madison. The Grotto and Giant Geysers are first-class spouters, throwing a column of water up from 100 to 200 feet, and continuing the operation from one to two hours. The "Boiling Spring" at Sulphur mountain is in the valley of the Yellowstone, at the locality known as "Seven Hills." The open portion of this is about 15 feet in diameter. The ornamentation about it is beautiful in the extreme. At the lower right hand corner is a small sketch of the calcareous springs on Gardner's river, with the enormous terraces and bathing pools, which vary in temperature so the bather can find any degree he desires.



Scenes in the Great National Park of the Yellowstone.

The Marysville *Appeal* is the authority for the statement that Hank Small has been presented with $1,000 by the Utica locomotive company, which built engine No. 149, on which Hank sped from Ogden to San Francisco.

The Fourth in Philadelphia.

A dispatch from Philadelphia furnishes interesting information of the way the nation's birthday will be celebrated in the "Cradle of Liberty." The ceremonies will take place at Independence hall, beginning at an early hour with a review of the military from in front of the hall on Chestnut street. A stand. capable of acoommodating 100 to 150 persons, is being erected for the purpose. The literary exercises, under the auspices of the United States Centennial Commission, will take place in the square immediately in the rear of Independence hall, where a platform of sufficient capacity to accommodate some 4,500 persons, among whom will be the guests of the city, musicians, etc., will be provided. The exercises will commence immediately after the termination of the military review, at about 10 o'clock, and will be initiated by the Right Rev. Bishop Simpson, the ecclesiastic successor of the chaplain of the Continental congress.

Overture, "The Great Republic," by George T. Bristow, of New York, member of the jury on Musical Awards.

Chorus.

Reading of the Declaration of Independence from the original document by Richard Henry Lee, of Virginia, grandson of the mover of the Declaration.

Hymn of welcome, by Oliver Wendell Holmes, written to the music of Keller's hymn—orchestra and chorus.

National ode by Bayard Taylor.

Greeting from Brazil—a hymn composed at the request of his Majesty, Dom Pedro, Emperor of Brazil, by the distinguished Brazilian, Carlos Gomez, and dedicated to the American people.

Oration by William M Evarts.

Hallelujah—Orchestra and chorus.

Doxology—"Old Hundred."

Gilmore will be given charge of the orchestra, with Carl Zentz as chorus master.

The period to be oovered by the programme is estimated not to exceed three hours. Invitations to witness the demonstrations of the evening of the 3d, and to participate in the observances of the 4th, have been sent by General Hawley to Governors of all the States and Territories of the Union, and from several, assurances of their intention to be present have been received.

The First Declaration.

Before the document known as the Declaration of Independence was adopted, the Continental Congress, in the earlier months of 1776, had for many days been steadily drifting on toward the distinct assertion of separate sovereignty, and had declared it irreconcilable with reason and a good conscience for the colonists to take the oaths required for the support of the Government under the crown of Great Britain. But it was not till the 7th of June that Richard Henry Lee, of Virginia, rose and read these resolutions:

"That these United Colonies are, and of right ought to be, free and independent States; that they are absolved from all allegiance to the British crown, and that all political connection between them and the State of Great Britain is and ought to be, totally dissolved.

"That it is expedient forthwith to take the most effectual measures for forming foreign alliances.

"That a plan of confederation be prepared and transmitted to the respective colonies for their consideration and approbation."

These resolutions were presented under direct instructions from the Virginia Assembly, the delegates from that colony selecting Mr. Lee as their spokesman. They were at once seconded, probably after previous understanding, by John Adams, of Massachusetts, Virginia and Massachusetts being then the leading colonies. It was a bold act, for it was still doubtful whether anything better than a degrading death would await these leaders, if unsuccessful. These resolutions were debated from time to time until the second day of July, when they were adopted by the vote of 12 colonies. New York, though not voting, ratified the vote by a convention within a week. The Declaration of Independence was then written.

VENTURA COUNTY.—Mr. McArthur writes to us that he mailed some time since a manuscript of notes taken during his tour through Ventura county. They never reached us. We hope Mr. McArthur will reproduce them for us.

Jefferson's Marriage.

The affair was quite a little comedy in some aspects, and ended as all comedies should, with everybody made happy. "Belinda" had been married many years, and her old admirer was approaching 30, when he met with a young lady of 22 who produced a strong impression upon him. She was a little above the medium hight, slender, but elegantly formed. A fair complexion, with a delicate tint of the rose, large hazel eyes, full of life and feeling, and luxuriant hair of a rich soft auburn, formed a combination of attractions which was eminently calculated to move the heart of a youthful bachelor. In addition to all this, the lady was admirably graceful: she rode, danced, and moved with elegant ease, and sang and played on the harpsichord very sweetly. Add still to these accomplishments the possession of excellent good sense, very considerable cultivation, a warm heart, and a considerable fortune, and it will not be difficult to understand how the youthful Mr. Jefferson came to visit very frequently at the lady's residence, in the county of Charles City. It was called "The Forest," and the name of the lady was Mrs. Martha Skelton. She was a daughter of John Wayles, an eminent lawyer, and had married in her 17th year, Mr. Bathurst Skelton, who, dying in 1768, left his young wife a widow at 19. As the three years of mourning began to expire, the beautiful young lady found herself besieged at "The Forest" by numerous visitors. Of these, three were favorites with the fair Mrs. Skelton, of whom Mr. Thomas Jefferson was one. The tradition runs that the pretensions of the rivals were decided either by the musical accomplishments of the young counselor or by the fears of his opponents. The tale is differently related. One version is that the two unfortunate gentleman encountered each other on Mrs. Skelton's door-step, but hearing Jefferson's violin and voice accompanying the lady in a pathetic song, gave up the contest thenceforth, and retired without entering, convinced that the affair was beyond their control.

The other story is that all three met at the door and agreed that they would take their turns. Jefferson entered first, and the tones of the lady in singing with her companion deprived the listeners of all hope. However this may be, it is certain that the beautiful widow consented to become Mrs. Jefferson, and on the first day of January, 1772, there was a great festival at "The Forest." Friends and kindred assembled from far and near; there was frolicking and dancing after the abundant old fashion; and we find from the bridegroom's note-book that the servants and fiddlers received fees from his especial pocket. It snowed without, but within all was mirth and enjoyment, in the light and warmth of the great log fires roaring in honor of the occasion. Soon after the performance of the ceremony, the bridegroom and his bride set ont in their carriage for "Monticello," where Jefferson had commenced building in 1769, just before the destruction by fire of his patrimonial house of "Shadwell." The journey was not to end without adventures.



"LET MUSIC SWELL THE BREEZE"

As they advanced toward the mountains the snow increased in depth, and finally they were compelled to leave the carriage and proceed upon their way on horseback. Stopping to rest at "Blenheim," the seat of Colonel Carter, where they found, however, no one but an overseer, they left it at sunset, resolutely bent upon reaching Monticello that night. It was eight miles distant, and the road, which was rather a mountain bridle-path than an honest highway, was encumbered with snow three feet deep.

We may fancy the sensations of the newly wedded bride at the chill appearance of the desolate landscape as she passed along through the snow; but she was a woman of courage and good sense, and did not care for inconvenience. It was late when they arrived, and a cheerless reception awaited them—or rather there was no reception at all. The fires were all out, the servants had gone to bed, and the place was as dark and silent as a grave. Conducting his wife to the little pavilion which was the only part of the house habitable at the time, Jefferson proceeded to kindle a fire and do the honors. On a shelf behind some books part of a bottle of wine was discovered; and this formed the supper of the bridegroom and the bride. Far from being annoyed or discomforted by their reception, however, it only served for a topic of jest and laughter. The young lady was as light-hearted as a bird, and sent her clear voice ringing through the dreary little pavilion as gayly as she had ever done in the cheerful drawing-room of "The Forest;" and thus the long hours of the winter night fled away like minutes, winged with laughter, merriment, and song.—*Harper's Magazine for July.*



POSSIBLE EFFECT OF THE CINCINNATI CONVENTION.

The Constitution confers upon Congress the sovereign power over the Territories of the United States for their Government, and the exercise of this power. It is the right and duty of Congress to prohibit and extirpate in the Territories that relic of barbarism, polygamy, and we demand such legislation as shall secure this end and the supremacy of American institutions in all the Territories.—*Cincinnati Platform, June 15th, 1876.*

Franklin in Philadelphia.

The advent of Franklin into the city on the day when, a shabby lad of 17, he walked up High street munching his roll, really marks the date of the birth of the intellectual life of Philadelphia. There is not an effort for her improvement, mental or practical, which cannot be traced to its origin in the teeming brain of the energetic printer. Schools, universities, free churches, public libraries, drainage, fire and military companies, street lamps and street sweepings—every reform, from the broad policy of the statesman to the smallest detail—bears somewhere the bold scrawl, Franklin *fecit*. The wisdom and scholarship of that day were wholly drawn fron books. Franklin dealt directly with the great natural forces, physical and human; out of the unlikely material ot his fellow-apprentices he made the philosophic junto; with the petty politics of the drowsy town, he studied statecraft; a kite and key under his keen eyes told the secret of the lightnings, which secret had been kept for ages. Nothing was too insignificant for the life-giving glance of those keen eyes. He sees a seed adhering to the straws on his wife's besom, plants, tends it, and gives to the country the before unknown broom corn and a new source of industry. He observes a green twig on a basket lying on the wharf, thrown from an Amsterdam brig, plants and tends that, and presently Pollard willows grow wild by every stream. He is the foremost typical American in our history; moral rather than religious; a domestic man; faithful to his wife, yet cultivating platonic friendship with other women; never losing his self control, yet with a keen, fine sense of fun; testing, one minute, a high metaphysical problem, and, the next, a counterfeit dollar; always master of the present moment whether it demanded the making of cases, roller and ink, which he had no money to buy, or the construction of a new government from the ruins of the old.—*June Scribner's.*

THE NEW BELL FOR INDEPENDENCE HALL.—The new bell for the Pennsylvania State House weighs 13,700 pounds, and is seven feet high and 23½ feet in circumference around the lip; the clapper weighs 300 pounds and the hammer more than 200 pounds. Its material is a mixture of 80 per cent. copper and 20 per cent. tin; cannon captured from the British at Saratoga, in the Revolutionary war, and bronze guns disabled at Gettysburg are represented in this monster bell. The old bell weighed only 6,400 pounds. For weeks workmen have been strengthening the belfry with stout timbers, and experts say that it will safely stand the new weight. The bell was presented to the city by Henry Seybert, who also put in a new clock, with dials nine feet in diameter, at a total cost of $20,000. The bell bears the modest inscription: "Presented to the city of Philadelphia, July 4th, 1876, for the belfry of Independence hall, by a citizen." Around the lip is the motto, "Proclaim liberty throughout all the land unto all the inhabitants thereof," and at the top, "Glory to God in the highest, and on earth peace, good will toward men." The bell will not be rung until noon on the Fourth of July, when there will be 13 strokes, one for each of the original States. The largest bell ever cast in America was the alarm bell in the city hall in New York, weighing 23,000 pounds.

AVERILL CHEMICAL PAINT.—One of the proprietors of this journal rejoices in having used this paint over the entire outside of his humble mansion. He has also applied it inside of the same with equal satisfaction. We have no hesitation in saying we believe it to be not only a most exceedingly convenient, but excellent article as manufactured by the California Chemical Paint Co, No. 117 Pine street, S. F.

The Judges at the Centennial.

We print below a list of the judges who will award the premiums in the several departments of the exhibition. The method of awards adopted by the American Centennial Commission differs from the systems in use at other exhibitions. It dispenses with the international jury, and substitutes a body of judges, one-half foreign, chosen individually for their high qualifications. It dispenses also with the system of awards by gradnated medals, and requires of the judges written reports on the inherent and comparative merits of each product thought worthy of an award, setting forth the properties and qualities, presenting the considerations forming the grounds of the award, and avouching each report by the signature of its anthor. The professional judgment and moral responsibility of the judges being thus involved, assures the integrity of their reports. To exhibitors such reports will be more valuable than medals. The list of the American judges is as follows:

GROUP I. Minerals, Mining and Metallurgy. A. L. Holley of New York, T. S. Hunt of Massachusetts, E. Harrison of St. Louis, S. J. Reeves of Pennsylvania, S. B. Axtell of New Mexico, J. W. Mackey of Nevada, Matthew Addy of Ohio, J. D. Hague of California, W. S. Keyes of Nevada, Fred Prime, Jr.

GROUP II. Pottery, Glass, Artificial Stone, etc.—Gen. Q. A. Gilmore, U. S. A., Arthur Beckwith of New York, E. T. Cox of Indiana, Hector Tyndale of Pennsylvania, C. M. Chaffiet of South Carolina.

GROUP III. Chemistry and Pharmacy, including the Apparatus.—C. A. Joy of New York, F. A. Genth of Pennsylvania, J. Lawrence Smith of Kentucky, C. F. Chandler of Pennsylvania.

GROUP IV. Animal and Vegetable Products, and the Machinery for their Preparation.—E. N. Horsford of Massachusetts, L. B. Arnold of New York, Col. J. F. Tobias of Pennsylvania, Col. John Bradford of Florida, Gen H. M. Naglee of California, Geirdo Marks of Ohio, Ryland T. Brown of Indiana, Walter J. Green of Wisconsin, Decatur H. Miller, of Maryland, James M. Shaffer of Iowa.

GROUP V. Fish and Fish Products, Apparatus of Fishing, etc.—Seth Green of New York, S. F. Baird of Washington.

GROUP VI. Timber, Worked Lumber, Parts of Buildings, Forestry.—Wm. H. Brewer of Connecticut, J. M. Bennet of West Virginia, Prof. J. S. Newberry of New York.

GROUP VII. Furniture, Upholstery, Woodenware, Baskets, etc.—Addison Boyden of Massachnsetts, Chauncey Wiltse of Nebraska, Gen. Gibbon of Montana.

GROUP VIII. Cotton, Linen and other Fabrics, including the Materials and Machinery.—Ed. Atkinson of Boston, Hugh Wardell of Savannah, Ga.; Col. Ed. Richardson of Jackson, Miss.; Samuel Wahler of New Hampshire, A. D. Lockwood of Rhode Island, Charles H. Wolfe of Ohio, George O. Baker of Alabama.

GROUP IX. Wool and Silk Fabrics, including Materials and Machinery.—John L. Hayes of Massachusetts, E. C. Cowdin of New York, ——Boutillier and C. J. Ellis of Pennsylvania, J. Lang of Maine, Barton H. Jenks of Pennsylvania, H. C. Goodspeed of Utah, Judge Williams of Iowa.

GROUP X. Clothing, Furs, India Rubber Goods, Ornaments and Fancy Articles.—W. H. Chandler of Pennsylvania, Benjamin Britton of New York, W. A. Linthicum of New York, Prof. W. C. Kerr of North Carolina, Dr. George W. Houston of Colorado.

GROUP XI. Jewelry, Watches, Silverware, Bronzes, etc. M. L Kennard, Peter Gottlesben of California.

GROUP XII. Leather and Manufactures of Leather.—Ex-Gov. F. H. Pierpont of West Virginia, John Cummins of Massachusetts, Thomas Miles of Pennsylvania, W. B. Haseltou of St. Louis.

GROUP XIII. Paper Industry, Stationery, Printing and Book Binding.—James M. Wilcox of Pennsylvania, Charles O. Chapin of Massachnsetts, William Faxon of Connecticnt, W. W. Conly of Ohio, H. F. Brion of Maryland.

GROUP XIV. Anparatus of Heating, Lighting, Ventilation, Water Supplies and Drainage.—C. C. Cox of Washington, Dr. Azel Ames of Maseachusetts.

GROUP XV. Builders' Hardware, Edge Tools, Cutlery, etc.—Daniel Steinmetz of Pennsylvania, Charles Staples of Maine, George L. Bead of Pennsylvania, Gen. Imboden of Virginia.

GROUP XVI. Military and Sporting Arms, Weapons, Apparatus of Hunting, Explosives, etc.—S. C. Lyfort, U. S. A.; H. Abbott, U. S. A.; George A. Hamilton of Minnesota.

GROUP XVII. Carriages, Vehicles, and Accessories.—Thomas Goddard of Boston, B. F. More of Maine, B. C. Shaw of Indiana.

GROUP XVIII. Railway Plans, Rolling Stock and Apparatus, Road Engines, etc.—R. E. Ricker of New Jersey, Gen. Morris of Indiana, Pelican Statalafer of Pennsylvania.

GROUP XIX. Vessels and apparatus of transportation.—Isaac Newton of New York, J. W. Griffiths of New Hampshire.

GROUP XX. Motors, Hydraulic and Pneumatic Apparatus, etc.—Charles F. Porter of New Jersey, Joseph Belknap of New York, J. F. Holloway of Ohio, James Moore of Pennsylvania, Horatio Allen of New Jersey.

GROUP XXI. Machine Tools, Wood, Metal and Stone.—Irving M. Scott of California, G. H. Bielock of Massachusetts, W. F. Durfee of Wisconsin, J. A. Anderson of Kentucky.

GROUP XXII. Machines, Apparatus and Implements Used in Sewing and Making Clothing, Lace, Ornamental Objects, Pins, etc. —George W. Gregory of Massachusetts, E. H. Knight of Washington, L. D. T. Poor of Dakota.

GROUP XXIII. Agricultural Implements, and Implements of Horticulture and Gardening.—John P. Reynolds of Illinois. S. L. Grinnell of Washington, George E. Waring of Rhode Island, James Bince of Oregon.

GROUP XXIV. Instruments and Apparatus of Hygiene, Medicine, Surgery, Prosthesis, etc.—Dr. C. B. White of New Orleans, J. Henry Thompson of Washington.

GROUP XXV. Instruments of Precision, Research, Experiment and Illustration, including Telegraphy and Music.—Prof. F. A. P. Barnard of New York, J. E. Hilgard of U. S. Coast Survey, H. K. Oliver of Massachusetts, George F. Bristow of New York, Prof. Watson of Michigan.

GROUP XXVI. Architecture and Engineering. —James B. Eads of St. Louis, Gen. W. B. Franklin of Connecticut, Richard M. Hunt of Rhode Island.

GROUP XXVII. Plastic and Graphic Art, Sculpture.—C. C. Perkins of Boston, J. Taylor Johnston of New York. James L Cleghorn of Philadelphia, Bruno Mayer of Maryland, D. G Mitchel of Connecticut, G. W. Nichols of Ohio, J. W. Draper, Jr., of New York.

GROUP XXVIII. Education and Science.—Andrew D. White of New York, Daniel C. Gilman of Maryland, J. M. Gregory of Illinois, J. W. Hoyt of Wisconsin.

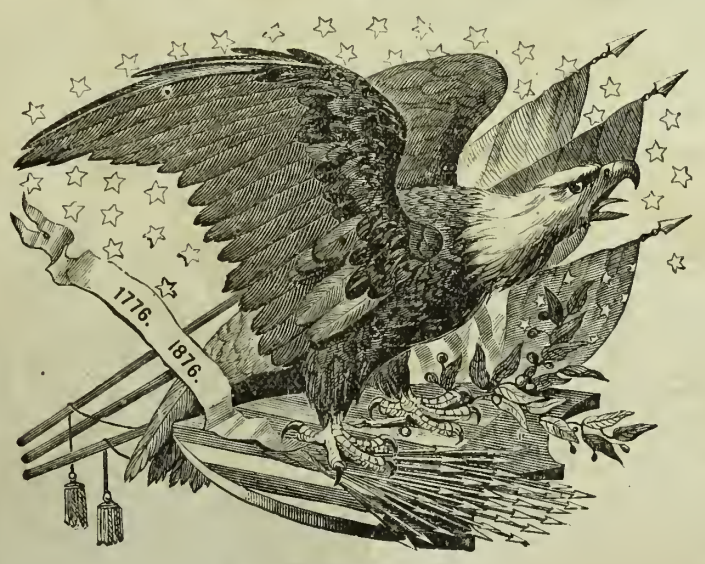
Among the English judges are Sir John Hawkshaw, John Coleman, Prof. Odling, Dr. Forbes Watson and Sir Charles Reed, M. P.; and among the French judges is the Marquis de Rochambeau, grandson of the count of Revolutionary fame. The judges from other foreign countries are not yet elected, or at least the lists have not yet been sent in. There are to be 125 American judges in all, and 100 foreign judges. Foreigners will be paid $1,000 for their services, and the Americans $600.

OFF FOR PHILADELPHIA.—The Centennial base ball club of this city left here on Saturday for the East on a three months' tour. The players chosen to represent California are Messrs. Taylor, Gill, Keating, Curran, Williams, Parent, Thompson, Piercy and O'Brien, with Messrs. Cullen, Ashley and Walker as substitutes. The club has been presented with a magnificent gold badge, to be given to the player making the best record. On July 4th they will play at Omaha. The first game with professionals will be at Chicago with the noted White Stockings.



WHEN, IN the course of human events, it becomes necessary for one people to dissolve the political bands which have connected another and to assume among the powers of the earth the separate and equal station to which the laws of nature and of nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.—We hold these truths to be self-evident, that all men are created equal; that they are endowed by their Creator with certain unalienable rights; that among these are life, liberty, and THE PURSUIT OF HAPPINESS.—THAT TO SECURE THESE RIGHTS, GOVERNMENTS are instituted among men, deriving their just powers from the consent OF THE GOVERNED.—THAT WHENEVER ANY FORM OF GOVERNMENT BECOMES PROCLAIM LIBERTY THROUGHOUT ALL THE LAND TO ALL DESTRUCTIVE OF THESE ENDS, IT IS THE RIGHT OF THE PEOPLE TO ALTER OR to abolish it, and to institute a new Government, laying its foundation on such principles, and organizing its powers in such form, as to them shall seem most likely to effect their SAFETY AND HAPPINESS.—PRUDENCE, INDEED, WILL DICTATE THAT GOVERNments long established, should not be changed for light and transient CAUSES; AND, ACCORDINGLY, ALL EXPERIENCE HATH SHOWN, THAT MANKIND ARE BY ORDER OF THE ASSEMBLY OF THE PROVINCE OF PENNS MORE DISPOSED TO SUFFER, WHILE EVILS ARE SUFFERABLE, THAN TO RIGHT THEMselves by abolishing the forms to which they are accustomed. But, when a long train of abuses and usurpations, pursuing invariably the same object, evinces a design to reduce them under absolute despotism, it is their right, it is their duty, to throw off such Government, and to provide new guards for their future security.—Such has been the patient sufferance of these colonies and such is now the necessity which con PHILADA strains them to alter their former systems of Government. The history of the pre sent king of Great Britain is a history of repeated injuries and usurpations, all hav ing in direct object, the establishment of an absolute tyranny over these States. To pro MDCCLIII ve this, let facts be submitted to a candid world.—He has refused his assent to laws the most wholesome and necessary for the public good.—He has forbidden his Governors to pass laws of immediate and pressing importance, unless suspended in their operation till his assent should be obtained; and, when so suspended, he has utterly neglected to attend to them.—He has refused to pass other laws for the accommodation of large districts of people, unless those people would relinquish the right of Representation in the Legislature; a right inestimable to them, and formidable to tyrants only.—He has called together legislative bodies at places unusual, uncomfortable, and distant from the depository of their public records, for the sole purpose of fatiguing them into compliance with his measures.—He has dissolved Representative Houses repeatedly, for opposing, with manly firmness, his invasions on the rights of the people.—He has refused for a long time after such dissolutions, to cause others to be elected whereby the legislative powers, incapable of annihilation, have returned to the people at large for their exercise; the state remaining in the meantime exposed to all the danger of invasion from without, and convulsions within.—He has endeavored to prevent the population of these States; for that purpose, obstructing the laws for naturalization of foreigners; refusing to pass others to encourage their migrations hither, and raising the conditions of new appropriations of lands.—He has obstructed the administration of justice, by refusing his assent to laws for establishing judiciary powers.—He has made judges dependant on his will alone, for the tenure of their offices, and the amount and payment of their salaries.—He has erected a multitude of new offices, and sent hither swarms of officers to harass our people, and eat out their substance.—He has kept among us, in times of peace, standing armies, without the consent of our Legislatures.—He has affected to render the military independent of, and superior to, the civil power. He has combined, with others, to subject us to a jurisdiction foreign to our Constitution, and unacknowledged by our laws; giving his assent to their pretended Acts of pretended Legislation.—For quartering large bodies of armed troops among us.—For protecting them, by a mock trial, from punishment for any murders which they should commit on the inhabitants of these States. For cutting off our trade with all parts of the world.—For imposing taxes on us without our consent.—For depriving us, in many cases, of the benefits of trial by jury.—For transporting us beyond seas to be tried for pretended offences.—For abolishing the free system of English Laws in a neighboring Province, establishing therein an arbitrary Government, and enlarging its boundaries, so as to render it at once an example and fit instrument for introducing the same absolute rule into these Colonies.—For taking away our charters, abolishing our most valuable laws, and altering, fundamentally, the powers of our Governments.—For suspending our own Legislatures, and declaring themselves invested with power to legislate for us in all cases whatsoever.—He has abdicated Government here, by declaring us out of his protection, and waging war against us.—He has plundered our seas, ravaged our coasts, burnt our towns, and destroyed the lives of our people.—He is at this time transporting large armies of foreign mercenaries to compleat the works of death, desolation and tyranny, already begun with circumstances of cruelty and perfidy scarcely paralleled in the most barbarous ages, and totally unworthy the head of a civilised nation.—He has constrained our fellow-citizens taken captive on the high seas, to bear arms against their Country, to become the executioners of their friends and brethren, or to fall themselves by their hands.—He has excited domestic insurrections amongst us, and has endeavored to bring on the inhabitants of our frontiers the merciless Indian savages, whose known rule of warfare is an undistinguished destruction of all ages, sexes, and conditions.—In every stage of these oppressions, we have petitioned for redress in the most humble terms: our repeated petitions have been answered by repeated injury.—A prince whose character is thus marked by every act which may define a tyrant, is unfit to be the ruler of a free people.—Nor have we been wanting in attention to our British brethren.—We have warned them, from time to time, of attempts made by their legislature to extend an unwarrantable jurisdiction over us.—We have reminded them of the circumstances of our emigration and settlement here. We have appealed to their native justice and magnanimity, and we have conjured them, by the ties of our common kin dred, to disavow these usurpations, which would inevitably interrupt our connections and correspondence.—They, too, have been deaf to the voice of justice and consanguinity.—We must, therefore, acquiesce in the necessity which denounces our separation, and hold them, as we hold the rest of mankind, enemies in war, in peace friends.—We, therefore, the Representatives of the United States of America, in General Congress assembled, appealing to the Supreme Judge of the World for the rectitude of our intentions, DO, IN THE NAME, AND BY THE AUTHORITY OF THE GOOD PEOPLE OF THESE COLONIES, SOLEMNLY PUBLISH and declare, that these United Colonies are, and of right ought to be, Free and Independent States; that they are absolved from all allegiance to the British Crown, and that all political connection between them and the State of Great Britain, is, and ought to be, totally dissolved; and that, as Free and Independent States, they have full power to levy war, conclude peace, contract alliances, establish commerce, and to do all other Acts and things which Independent States may of right do. And for the support of this Declaration, with a firm reliance on the protection of Divine Providence, we mutually pledge to each other our lives, our fortunes, and our sacred honor

A RINGING DECLARATION.



THE AMERICAN EAGLE.

When freedom, from her mountain hight,
Unfurled her banner to the air,
She tore the azure robe of night,
And set the stars of glory there!
She mingled with its gorgeous dyes
The milky baldric of the skies,
And striped its pure, celestial white
With streakings from the morning light.
Then, from his mansion in the sun,
She called her eagle bearer down,
And gave into his mighty hand
The symbol of her chosen land!

Majestic monarch of the cloud,
Who rear'st aloft thy regal form,
To hear the tempest-trumpings loud,
And see the lightning lances driven,
When strive the warriors of the storm,
And rolls the thunder drum of heaven,—
Child of the sun! to thee 'tis given
To guard the banner of the free,
To hover in the sulphur smoke,
To ward away the battle stroke,
And bid its blendings shine afar,
Like rainbows on the cloud of war,
The harbinger of victory.—*Jos. Rodman Drake.*

THE following truly national poem should be revived with the Centennial Fourth:

"Keep your eye fixed on the American eagle,
Whom we ss the proud bird of destiny hail;
For that wise fowl you never can inveigle
By depositing salt on his venerable tail."

A GOOD way to fasten screws that have become loose, is to fill up the holes tightly with cork. Screws and irons so secured will remain perfectly tight, as when put into new wood.

Who'll Till Our Fields a Hundred Years From Now?

BY HON. EBENEZER AYERS.

Who'll till our fields a hundred years from now?
Fields dear to us by many a lasting tie,
Fields our own hands redeemed from nature's sway,
For which we fought to conquer or to die.

On the drear wild, by copse, by hill, by stream,
Our humble cabins hopefully we reared,
And with the partners of our earlier years,
Our trials, hopes and fears and joys were shared.

We drove the plowshare o'er wild nature's glebe,
And changed the wilderness of the native plain,
And in its stead there rose a houndless sea
Of growing, ripening, emerald waving grain.

Then here and there the village—city rose,
And deft mechanics came with ready skill;
The schoolhouse rises—then the church's spire,
And by each gurgling brook, the busy mill;

And here and there, on some uncultivated knoll,
The marble tombstone rises o'er the head
Of many a pioneer—the loved and lost—
The founders of new cities of the dead.

Who'll be the joyous tillers of these fields,
And with true yeoman zeal will hold the plow,
And with the faith, and with the ardent hope,
That fills the bosoms of the owners now?

No, not such faith, and not such sunny hope,
As filled the bosoms of the pioneers—
For hazard, douht, and perseverance joined,
The noble prize achieved much more endears.

Who'll fill the churches on that Sabbath morn,
And join their voices in the hymn of praise?
Who'll fill the halls of legislation then?
Who win the civic or the material hays?

Who'll be the jolly Grangers of that day,
And spread the hanquet in the festive halls;
Fill every station in the walks of life,
To which their pleasure or their duty calls?

Perhaps some antiquated man may say,
To the forthcoming centenary race,
He knew a few gray headed, tottering men,
That were the pioneers of such a place.

That long, long since those early pioneers
Had sunk beneath the sod their plowshares turned,
And naught remains except the lands they tilled,
And some posthumons fame for good deeds earned.

Impatient nature heeds no laggard wish,
But ever crowds succeeding seasons on,
And, will we, nill we, hurls events along,
Till days and years and centuries are gone.

Childhood will patter, joyous youth will laugh,
Fashion still rule with undisputed sway,
Ambition fire the aspiring statesman's heart,
And equal vanity affect the gay.

The limpid lakes that gem this prairie land
Will gleam as brightly in that future hour
As when the pioneers first stood, amazed,
Then reared their cabins by their pebbly shore.

The genial sunshine and refreshing shower,
Still bless the honest hand that holds the plow;
But all unknown to us the coming men,
Who'll till our fields a hundred years from now.

THE ROOT-CAP OF A PLANT.—A recent writer remarks: "The idea held by the earlier botanists, that the tips of all roots consisted of spongy masses of tissue, by means of which plants were enabled to soak up their food from the soil, has, with the aid of the microscope, been entirely discarded. The term spongiole, which was given to these theoretical bodies, is a landmark of departed ignorance, and furnishes a striking contrast with the known structure (the root cap), with which the tip of every growing root is covered. With the leading botanists of to-day a root is considered to be an outgrowth protected by a cap. This definition seems very short, but if anything further is added, there comes with it a number of exceptions. The name which this covering to the root-tip has received is in itself very descriptive, as it is truly a cap, consisting of a number of layers of quite dense cells surrounding the extremity. These root-caps vary in size in different species of plants; sometimes they are so small that only with the high powers of the microscope can they be seen, while on the other hand they may be readily observed with the naked eye."

ADULTERATION OF SUGAR.—A case of adulteration of sugar, recently tried at Marseilles, has excited a good deal of attention there. Fraud of the kind had long been suspected by the customs officials, and the cargo of sugar in the present case was from Reunion. The Reunion sugars of brown hue are very rich in saccharine matter, and well suited for mixture. It was first thought that the sugar had been mixed with pounded bricks and sand, but on analysis the added matter was found to be slag (a sort of opaque glass formed in the working of various metals, or vitreous lava from volcanoes) along with sand, and an economy of 12 fr. per 100 kilgos. was anticipated. The slag has a bright granular fracture, so that it makes a very good imitation of sugar. The sand was added to make up the weight.

FIRE PROOF SUIT.—An extraordinary fireproof suit, invented by a Swede named Oestberg, was recently exhibited in Vienna, in the presence of the Emperor William and several other distinguished personages. One Captain Ahlstrum, clothed in the suit, walked into an immense fire, prepared for the occasion, of wood saturated with petroleum. The account says: "The heat of the fire was so intense that no one else could approach within eighty paces without being burnt or scorched, but the Captain walked around in the glowing pile perfectly undisturbed, leaning on the burning wood, and finally seated himself on the coals." After remaining in the fire a quartor of an hour, the salamander came out perfectly unharmed, and without "the smell of fire upon his garments."

The Fourth of July in San Francisco.

Arrangements are completed to make the observation of the Fourth of July in this city one of the most notable and interesting ever planned. Land and water, sea and shore will furnish the double field for the exercises of celebration. On Monday, July 3d, upon land, there will be the sham battle and the brilliant display of men at arms, and on the waters of the harbor there will be bombardment by forts and ships of war. Solid shot and murderous shell will belch forth from forts and port-holes. In all features, save that the marks to be fired at are a barren rock and a craft without a crew, the engagement will be as real as heavy shot and dry powder can make it.

Our illustration shows the field of conflict. In the foreground is the Presidio Reservation, where the sham battle of the morning of July 3d will take place. On the water the scene, which those acquainted with the bay will recognize as lying at the entrance to our harbor, embraces a stretch four miles in diameter, and across this the shot and shell will be hurled. The general outline of arrangements is as follows:

The Attack on Sea and Land

Will be made in three positions. The dotted lines in the engraving represent the shot fired from the forts and fleet at the first position.

The lines formed by a dot and dash represent the second position.

The solid unbroken lines represent the third position.

A Represents Fort Point.
B. Lime point.
C. Fleet of war vessels in first position.
D. Angel island.
E. Alcatraz island.
F. Visiting frigates.
G. Black point (Point San Jose).
H. Fleet of war vessels in second position.
I. Harbor View.
J. California Guard Battery of Second Brigade.
K. First, Second and Third Regiments Infantry, with unattached companies, forming the infantry portion of the Second Brigade.
L. Major Hasbrouck's Battery, Fourth Artillery, U. S. A.
M. Major O'Brien's Cavalry of Second Brigade.
N. Presidio garrison.
O. Fire ship, to be destroyed by batteries.

The firing in the first position (dotted lines) will be directed to Lime point, and will be sustained from the fleet, from Fort Point, from Major Hasbrouck's battery, and the California Guard Battery, from Alcatraz, and from Black point. While sufficient racket will be created in this movement to typify a bombardment, the result attained will be little more than target practice from different angles and distances with flying shots from the fleet.

In the second position (dots and dashes) the fire ship will be brought into prominence and will be treated as a hostile iron-clad, or, in accordance with the imagination of the on-lookers, as a whole fleet of monitors belonging to an imaginary enemy. The lines in the diagram represented by a dot and dash indicate the direction of the firing at the ship. The fleet will circle round while firing, as in the Port Royal tactics.

In the third position (straight lines) an exhibition will be given of long-distance firing with shell from Fort Alcatraz.

The Military Display

Will precede the naval maneuvres and the cannonading, and will begin about 10:30 A. M.

In an order issued from the Headquarters of the Second Brigade, the commanders of the infantry regiments and captains of unattached companies will report to the Assistant Adjutant-General, on the Presidio Reservation, on the 3d instant, at 9 A. M., promptly, taking the cars of the Central railroad company to Post street and Cemetery avenue, thence along Cemetery avenue to the Presidio Reserve by the new road prepared for the troops.

Major F. R. O'Brien, commanding the Cavalry Battalion, will report with two companies of his command to Adjutant General Walsh, at the Cosmopolitan hotel, at nine o'clock, for escort duty.

The Commander of the Light Battery, Company A, California Guard, unattached, will report his command to the Assistant Adjutant-General at nine A. M., Presidio Reserve.

The whole of the Presidio Reserve east of the garrison is designated as the review ground, which the Field Officer of the Day will protect. Major James A. Lavan, Second Regiment, N. G. C., is detailed as Field Officer of the Day.

At the Presidio.

A salute of seventeen guns will be fired on the arrival of the Governor and staff at the Presidio. The formal review ceremonies will then be proceeded with and after an interval for lunch the tactial evolutions will be executed. Twenty rounds of blank ammunition will be issued to each man on the field. The column of battalions will be deployed into line. The line will wheel by fours to the left, and next form a new line of battle by moving forward to the left of the first four by a left oblique movement. As quick as the various subdivisions arrive in the line they will wheel about by fours, thus bringing the new line of battle faced to the rear—that is, faced in the opposite direction to which the column of fours were approaching at the moment the movement was ordered. A very picturesque evolution will follow. The battalions will form double columns of fours and move to the new front in this formation. After gaining the necessary ground to the front, the battalions will again deploy forward into line of battle and face about. An advance by echelon from the right will be next presented for the admiring gaze of the multitude. Looking down upon the troops they will appear to the eye like the black squares on a checkerboard seen diagonally. After the necessary interval of rest, the battalions will describe a half wheel to the left into line of battle, thus giving an oblique change of front. The imaginary enemy is presumed to be in this front, and skirmishers will be sent forward to ascertain his intention. They discover him in force and the sanguinary work commences. General McComb, to prevent his army from being utterly annihilated by the stubborn resistance of the foe, will attack it in two lines, the lines advancing, alternately passing through each other, and pouring by turns a shower of paper wads on the enemy, who is now offering such obstinate resistance that the skirmishers are called off and a murderous fire by battalions is directed upon his lines. Under this fierce onslaught he wavers and reels back, leaving his wounded on the field. Like all great captains, the commanding general takes advantage of the enemy's display of weakness, and orders a magnificent advance in line, which culminates in a heroic bayonet charge. The remnants of the enemy having been dispersed or captured, a halt is called, the deadly fire is stopped and the broken lines readjusted. Then the victorious army will be dismissed with a benediction, and the soldiers will retire to their homes and once more don the unpretending garb of the civilian. Spectators who desire to witness the glittering pageant will find favorable points of observation on the surrounding hills. The position from which the plan of operations is supposed to be taken will be the most desirable vantage ground. The best route for visitors will be along Cemetery avenue, taking the California or Bush street cars. This will bring them straight to the Reservation, when they can readily take to the hills and select the point of view that suits them best.

The naval display is not likely to last over an hour, and it is expected that all the maneuvers will be completed by 3 P. M.

On the Fourth

There will be arranged one of the grandest parades and street displays ever witnessed on the coast. Already flags are festooning Kearny street from end to end. In the parade on the Fourth, civic and military organizations will join. The line of march will be as follows: From Second to Montgomery, to Montgomery avenue, to Kearny, to Market, to Ninth, to New Montgomery, to Mission, to the pavilion. At the pavilion there will be stirring and patriotic speeces. Rev. Dr. Stebbins is the orator of the day. Addresses are expected from the Governor and distinguished citizens. In the evening the city will be a blaze of light and life and resonant with music. Those of our country friends who choose to pass the holidays in the city may be sure of a varied and enlivening entertainment.

An Early Celebration.

A portion of the signers of the Declaration met two years after, for a cheery commemoration of their great achievement, in the Philadelphia City tavern. The enjoyment of the occasion was enhanced by the recent deliverance of the city from the presence of General Howe, and by the contrast between this festival and that lately given by the British officers to him. A brief glimpse at the patriotic occasion, from the hitherto unpublished diaries of William Ellery, may well close this narrative.

"On the glorious Fourth of July [1778], I celebrated in the City tavern, with my brother delegates of Congress and a number of other gentlemen, amounting, in the whole, to about eighty, the anniversary of Independency. The entertainment was elegant and well conducted. There were four tables spread; two of them extended the whole length of the room, the other two crossed them at right angles. At the end of the room, opposite the upper table, was erected an orchestra. At the head of the upper table, and at the President's right hand, stood a large baked pudding, in the center of which was planted a staff, on which was displayed a crimson flag, in the midst of which was this emblematic device: An eye, denoting Providence; a label, on which was inscribed, 'An appeal to Heaven;' a man with a drawn sword in his hand, and in the other the Declaration of Independency, and at his feet a scroll inscribed, 'The declaratory acts.' As soon as the dinner began, the music, consisting of clarionets, hauthoys, French horns, violins and bass viols, opened and continued, making proper pauses, until it was finished. Then the toasts, followed by a discharge of field-pieces, were drank, and so the afternoon ended. In the evening there was a cold collation and a brilliant exhibition of fireworks. The street was crowded with people during the exhibition."
—*Scribner's.*

A LETTER from Spring creek, in the Black hills country, gives the following as the price of provisions there: Flour brings $16 per 100 pounds; bacon 35 cents per pound; beans, 16 cents; corn meal, 14 cents; beefsteak, 20 cents; and everything else high in proportion.

At the Centennial.

Notes of Travel, Sight Seeing and Relic Hunting.—No. 1.

[For the RURAL PRESS.]

It is easy to imagine your sanctum overrun with Centennial notes, and were it not like rosemary, "just for remembrance," this would not be written at the risk of adding to the contents of your waste basket. An imperative telegram, summoning me to the opening of the Centennial exposition, gave one day for preparation and seven for the trip from Sacramento to Washington. Selecting the shortest geographical route, *via* the "Omaha and St. Louis cut off"—a new road inaugurated last February, I missed the opening by 48 hours, on account of wash-outs on said road in Nebraska, and have the consolation of believing that Providence thus interposed to spare me the crush and fatigue and mud of that notable day.

At the Exposition.

A week of sight seeing in and around Washington was all the rest allowed me, preparatory to the first installment of this greatest and grandest exposition that the world ever saw.

The second week after the opening found us on the Centennial grounds, housed in a "temperance hotel," five minutes' walk from the entrance on Elm avenue, near the main building. To encourage those who may be deterred from coming to Philadelphia through fear of high prices of living, I will say that comfortable rooms, accommodating two persons, may be had for $1 00 and $1.50 per day, and meals at 50 cents each and upwards, either at hotels or restaurants, both outside and within the grounds. If one is there merely to see the exposition, it is by all means better to locate as near the center of attraction as possible, and thus avoid the long and tedious trips to and from the city in crowded cars, at the expense of two or three hours daily. I would say to all those who intend coming, plan to stay as long as possible, but in any event come, if for ever so short a time. It may not happen again on our continent for many years, nor on any other, perhaps, that 40 different nations will be represented in a characteristic manner in one building, or that the finest collection of art ever exhibited in one place is grouped together so that in less than a day's time it may at least be all glanced at, while the various buildings that furnish headquarters for the commissioners of different nations are all highly characteristic and afford an opportunity of study and observation that only months of foreign travel can give.

The grounds are themselves delightful, and in Lansdowne valley one may enjoy a seat in the shade, bathe their hands in the romantic little stream that wanders through it, and at the same time listen to the wonderful strains from Gilmore's band, that every forenoon vies with the birds and hum of human voices in that lovely retreat.

If one can afford to take the Centennial leisurely, it is a great relief to vary the inspection of exhibits in the the interior of the building by strolling out among the fountains and lakes, among the quaint structures erected for many purposes, where one may almost always find a seat and, if desired, a communicative companion, in the person of guard or exhibitor.

Our time being limited, we made the entire round of the exposition in three days, and, after a rest, began the business of looking after specialties and new exhibits, which, I am vexed to say, will be opened daily long after we reach the Pacific coast, as now appears from the piles of unpacked boxes in the Turkish, Russian and Chinese departments especially, and notably also in the department of art.

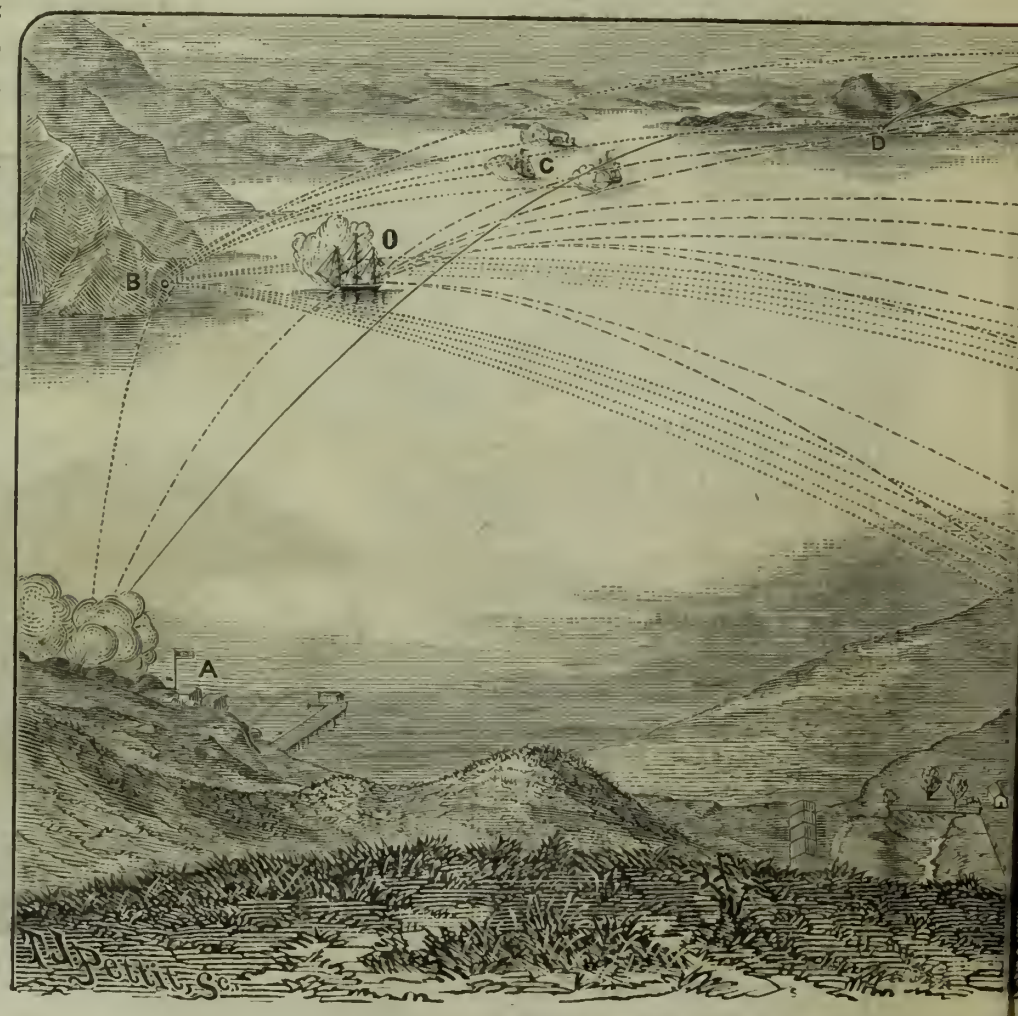
Securing Mementos.

There is still enough to see, and happy the man or woman who does see and appreciate it all. And I venture to say that no woman of culture will examine the rare laces and china, the exquisite carvings in silver, wood and ivory, the bronzes, jewelry and embroideries, the pictures, statuary, tapestry and mosaics, without breaking the tenth commandment, or something near it, by desperately wishing for often impossible duplicates.

But one is met at every turn by the exasperating assurance that nothing can be removed from the Exposition until next November, and one day's experience fully convinced us that the commissioners are in earnest about this very proper restriction. Searching one morning for mementos, we visited an upholstery section in the British department of the main building, where the week before the gentleman in charge had offered to sell a fine piece of satin damask, used as a sample in taking orders for covering furniture. But meanwhile the Custom House officers had measured his goods, and threatened to shut up his place and confiscate all it contained if at any time they were found not to exactly correspond with their inventory.

"But," said the exhibitor, "at Vienna we were allowed to buy and sell as much as we chose, and turned the exposition into a regular bazaar." He is allowed to take orders and deliver them as soon as they can arrive from England, and New York people have already ordered some of the choicest goods, that would grace a Sultan's palace.

But that was too far fetched for us, so we went over to a stout old Englishman in charge of a case of common English pottery in odd shapes and colors, the like of which he assured us in a tantalizing way were not to be found in America. Would he sell that lovely green and brown teapot and creamer in rustic pattern? Yes, and it was very cheap, too, but we could not take it away. "You call this a free country," but he had never been so hampered and restricted in all his life. Some of the cases had been locked up and were under the seal of the Custom House inspectors, for selling and delivering a few trifles. So we parted with mutual regret, but after all the grumbling of exhibitors and visitors, none of us would like to see this



Sham Battle and Grand Naval Bom

superb exposition spoiled by the confusion and continual change that must arise if what is on exhibition to-day were sold and removed to-morrow. However, there have been and are to be bazaars opened upon the grounds in connection with the Turkish, Italian and other departments, where goods are to be sold and immediately delivered.

For ourselves, we were obliged to content us with the "flags of all nations," bookmarks and badges woven in machinery hall and the woman's building, Centennial fans, photographic views of the buildings, etc. But many homes will be enriched by these works of industry and art, as many are already marked "sold," and usually the name of the purchaser attached. We notice that newspaper writers complain that the

Prices of Goods

Are so constantly flaunted before the public, but I am sure the eager public are more than ready to forgive a weakness that furnishes knowledge they are so anxious to possess. This is not true of the marbles, however, as we saw no price affixed in any case, although many were labeled "for sale," or "sold." Indeed, many of them are so recently unpacked that they are not even catalogued, and no clue is furnished as to the origin or destiny of these exquisite gems of art. One little fellow in marble attracts great notice by the forlorn curl of his lip and two big tears rolling down either cheek because forced to say his prayers, the cross hung from his neck, and the label hinting that they are not of the sort that his tired little heart can appreciate. Another very beautiful and lifelike statue is a girl holding a plump, lusty looking baby, and at the same time a cup containing his food. She has taken a spoonful, and is cooling it by blowing, with the under lip curved with the exact touch of nature, while baby gives a lusty kick to show his impatience. This reminds me that I learned last night of several acts of vandalism in chipping bits from these marbles and even pictures as relics. We cannot see how sufficient protection is to be furnished in the way of barriers and official guards to keep such wickedly selfish beings from ruining some of the choicest works of art in existence, unless a public example can be made that will once for all intimidate every one subject to this temptation.

While in the art gallery I may as well speak of a

Mosaic Picture of Washington

Which hangs in memorial hall, on the left as you pass out to the annex, which has been "presented to the city of Philadelphia as a souvenir of independence declared in that city July 4th, 1776. Presented by L. A. Gallandt, mosaic manufacturer, Rome." The work is finely executed and of life size, but the color is just the tinge of yellow that one sees in subjects of fever and ague along the Missouri river; and of course it is unmistakably Washington, but one grows so tired of his tame physiognomy as seen on paper weights, glass statuettes, bookmarks, etc., that one needs to be exempt from the sight of all of them for a while before judging without prejudice any likeness of the Father of our Country.

Mosaics.

In the first room of the annex are displayed the wonderful Florentine and Roman mosaics, hung in pictures on the walls and disposed about the room as slabs for the tops of tables or already mounted.

One of the finest, inlaid in ebony, represents a harp and statuary, vase and flowers and artists' tools; price $5,000. Next to this is one still more elaborate, also in ebony, a scroll of music (Norma), masque, guitar, book in pearl, Comedy of Dante, vase of flowers, painter's palette and globe in a frame; $10,000. Another, but not so beautiful, is a Florentine mosaic inlaid in real porphyry; $5,000.

One of the most beautiful was an ebony slab, inlaid with urns, flowers, shells, and a full length figure of Flora, a locket, with ribbon of malachite, exquisitely inlaid with lilies of the valley and forget-me-nots; $5,000, gold. And so on, down to $3,000, even which seems rather a high figure for republican America in these hard times. I didn't mean to take you to the art gallery, it is such a bewildering, hopeless sort of a place, and withal so fascinating that once inside only the order of the guards to close would release you from the spell.

The State Buildings.

The hour for closing all the buildings is six o'clock, but one evening a lady companion and myself presumed upon the courtesy of the officials and made a tour of the, State buildings, which are situated in the most delightful part of the grounds, nearly all in a line and facing the beautiful lake and main buildings, bridges and lawns. Sitting on the porches in the rear and looking down the beautiful lawns, shaded by trees of natural growth, one could easily imagine himself at home, whether in New Hampshire, New Jersey or wherever that favored spot might chance to be.

The gentlemen in charge were in several cases sitting upon the front porch with a look of supreme affability and content, and to our remark that "it was rather late to call," graciously responded that "the latch string was always out and they were very glad to see us." A book for registering names of visitors is kept in each of these buildings, although some are exclusively for residents of the State owning the building, and one cannot help remarking that the line of free hearted cordiality decidedly tends towards the West, in this as in most other matters.

All styles of architecture are represented, from the little log cabin of Mississippi on the hill, hung with gray moss, to the stately stone building of Ohio and the foreign looking house of many rambling roofs, covered with red tiles, claimed by New Jersey, and, I had nearly forgotten to say, the California building with its swell back and dome-like appendage on top, which gave rise to all sorts of speculations as to whether it was a huge water tank or Mohammedan mosque. However, we are assured that it will be a very fine hall when finished, and it is rapidly approaching completion.

Searching for specialties one day, we visited the

Colorado and Kansas

Building, which was not yet open to visitors, but we quietly ignored the sign "no admittance" and went aronnd to a side door, where the Kansas commissioner kindly received us, introduced us to the exhibits, which are among the finest of the kind on the grounds and the most tastefully arranged, unlocked the ladies' parlor, gave us seats and went to find Mrs. Maxwell, the Colorado huntress who has killed over four hundred wild beasts and stuffed them, together with a large collection of birds, which are to be exhibited in the Colorado section of this joint building.

Many of the animals were already mounted upon the artificial rocks and mountains which she was helping to construct in one corner of the main hall. Her manner was cordial and womanly to the last degree, and she chatted modestly of her exploits in killing buffalo, elk, foxes, wolves, bears, eagles, etc., saying that her husband was not always at hand when she needed to use a rifle, so she had learned to use one herself.

Another notable we were anxious to interview was the lady engineer who runs the Baxter engine that operates the looms in the woman's building. We found her in the little brick annex in the rear, dressed in an embroidered linen suit, looking as clean and cool as if in a parlor. She had always been familiar with engines in her father's mills in Canada, had studied the subject with her brother, who is a civil engineer, and perfected her knowledge by a thorough course elsewhere. She preferred the business to teaching school, and there were several young ladies expecting to take lessons of her this summer.

Specialties.

Supposing that everybody knows what is in the woman's building, I will only say that I noticed a large display of Mrs. Flynt's reform garments, and heartily regretted that Mrs. Curtis, of San Francisco, Cal., could not have matched her own inimitable inventions beside these and thus given the world another valuable hint towards reform in the right direction.

Another special exhibit was 90 varieties of apples, received from Melbourne, Australia, last week, *via* San Francisco, all in fine condition, displayed in Victorian court, main building. Each variety was carefully labeled, and some of them looked very fine. All were ripened in March, the exhibitor said, but he looked so unmistakably "hands off," that we didn't ask to be allowed the privilege of eating a foreign apple, as we were tempted to do.

The exhibit of fruits from Jamaica in agricultural hall, to be followed by others during the season, attracted much attention. Shaddock, mangoes, yams, mammee apples, jack-fruit, convey but little meaning to the untraveled native American mind, but it was some satisfaction to us to put our index finger into some of it, through the coarse netting thrown over it, to ascertain its degree of softness and to express our dissatisfaction that it was all to rot and be thrown away in a few days, when we wanted to put a tooth into some of it so very much. The sapodillos are about twice the length of an apricot, with about the same width, thickness, color and texture of skin.

The exhibitor indulged my vindictive punch into one of them, and seemed to make due allowance for my feminine curiosity to taste the forbidden fruit.

The mammee apples are an extremely rough looking, russet fruit, about the size and shape of an ordinary apple.

The exhibits on this table are to rotate during the season, it being filled the week previous with tempting Michigan apples, which were distributed about somewhat promiscuously.

Near this section is "Old Abe," the veteran Wisconsin war eagle, the hero of 25 battles, who exhibits his soldierly bearing daily for the benefit of the ornithological society in the State that is so justly proud of his career and history. His life and photograph are for sale by the soldier who carried him as the battle flag of the Eighth Wisconsin during the late war.

One afternoon we reveled among sewing machines, and discovered two which make a lock stitch without a shuttle, the Wardwell and Monitor, a consummation for which so many have been anxiously waiting these long years. They are just being introduced into market and seem to possess all the excellencies of other first-class machines.

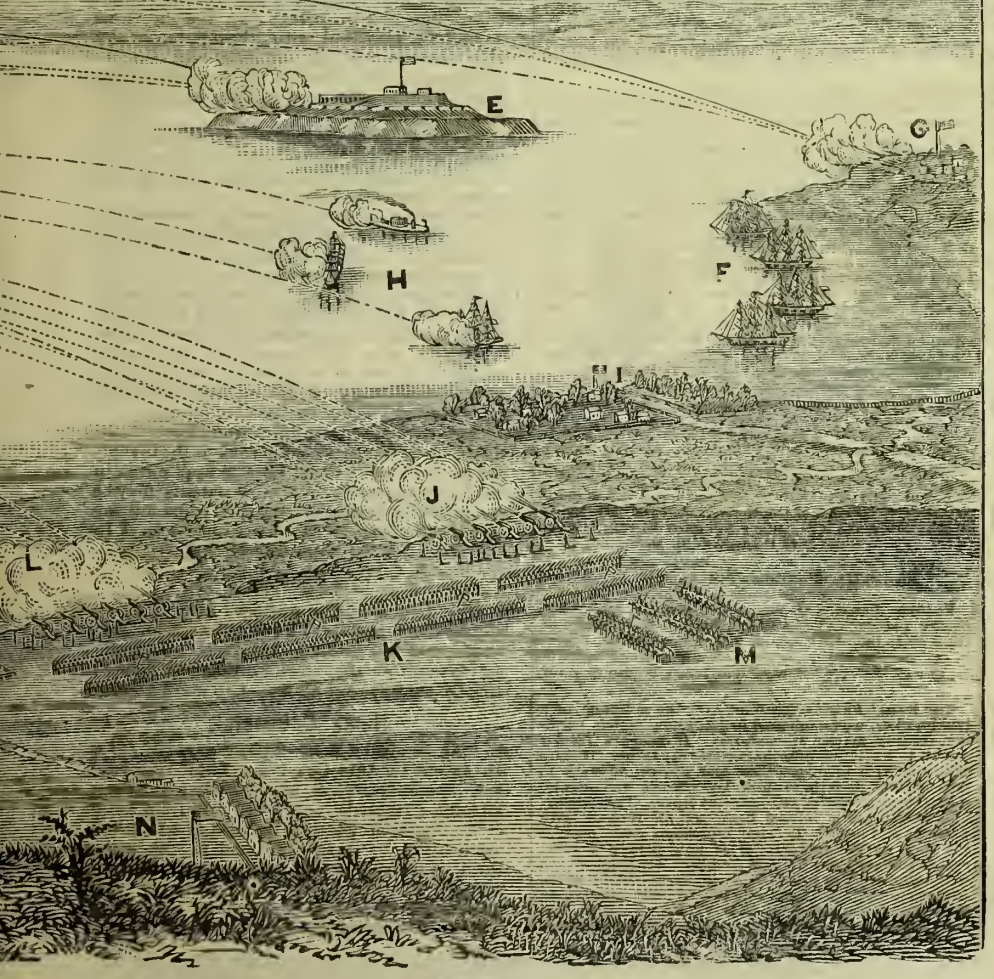
Darning Machine.

Being mindful of the injunction of the stocking-darner of our family, to purchase a machine for performing that labor, I was glad to stumble accidentally upon one in machinery hall, and enjoyed seeing a gentleman darn a hole, made for the purpose of showing off this "cast iron grandmother," in the most improved manner, which he graciously bestowed upon your correspondent, while a lady remarked it would be handy to have one's husband do up the family darning in the evening, while the wife read the papers.

C. A. Colby.

Washington, D. C., June 8th, 1876.

The Celebration in New York.—A telegram from New York says: Preparations for the celebration of the third and fourth are almost completed. The parade will be one of the most imposing demonstrations ever witnessed in this city. The entire first division of the National Guard will turn out and a number of civic societies are to participate. It is calculated the procession will be five miles long. The processionists will carry torches. The houses on the route are to be brilliantly illuminated.



nt in S. F. Harbor, July 3d, 1876.

A Centennial Tribute.

[Composed by Sarah Morton, of Merced, graduate of the College of Notre Dame, of the class of 1876.]

Tho' many a poet's hands have swept
With wondrous touch the mystic lyre,
And strains of patient sweetness stirred
Our hearts with their impassioned fire,—

Tho' thousands still in silvery tones
Will consecrate this hallowed theme,
Yet would a daughter of the West
Fain cast one leaflet in the stream.

One leaflet from Pacific's shore,
From California's lovely State,
Upon the mighty onward tide
That flows through Freedom's golden gate.

One leaflet 'mid the wealth of flowers
Strewn round our fair land's deathless fame
By pens inspired with magic power
Her peerless prowess to proclaim.

One bud among the votive wreaths
That grace Centennial gold-draped halls,
A tribute of the glorious past
Ere down the silvery curtain falls.

And softly borne on pinions glad,
Like crystal spray beneath the sun,
Are echoed far from shore to shore
The deeds our noble sires have done.

Theirs is the glory, ours the weal,
And as our suns in splendor glow,
We reap the golden seed they sowed
Just one bright hundred years ago.

Oh, ever bright be their pure bays,
And green the mounds of fallen brave;
In blood they wrote their glowing tale,
They fell our own dear land to save,

Then when liberty's sun was set
And freedom crushed and panting fell,
Till Britain's swords ceased clashing, and
Her guns grew cold in Yorktown's dell—

A hundred years ago! What thoughts
Rise up like stars in night's dark dome,
Of those who nobly lived and died
To win us freedom's happy home.

Atlantic's stormy billows heaved
A hundred years ago as now,
But what a change those years have wrought
Upon our country's noble brow.

The East, then but in part unveiled,
Has since the curtain folds unrolled,
And where the wild untrodden glade
Once stretched, now dome and spire behold.

And in the far-off, boundless West,
'Mid unmarred splendor rich and rare,
Vast rolling plains and forest bowers
Unknown were spread in grandeur there.

Her giant pines with æolian strains,
Till o'er the grand old forest dells
And streamlets spanned by Iris dyes
All softly sweet the cadence swells.

Broad fields of waving grain now bend
Where once were barren, wildwood plains,
And mighty falls and rivers swell
Successful labor's choral strains.

And o'er the land from East to West,
The iron charger's tramp is heard,
And with a warm electric pulse
Columbia's heart of hearts is stirred.

And railroad, telegraph and press,
And commerce with her white-winged fleet
All add new luster to the land
Where wealth and power and glory meet.

And our fair land, our bounteous State,
Is smiling 'neath our Western skies;
Nor Italy, nor Syrian clime,
Can rival her in our fond eyes.

Yosemite's grand wond'rous vale
Will charm as long as earth shall be,
And Shasta's clouded dome shall rise
Till time shall be eternity.

But dearer far than nature's charms
We hold our legacy of fame,
Our heroes of a hundred years,
Our Washington's immortal name.

And thanks to God our country stands
To-day, her starry flag unfurled,
And waves its wond'rous radiance now
Far o'er our grand republic world.

Float on, thou loved and honored flag,
North, South, East, West, from shore to shore,
And our brave eagle, proudly spread
Thy broad, free wings forever more.

A Little Centennial Expedition.—At noon on Tuesday Mr. J C. Temple, of Carthage, Jasper county, Missouri, arrived in this city pushing a wheelbarrow loaded with 50 pounds of lead ore from the mines in his region. Mr. Temple is past the middle age, but is strong and vigorous, and shows few signs of fatigue after his arduous journey of over fifteen hundred miles. In October last he sent out circulars to the Joplin, Oronago and other mines asking that specimens of their ores be sent to the mayor of Joplin, and offering to wheel 50 pounds weight from that city to the Centennial. He started February 28th, accompanied by his son Otto, aged 13, and Thomas Wilson, an Englishman, who wheeled the baggage barrow. The route chosen was by way of St. Louis, thence to Vincennes and Madison, Indiana; Cincinnati, Zanesville, Xenia, Columbus, Ohio; Wheeling, West Virginia; Uniontown and Lancaster, Pennsylvania; and thence along the old Lancaster pike to this city. Everywhere the little Centennial expedition was kindly greeted, and in some villages many of the inhabitants turned out and escorted it a short distance on its way. The best distance made on any one day was 27 miles and the journey took 105 days. This was due to bad weather and bad roads. Mr. Temple's ores, which he hopes to find a nook for in the Centennial buildings, comprise splendid specimens of lead, iron, zinc, spar, garnet and black jack. The latter holds 20 per cent. of lead, but some of the specimens are nearly pure.—*Philadelphia Times, June 15th.*

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THE THRESHEAE' GUIDE, by D. W. Hollihan, a practical operator with threshing machinery in California and other States. A book of nseful and friendly hints to the grain growers, machine owners and threshing superintendents and workmen. Published at the RURAL PRESS office, in 1872. Price, $1; in limp cloth binding, 75 ccnts; poetage paid.

L. F. MOULTON, of Coluea county, offers very cheap and on terms to suit hsrd times, some choice farms of bcst land in the State, on ihe line of the Colusa and Chico railroad eurvey. Forty hushels per acre has been raised this season on adjoining land of eame quality.

TROUGHTLESSNESE.—Persons sometimee return thei paper, marked "stop this paper." Their name heing pastsd on the sheet they think that ie all we need to he able to cross their names off. Now that ie thoughtlesenece. Your P. O. address is needed as much ae your name. We have thonsands of namee arranged only according to locslity. Our mailing clerk doee not know where everyhody livea.

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We also want the address of Wm. Buck.

SAMPLE COPIEE.—Occaeionally we send copies of thie paper to persons who wo helisve would be benefited hy enhscribing for it, or willing to aeeist ue in extending its circulation. We cali the attention of such to our prospectue and terme of subscription.

At our requeet, Cragin & Co., of Philsdelphia, Pa., have promieed to send any of our readers gratis, (on receipt of 15 cents to pay poetage,) a sample of Dohhins' Eleciric Soap, to try. Send at once.

UNKNOWN.—We have lately received cash at thie office without due explanation, as follows: From Carson, Nev., $4, hy exprees.
The sendere will please give full addreas, date of sending, etc.

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Up To The Times.

EDITORS PRESA. — I am much pleased with your papers, particularly the RURAL PREEE. It seeme to be fully up to the timee, and of a high moral tons.
LE ROY WHITFORD,
Patentee Whitford's Potato Coverer

THE RURAL PREEA.—Glancing over the columns of a late number, we are pioaeed to find how much excellent reading matter it contains. It keeps a farmer posted i the latest information of real value. It is up with the times in euggestiona and advice, answers to queriee, etc. It telle of new trees, seeds and plants, mentions diecoveriee and nseful recipes. The farmer; his wife, hoye, girls and help, can all read it with pleasnre and profit. It fairly repreeente each part of the State to immigrante. It is now giving a short sketch and statistics of each county. We ehall watch with intereet when it gets down to Santa Barhara Co. It gives prominence to an article from our colums on the state of the crops in this valley. Farmers, you can't afford to be without that paper.—*Lompoc Record.*

OUR POULTRY DEPARTMENT.—Wo are in receipt of frequent lettere expressing admiration of our Poultry Department. Mrs. Stoddard writes: "I look for Mr. Eyre'e articles the first thing." Mrs. Pike eaye: "They are just what we want, common eense, plain and to the point." A. P. Smith writes: "I shall uot take the *Poultry Bulletin* another year, as I get more information in regard to management of poultry from Mr. Eyre's writings in the RURAL PRESS, which I shall keep for reference." We are glad to know that our readers find our Poultry Department eo valuable.

"OALIFORNIA PATRON."—The first number of this eight-page monthly wae issued May 17th, 1876. It is specially a Grange medium, exclusively under the editorial control of the Executive Committee and officers of the State Grange. Neatly printed, and well filled with official documents, Grauge reports, and news of fraternal intereet to Patrone. Subscription, 50 cents a year, in advance. Addross, "CALIFORNIA PATRON," P. O. hox 2361, or No. 40 California St., San Francisco. Sample copies, postpaid, five cents.

BETTER RETURNE, ETO.—One of the largest business firme in Sacramento wriies us, Octobsr 30th, 1875, remitting the cash for advertising, and a new order with the following remark: We are more than gratified with the reeult of our advertising in the PRESS. It has brought us better returne than any paper we have ever patronized. Yonre truly, J. G. & Co.

A REAL CONVENIENCE.—DEWEY & Co: Please send me the RURAL PRESS. It ie a roal convenience and I cannot do without it. Encloaed you will find five dollars. Fraternally, B. F. E. K.
Anaheim, Cal., October 12, 1874.

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We invite the acquaintance of all parties connected with inventions and patent right business, believing that the mutual conference of legitimate business and professional men is mutual gain. Parties in doubt in regard to their rights as assignees of patents, or purchasers of patented articles, can often receive advise of importance to them from a short call at our office.

Remittances of money, made by individual inventors to the Government, sometimes miscarry, and it has repeatedly happened that applicants have not only lost their money but their inventions also, from this cause and consequent delay. We hold ourselves responsible for all fees entrusted to our agency

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The agency to which we would now call the attention of the readers of the CALIFORNIA PATRON, was established twenty years ago, and is the oldest establishment of the kind on the Pacific coast. From a small beginning in 1855, it has grown to such dimensions that it has been compelled repeatedly to move into more commodious quarters, and now it occupies the large double store formerly occupied by M. Gray & Co., **No. 625 Clay Street**, next door west of the banking house of the San Francisco Savings and Loan Society, one of the most central business locations in the city. MESSRS. CROSETT & CO. are daily supplying orders sent from all parts of the State, containing requests for every variety of labor, for the farm, the field, orchard, vineyard, tending stock, or cultivating the soil; for all kinds of lumber, milling and mining work, from superintendent down to simple laborer; for the shop, mechanics, engineers, artisans, and skilled workmen of every kind. Nor do their orders contain requests for male help alone. Great pains is taken to supply our housewives with the very best Domestics, Cooks and General Housemaids that can be obtained. They would call the especial attention of GRANGERS AND FARMERS GENERALLY to their facilities for supplying farm help. Referring confidently to their past record for faithful attention to the wants of patrons, they have no hesitation in assuring all applicants who may favor them with their orders, that they can nowhere else be better or more promptly served than by applying to this old established agency. Mr. Crosett gives his constant personal attention to his business. His long experience makes him quick to see and accurate in judging of the merits of those who apply to him for situations. And his well established and wide extended reputation brings to his office an abundant supply of every kind of labor, from which he is enabled to select the best.

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AN ESTATE IN SAN DIEGO COUNTY.—Readers have doubtless noticed the advertisement of Lee H. Utt, of San Diego county, in which he offers for sale a share in the estate called "Aqua Tibia" in Pala, San Diego county. Mr. Utt, as we are informed, has brought his property into a fine state of development, and finds that its management requires the time of two men. He cannot secure hired help to take an interest in the work and stay permanently as he desires, and so he asks for a man to take half ownership and assume the active control of the property. It is an opportunity which we consider worth looking into.—*Rural Press, June 10th.*

NOW'S THE TIME.—Everybody interested in mining and agriculture should subscribe for the Centennial year for either the RURAL or the SCIENTIFIC PRESS, published by Dewey & Co., San Francisco. They are the best journals of the kind in this country, and deserve the support of all those whose cause they espouse. Everything of interest connected with the Centennial, appropriate for these papers, will be collated. Send in your names.—*Mountain Messenger.*

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Under the Auspices of the

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The managers have the honor to announce that the forthcoming Exhibition will be opened to the public on

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At 11 A. M., with the usual ceremonies. By the desire and co-operation of the leading citizens of San Francisco, the Exhibition will be held on a much grander scale than heretofore.

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The Exhibition will continue at least one month.

There will be no charge for exhibiting space.

Application for space or for information should be addressed to the Secretary of the Board of Managers, Eleventh Exhibition, 27 Post St., San Francisco, or to J. H. Gilmore, Supt., at same address.

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Mr. Lee H. Utt, of Pala, San Diego county, offers for sale a share in his valuable place, consisting of 320 acres, and situated as described above. There is an Apiary on the ranch in successful operation. For this business it possesses marked advantages. Twenty acres are seeded to alfalfa and eight acres are in vines. The place has growing on it 420 trees, many of them in bearing.

The owner will warrant the Cavendish Dwarf Banana to grow as well here as in Florida. He has three now growing. The pasture now enclosed will keep 50 head of cattle. The ditch—which is large enough to run a mill—is stocked with trout, and has a fish pond 100 feet square, and full of fish. There is a nice warm spring, with bath house; the water contains sulphur, salts and iron.

The place possesses great natural advantages, and the present owner has not spared money nor labor to improve; but being a valetudinarian he is not strong enough to attend to the work. To the right kind of a man a rare opportunity is here offered. To such a person as will come in good faith he extends the invitation to stop on the ranch long enough to become familiar with its characteristics and capacities.

Parties can refer to I. Nast, stock broker, San Francisco, or to anybody of note in San Diego. The place bears the name of "Aqua Tibia." Address,

LEE H. UTT,
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FOR SALE,

IN LOTS TO SUIT,

5,000 Acres of the Lake Vineyard Land and Water Association.

These lands are in the great fruit belt of Los Angeles County,—only six miles from the city—are peculiarly adapted to semi-tropical fruits, and adjoin the famous Lake Vineyard of Hon. B. D. Wilson. The Southern Pacific railroad runs through the land; convenient to schoolhouse and church; water in abundance, and the water-right is sold with the land. Title perfect. A Map of the tract may be seen at the office of Mayor Beaudry, on Spring street, opposite City Council rooms. References may be made to HON. B. D. WILSON or J. DE BARTH SHORB, at Lake Vineyard, who will take pleasure in showing the lands. Also, to MAYOR BEAUDRY or D. FREEMAN, Los Angeles city.

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FOR SALE—My POULTRY BUSINESS, with my Farm of 115 acres; 22 acres of Vineyard and Orchard; House of 10 rooms; Barns; Granaries; 30 Chicken houses.

Receipts between $3,000 and $4,000 a Year,

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In view of above I offer a few fine Fowls, Bronze Turkeys, etc. (not included in breeding pens and stock sold with farm), at reduced prices.

Fine Dairy Farm for Sale.

An undivided half interest in a fine Dairy Farm of 640 acres patented land, all inclosed. One hundred acres is good agricultural land, on which fine crops of timothy hay, potatoes, apples, etc., are raised. Balance affords fine grazing for 100 head of cattle and is also handsomely timbered. Plenty of fine running water at all seasons, and a valuable mill site and privilege are on the land. A good cash home market for all the produce of the place. Improvements, a comfortable house, three large barns, farming implements, wagons, etc. Also 40 head of good milch cows, 60 head of young cattle, horses, etc. There is also a large outside range of from 2,000 to 3,000 acres held under possessory title. Will be sold at a bargain. For particulars apply to

BERRY & CAPP, 418 Montg'ry St.,
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The plan proposes that instead of using dividends in reduction of the annual premium, the insured may, at his discretion, pay his premiums in full in cash, and surrender his dividends to the company. In consideration of this surrender, the company will agree to pay the sum assured when the policy-holder shall have attained a certain age, or at his previous death, instead of at death only, thus enabling him to procure an Endowment Policy at the usual rates charged for policies payable at death only.

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SUTTER CREEK, February 26th, 1875

MESSRS. DEWEY & CO.—I have received my Letters Patent through your Agency. And, for your promptness, accept my thanks. Yours, S. N. KNIGHT.

FRUIT JARS.

The preserving of Fruits by hermetically sealing in glass jars has increased rapidly in the last eight or ten years, so that to provide a store of fruit and vegetables in their natural condition for winter use is becoming not only a necessity, but is a provident measure, alike conducive to health and pleasure.

The Gem and Porcelain Lined Jars

Possess all the advantages and none of the disadvantages of other patent jars, and are in fact the only reliable self-sealing jars in market. Each makes its joint on the flat shoulder, blown in the glass, on the outside of the mouth of the jar, and below the top. The surface of the shoulder on which the joint is made is perfectly smooth. The rubber being outside and below the top of the jar, the syrup cannot be exposed to it, to taint and discolor it; at the same time its shoulder, blown in the mold, on which the rubber rests, corresponds with the thread on which the screw fastening works, so that it insures equal pressure on all parts of the cap and rubber ring, thereby insuring a tight joint. These jars have arrived so near perfection there is no hesitation in warranting every jar to preserve fruit an indefinite space of time if care is taken.



MASON'S PORCELAIN LINED.



THE GEM.



THE GROOVE RING.

This jar has a groove in the top of ring in which a tin cap is placed, after which the wax is poured into the groove, thus making a hermetic seal. This is a very reliable and cheap jar, costing about one-third less than the patent jars.

The testimony of physicians, added to the experience of many, corroborate the belief that acid fruits preserved in tin cans are very unwholesome.

San Francisco and Pacific GLASS WORKS,

(Incorporated June 9, 1876.)

CARLTON NEWMAN, Manager,

OFFICE and WORKS, KING STREET,

Near foot of Fourth,

MANUFACTURERS of Vials, Bottles, Minerals, Carboys, Demijohns, Patent GEM Fruit Jars, GROOVE-RING Fruit Jars, etc., and Sole Manufacturers of NEWMAN'S PATENT PLASTIC DEMIJOHNS, and PATENT BOX DEMIJOHNS.



CALVERT'S CARBOLIC SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

BEFORE PAINTING YOUR HOUSES

Send for Sample Card and Circular and Carefully Examine the

AVERILL CHEMICAL PAINT,

MIXED READY FOR USE.

This Paint is prepared in liquid form, READY FOR THE BRUSH. It requires no addition of oil or spirits. It is composed of the best materials known to the trade—Pure Linseed Oil, Strictly Pure White Lead, Pure Zinc, and the finest of coloring matter for tinting. It is the BEST, CHEAPEST, MOST DURABLE AND BEAUTIFUL PAINT IN THE WORLD. Is just what is wanted by every farmer, mechanic and everybody who has a house, fence, barn, or wagon to paint. Requires no skilled labor, as any one can apply it who can handle a brush. It is put up in cans of any required size, from a quart to five gallons, and is SOLD BY THE GALLON. It gives a firm, elastic and brilliant glossy finish, and will neither crack, peel or wash off, like most paint in common use, but is proof against rainstorms and all action of the elements. Buildings painted with this paint five years ago look fresh and like new to-day and will need no more paint for years. Of no other paint can this be said and proved.



The Averill Chemical Paint Company supply a long-felt want. They not only furnish a Paint more lasting, handsomer, and at the same time cheaper than the best of others, but it is in a liquid form—white and all the fashionable and most exquisite shades—ready for the brush. So that farmers, in fact everybody, can be their own painter if necessary. Indeed, all the buildings upon which the Averill Chemical Paint has been applied, are marvels of beauty.—*Christian Union.*

We know of no subject of such importance to householders as that of a good, handsome, durable paint for their dwellings. Within the past few years we have watched the progress of the Averill Chemical Paint and have had frequent opportunities to test it fully. We think it just the article to supply the need, and give it our hearty endorsement.—*N. Y. Independent.*

From the Thousands of Testimonials sent us, we select the following, which we present for your careful consideration:

A PAINT FOR FARMERS.—Prof. J. B. Turner, Jacksonville, Ill., is a man of great practical knowledge and experience; hence, we attach a great deal of value to the following, from his pen, which we find in the *Prairie Farmer:*

"Some two years ago I sent for and got from a barrel to a barrel and a half of Averill Chemical Paint, of light dun color, which I thought would suit me well enough for all work—houses, doors, blinds, fences, bee-hives, wagons, tools and all. I put two coats upon my residence here, and run over three or four of my smaller farm houses on my farms. With what was left I painted my bee-hives, wagons, wheelbarrows, rollers, harrows, fences, etc., etc. and on all these buildings, implements, tools, gates, etc., the paint is as hard and glossy to-day, so far as I can see, as it was a month after it was put on, and bids fair to hold its own at least for five years to come, (if not ten of them,) better than ordinary white lead and oil does for even two years.

"I have watched it now for about two years with interest and care, and have never found a single spot where it peeled, cracked, or chalked off, as our other paints do. Others who have used this paint like it equally as well. But the point is, I can take one and the same keg and brush, and go over all my buildings, wagons and tools, with no needless waste of paint, brushes or time. It is quite as good for inside finish, as it leaves a coat that shines and washes like glass."—*Moore's Rural New Yorker.*

THE AVERILL PAINTS.—In reply to some inquiries of our readers, we would state that we have given these paints, prepared by the Averill Chemical Paint Company, a full trial, and they appear to possess all that is claimed for them; spreading easily, adhering well, drying soon, and imparting handsome shades of color to the surface covered. Farmers and others who do their own painting, may avail themselves of the convenience of purchasing these paints, of any desired shade, already mixed for use, at a very reasonable price.—*Cultivator and Country Gentleman.*

PLACERVILLE, October 7, 1875.

TO THE CALIFORNIA CHEMICAL PAINT CO: Gentlemen—In reply to your letter I have to state that for more than six years I have dealt in and used your paint. I have during that time carefully observed its application and use, and from practical knowledge can certify to its unrivalled excellence. During my six years' acquaintance with it, there has not come to my knowledge a single instance of failure in any case where it has been used. All to whom I have supplied it unite in commending it for its superior claims over all other paints now in use. The Averill Paint externally used, or, in other words, exposed to the action of the weather, neither rubs off nor changes color, as do other paints, and will retain its freshness and adhesive property for years. Pure lead and oil will in a short time become dry, and are easily rubbed off; the loss of oil leaves the lead in a dry, oxidized state. As a matter of economy the claims of the Averill Chemical Paint to popular appreciation and general use are beyond question. A house properly painted with it once will be better preserved, and present a neater appearance at the expiration of seven years, than it would if twice coated with lead and oil paints now in use. There can be no question, then, that to use it is both labor-saving and economical. So well assured and convinced am I of its established right to this distinction over all kinds, that had I fifty houses of my own to be painted, the "Averill" alone should be my choice and used.

Yours, very truly, S. J. ALDEN, Druggist.

UNIVERSITY OF CALIFORNIA, BERKELEY, August 16, 1875.

TO THE CALIFORNIA CHEMICAL PAINT CO: Gentlemen—In reply to your note of the 13th inst., I willingly state that the work done by you in painting the exterior of the North Hall or College of Letters is in every way satisfactory, and the appearance of the building since it was painted excites the favorable comment of all who have seen it. As I have had occasion to use the Averill Paint before, my experience has been such that I prefer it to any and all others when properly applied. I am very truly yours, ROBT. E. C. STEARNS.

Sample Card of Colors Sent Free on Application. Be Sure and Write for One and Examine for Yourself before Buying Any Other.

CALIFORNIA CHEMICAL PAINT CO.

117 PINE STREET, SAN FRANCISCO.

P. of H.

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GRANGERS' BUILDING.

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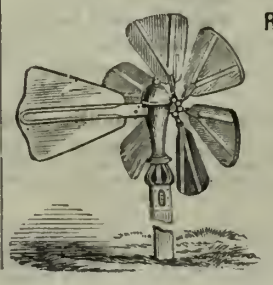
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CENTENNIAL EXPOSITION.

PARK VIEW HOTEL,

Corner 29th and Poplar Streets,

Opposite Fairmount Park,

PHILADELPHIA.

This Extensive First-class Hotel consists of thirty (30) adjoining and communicating buildings, having a frontage on Twenty-ninth Street of 185 feet, and on Poplar Street of 375 feet.

The Buildings are partly pressed brick and partly Serpentine stone, entirely new, having been built for the purpose of handsome private residences, with all the modern conveniences, thus affording more comfortable apartments than perhaps any other hotel in the city. Every room is furnished with new and substantial furniture, consisting of Spring Beds, Carpets, etc., and Seven hundred (700) guests can be comfortably entertained. It will be seen that this Hotel furnishes unusual advantages for families or parties desiring contiguous suites of rooms, a feature which will especially recommend itself to Lodges and other organizations.

The Location of this Hotel is equal, if not superior, to any place in the city. There is easy and rapid access to the Exposition, to and from all the Railroad Depots, as well as to every portion of the city. It is situated on high ground, within 200 yards of and over-looking Fairmount Park, and in the immediate neighborhood of Girard College, Girard Avenue Bridge, Zoological Garden, Fairmount Water works, and Lemon Hill, the latter place being one of the most delightful localities in the Park, where Musical and other Entertainments will be kept up by the city throughout the season.

All places of amusement and interest in any part of the city may be readily reached by the Girard Avenue Line and the Union Passenger Railway, the cars of the latter running directly by the Hotel. All other Passenger Railway Lines at convenient distances.

Lodgings, per Day.....One Dollar.
Breakfast.....Fifty Cents.
Dinner.....Seventy five Cents.
Supper.....Fifty Cents.

No Meals to be paid for unless ordered or taken.

The Houses being built of brick and stone, are far less liable to fire than many of the wooden structures now put up for Centennial purposes. There will be connected with the Hotel Private Watchmen, Fire-proof Safes, Baggage Rooms, etc., for the care and protection of property. The Hotel is supplied with Thirty Bath Rooms, with all modern appliances. Rooms may be secured in advance for any time during the Exposition. The Hotel will be conducted with the special view to accommodate visitors to the Centennial Exposition. Readers of this will please send for illustrated circular, free.

INTERNATIONAL HOTEL

ALL NEWLY FURNISHED,

824 & 826 Kearny St., - San Francisco, Cal.

$1.50 & $2 per day. Free Coach to the House.

H. C. PATRIDGE, - - - Proprietor

(Continued from Page 8.)

religion descend from tens of thonsands of pulpits; the spread of an enlightened public sentiment makes right honorable and wrong perilons, throughout the length and bresdth of the country. It cannot be denied that our good name must he shown npon the background of some of the most villainous transactions known to history. The oorruption which has been shown in high places hss bronght a blush to the face of the nation, hut the condemnation which the wrong-doers have received shows that the national heart is right and the national conscience quick and active.

With just pride in the past and with full confidence in the futnre, the people of the United States enter npon the second century of the natiou's life. We are at peace with all the world. The time is propitious for still further progress along the line of advaucement which we have been pursuing. There is still mnch to be done in the way of promoting the prosperity of some large classes of our population. In the rapid progress of the laat few years there have arisen some pernicious growths. Powers have been confided to the few which belong to the many. Self interest has plumed itself under the guise of the general welfare and is still permitted to exalt itself even to the oppression of the many. It is to the removal of these obstacles to true progress, and to place privileges and powers where they justly belong that the work of the future muat be addressed. There are indications that thia work is now underjway. The grand industrial claasea of our population are advancing in mutual knowledge and in the intelligence which pertains to their success. The future is full of promise that the great masses of our people will secure those reforms which their prosperity demands, and that their voice will be more clearly heard and more generally reapected in the halls whence come the laws. It is the advance of right, and ita progress ia most hopeful for the republic. The end is aure, for

"The eternal step of progress beats
To that great anthem, calm and slow,
Which God repeats."

California.

While the nation is celebrating ita one huudredth anniversary and rejoicing at the wonderful progress it has made during these years, the different States which compose the American Union can each congratulate themselvea that they have contributed their share to the general prosperity. Those which are aituated west of the Rocky mountains, while they cannot, of course, claim to have assisted in gaining the independence of the nation, are none the lesa deserving of praise since they have contributed in a marked degree to maintain the prosperity of the peoplo of the United States for nearly a quarter of a century. The boundleas agricultural and mineral resources of the Pacific States and Territories, the products of which increase from year to year, are objects of wealth, not ouly to individuals and the States themselvea, but to the nation at large. As real producers, the Pacific States are ahead of all, as their wealth is the product of the ground itself.

California—the word is a aynonyme for boundless riches. The "Golden State" is the term by which she is known the length and breadth of the land. The fabulous suma taken from her mines, the marveloua yields of her boundless farms, the variety and abundance of her mineral and agricultural products, have made her famous throughout the world. In beauty and grandeur of scenery she is not excelled, and in variety of soil and climate none surpass her. .

The people of the State, whose energy and activity have been the meana of ao soon placing California in the prond position ahe occupies, have causes of congratulation to-day aside from those they feel in the prosperity of the nation. Coming to thia ooast a band of hardy pioneers beyond the confines of civilization and refinement, they battled succesafully with the difficultiea before them, and have snceeeded in building up a S ate in which not only they bnt the people of the United States feel a just pride. With all its natural advantages of soil and climate, theae effects would not have been prodnced without the energy, perseverance and intelligence which are the characteristics of the American citizen.

Rapid as haa been the growth of the State in material prosperity, her boundless wealth of resonrces has been hardly touched. California contains millions of acres as yet undeveloped, and milliona of treasure yet to be dug up. The domain comprises 188,000 square milea of territory, and, estimating the population at only 600,000, it coutains less than four souls to the square mile, while it is capab.e of sustaining a hundred. It was eatimated that the increase of popnlation last year was about 100,000, and the immigrants continue to pour in at the rate of about 6,000 monthly. But there is plenty of room. When we remember that California contains an area nearly three times as great aa the six New England States—greater than all the Middle States with Maryland and West Virginia added—and greater than England, Scotland and Walea combined by 70,000 sqnare miles, we begin to have some conception of the grandenr of our domain; within it about 140 States the size of Rhode Island could be placed.

The capacity of this vast area for sustaining population is undonbted. Within the boundaries of the State there are, according to statistics, 3,366,716 acres of cultivated land as well as over 6,000,000 acres enclosed. From an srea of over 2,000,000 acres we have an annual product of 29,000,000 bushels of wheat, and beside this we have a yield of about 11,000,000 bushels of barley on an average, per annum. The official records for 1874 showed that with a population of about 726,000 we exhibited a productive capacity of nearly $1,000 per capita. The condition ot the savings banks is a good indication of the prosperity ot the people. The average balance to the credit of each depositor in the 27 savings banks in this State, on the 31st of December last, was nearly $800,, which is largely in excess of that of any other State in the Union or country on the globe. In about eight years our savings banks have paid their depositors in dividends over $34,000,000. These figures show a material prosperity which admits of no denial.

A brief glance at what California has done and is doing for her own welfare and that of the Nation will be interesting at this time. Although she is only in her 25th year, a showing of products and improvements is made almost equaling the hundred years' advancement of other States. We exported last year 4,199,652 centals of wheat and 233,629 barrels of flour. Reducing wheat to flour our exports of that great food staple alone amounted to 1,633,513 barrels. The total productа of the State for 1875 were valued at $124,000,000.



"ONE HUNDRED YEARS AGO"

The wheat yield since 1856 is estimated at 200,000 000 centals. The wool clip of 1875 was 44,000,000 pounds, and that for 23 years, 300,000,000 pounds. The quicksilver production last year waa very large, and was valued at about $2,000,000. It ia estimated that the total prodnct of this article in California has been 64,748,893 pounds. The wine product of the State last year waa 10,000,000 gallons; the receipts of lumber, 305,000,000 feet; the value of mannfactures, $63,000,000; the foreign importa of merchandise, $29,434,000; exports, toreign and domestic, $45,000,000; imports, foreign and domeatic, $81,721,245. Our exports of treasure—gold and silver—in 1875, amounted to $73,465,000, or nearly $15,000,000 more than in the previous year.

Of bullion the coast produced, in 1875, $80,889,037—the largest yield yet. Of this, California produced $17,753,151, being ahead of all others, except Nevada, in thia class of producta. Thia State held the lead in bullion production until lately, and now Nevada is ahead. It must be remembered, however, that the mines of the latter State were developed to a great extent by California capital, and, in reality, are now owned principally in this State. From 1865 to 1875 the combined product of the two States has been $478,181,520, of which California produced $237,253,151. Nevada is, however, exclusively a mining State, while the majority of the population in California are now engaged in agricultural pursuits. California mining is, however, by no means on the wane, although the surface deposits have been worked out but quite extensive operations are being carried on all over the State. The gravel mines are operated on a scale ot magnitude before unheard of, and their yield is in proportion. It takes capital to work these mines, as well as skill and intelligence. In thia particnlar class of mining we have but just begun work and it will be continued on a still more extensive acale for years and years to oome. The quartz mines, too, of which there are thousands within our boundaries yet undeveloped, only need more capital to make them yield up their hidden treasures. The assessed value in the 10 hydraulic mining connties of California in 1874-75 was $32,307,523.

To San Francisco, the metropolis of this coast, and the seat of the main manufactnring industries, we must look for the progress in manufacture before. A few items from the assessor's report of last year will give an idea of the improvements ot this character which have been bnilt up in the city.

There are in the city three artificial stone manufactories, turning out yearly products valned at $137,000; three axle grease factories, producing $91,000; five barrel factories, employing 215 men; five bed-spring factories, annnally producing $141,000; five bedstead factories, employing 725 men, aggregate value of products $925,000; two bellows factories, aggregate value of products $27,000; six bedding factories, producing $92,500; five billiard table factories, turning out goods valued at $156,000; twenty boot and shoe factories, employing 2,000 persons, aggregate valne of products $2,793,000; two borax works, aggregate value of manufactories $620,000; ten box factories, employing 372 men and prodncing $980,000 annually; eleven brass fonndries, employing 273 men, value of manufactories $1,055,000; breweries, 40, value of manufactures $2,000,000; broom factories, 10, value $200,000; brnsh factories, 3, value $50,000; candle factories, 2, product $425,000; clothing factories, 8, value $730,000; cigar factories, 120, men employed 9,000, cigars made annually, 95,000,000; chemical works, 5, product $425,000; carriage factories employ 400 men, and products are worth $837,000; coffee mills, 10, value $1,102,000; rope-walks, 3, value $975,000; distilleries, 6, product $1,647,000; flour mills, 8, producing 446,000 barrels annually; foundries, 16, employing 123 men; fur factories, 5, product $245,000; furni ure factories, 20, product $1,636,000; glaaa works, 2, product $270,000; glove factories, 3, product $130,000; glue factory, one, product $325,000; hat factories, 15, product $328,000; hose and belting factories, three, product $114,000; jewelry manufactories, 30, prodnct $827,000; lead and shot factory, one, product $1,000,000; macaroni factoriea, three, product $120,000; marble works, 21, product $860,000; match factories, six, product $260,000; malt houses, five, product $300,000; oaknm factory, one, product $25,000; fruit preserving works, four, product $850,000; powder works, two, prodnct $560,000; rolling mill, one, employs 300 men, product $750,000; silk factories, two, product, $300,000; aaw factory, one, product $900,000; saah, door and blind factories, 10, product $2 500,000; silverware factories, four, product $252,000; shirt factories, eight, product $798,000; slipper factories, 18, product $200 000; soap factories, 17, product $513,000; tanneries, 33, product, $985,000; telegraph instrument factory, one, product $75,000; tool factoriea, six, product $210,500; trunk factories, six, product $240,000; type fonndries, two, product $55 000; vinegar factories, eight, product $122,000; wiudmill factories, four, product $57,000; woodenware factories, four, product $220,000; wooleu mills, two, men and women employed, 900, wool used, 3,150,000 pounds, product $2,200,000; watch factory, one, number of watches made 15,000; yeast powder works, three, product $110,000. Assessed valne of propeity in the city in 1875, $126,350,255; improvements, $45,558,161; personal property, $148.659,785; total assessed value in the city, $316,566,205. Population, 250,000.

These factoriea are only those of the metropolis of the State. Enough have been referred to, however, to give those outside our boundaries an idea of the manufacturing progress of California.

The interior of the State as well as the city is in a prosperous condition, and Californians may well congratnlate themselves on living in the most progressive State in the Union. With these feelings, while they rejoice as all good citizens should during the coming holidays at the achievements of the nation in its hundred years, they also feel a just pride in the advancement of their own State in its twenty-five years.

Then and Now.

Comparisons are not always odious, the old saying "to the contrary notwithstanding." When anybody compares something of his own with something else of his own it is all right; it is only when comparisons sre made between things belonging to different parties that they become "odious." Surely in this Centennial year no one can find fault with Uncle Sam if he compares his possessions when he was young and poor with what he has now when he is of age and has become rich. His farm is now a pretty big one and his tenants numerous; hut t is not yet all fenced or cultivated, and he hss room for many more under hia protecting eye.

Just think of how the country has grown since the "original thirteen" started ont on their own hook and left their maternal parent fluttering and scolding like an old hen whose brood of ducka first takea to the water. It waa a bold venture and fraught with many dangers, hnt patience, perseverance and energy will always accomplish wondera, as they did in this case.

In 1783 the territory ceded by Great Britain was composed of the couutry east of the Missiaaippi river and north ot Florida, having an area of 815,615 square miles. This whole territory was not much larger than Alaska, which we bought a few years ago without thinking it much of an accession. Within these 815,615 square miles were the original thirteen Statea of the American Union, laid out as they are shown on the accompanying map. They were as follows: New York, Massachusetts, New Hampshire, Rhode Island, Connecticut, Pennsylvania, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina and Georgia.

Compare thia small though noble list of Statea with the country as it stands to-day. The greatest length of the United States, from the Atlantic to the Pacific on the forty-second parallel, is 2,768 milea, and the greatest breadth, from Point Isabel in Texas to the north boundary near Pembina, ia 1,601 milea. The northern frontier is upward of 3,350 miles long; the Mexican 1,500 miles. The ocean coast, inclnding the larger indentations, is estimated at 22,609 miles, of which 6,861 are on the Atlantic, 3,461 on the Gulf of Mexico, 2,281 on the Pacific, 8,000 miles including the baya and islands on the border of Alaska, and 2,000 miles on the Arctic sea. The total area of the United States waa reported at the census of 1870 to embrace 3,603,844 square miles, inclnsive of the territory of Rusaian America, purchased from the Russian government by treaty of June 20th, 1867, and annexed to the Republic October 28th, 1867, under the name of Alaska. The area of the Unired States excluding Alaska is equal to 1,942 millions of acres, about one-half of which are public lands. At the census of 1870 the arable land under cultivation waa found to be 189,000,000 of acres, or less than one-tenth of the total area. The two black squares shown on the map give the relative area of the United Statos at the time of the Declaration of Independence and at the time of the celebration of the Nation's Centenuial. A glance at them will show more clearly how much the country has grown than any array of figures we could aet before our readera.

At the census of 1790 the total population of the United States, white and colored, was 3,929,321. At the consus of 1870 it waa 38,588,371. At the first census in 1790 there were seventeen States, the largest of which was Virginia, with a population of 747,610, and the smallest Tennessee, with a popnlation of 35,691. In 1870 thore were 37 States and 10 Territoriea. It ia stated, on a calculation based on the census from 1800 to 1870, that on June 1st, 1874, the population of the United States waa 43,167,000—being an increase of 5,500,000 over the census of 1870. The eatimate for Juue 1st, 1875, on the same authority, is 44,384,000. For June 1st, 1876, it is 45,627,000, while in 1880, the year of the next decennial census, it is calculated that the United States will have 50,850,000 inhabitants.

If the population of the country should continuo to double itself as many timea in the next ceutury aa in the last we should have a census covering 500,000,000 souls—or about a number equal to one-half of the present population of the globe. There is little danger of Uncle Sam extending hia farm as rapidly in the future as in the last eentury, for to do it he would require all the land on thia hemiaphere, from Greenland to Patagonia, and a million square milen more.

The annual rainfall along the borders of Puget sound, to the aouthward of Seattle, is from 70 to 100 inches. At Neah bay it often exceeds 120 inches.

Breeders' Directory.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLIARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

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EDWARD FRISBIE, on line of Cal. P. R. R., near Vallejo, Pure Bred Leicester Sheep For Sale.

GARNIER BROS., Encino Ranch, Los Angeles Cal., breeders of pure French, Spanish, and Saxon Merino Sheep. Price, from $25 to $50, each.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co. Cal., breeder of Pure-Blooded French Merino Sheep

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

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M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

T. A. WILSON, Grayson, Stanislaus county, Cal. Breeder and Importer of Spanish Merino Sheep.

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M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

M. FALLON, Cor. Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Fowls for Hatching from Pure Bred Fowls.

GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W. H GROVES, Stockton, Cal. Eggs for sale from Choice Pedigree and Selected Light Brahmas, White and Brown Leghorns. For prices and description address as above with stamp.

Live Stock Notices.



Pure Blooded French Merino Rams

And 100 Choice Young Ewes

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda county, Cal., near Niles Station, on the Western and Southern Pacific railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proven to be the heaviest shearers in the world.

☞NEW MILCH DURHAM COWS FOR SALE.

THOROUGHBRED SHEEP FOR SALE.

The undersigned offers for sale his entire herd, consisting of 150 head of Thoroughbred Spanish Merinos, Bucks and Ewes. The Sheep are good, and in good condition, and will be sold reasonable. For further particulars, enquire of

A. C. PAULSELL,
Stockton, Cal.

THOROUGHBRED SHORT-HORN CATTLE FOR SALE.

The undersigned offers his entire herd of Thoroughbred Cattle for sale on very reasonable terms. Also, one fine Graded Cattle.

JOHN BREWSTER,
Galt, Sacramento Co., Cal

FOR SALE,

AYRSHIRE BULL—4 years old.

ENQUIRE OF

A. B. ROWLEY, Mayfield, Santa Clara Co.

STRAW BURNING ATTACHMENT.

KING'S PATENT.

The Only Successful Burner Yet Introduced.

Having secured the exclusive right to manufacture and attach to engines J. R. KING'S P STRAW BURNING ATTACHMENT, I respectfully invite the attention of the threshers to notice why it is superior to all other Straw Burning Engines. They are so constructed as to burn Wood, Coal or Straw, and require one-third less fuel than any other Burner; can be changed to burn either in five minutes, thus avoiding the loss of time, and favoring threshers in localities where it is necessary to burn Coal or Wood. It is easy to keep up the necessary amount of steam with Straw as fuel, and does not require an experienced person to fire it. Boys with but little instruction have fired them the whole season, and in many cases the engineer has done it and attended to his engine. They have given entire satisfaction in every case.

MODESTO, October 9th, 1875.

MR. J. R. KING—*Dear Sir:*—We have used your Attachment on our Automatic Hoadley Engine the past two seasons; it furnishes all the power necessary to run our large Pitts Separator with a Jackson Feeder attached; it more than gave satisfaction to all the farmers for whom we threshed; it required but little straw to furnish the necessary amount of steam; our engineer had a boy to fire it, and he attended to the Separator and Engine; it was much safer than a wood burner, for when we wished to stop or move, all that was necessary was to close the door and everything was perfectly safe. We used no spark arrest, as there were no sparks to arrest. It was a perfect success in every particular. Yours, etc., BENTLY & YOUNG.

LINDEN, October 16th, 1875.

MR. J. R. KING—*Dear Sir:*—Having used one of your Straw Burner Attachments on my Ames Engine (wood burner) No. 3, I feel it my duty to state that it proved to be far more than I expected. It furnishes sufficient power to operate my large Pitts Separator. I have seen several regular Straw Burning Engines in operation, and would not exchange for any small consideration. I used it all the season without the least difficulty and know it is a success. Yours, etc., J. H. DUNCAN.

The following parties used my Attachment on their Wood Burning Engines last season: Covert & May, Grayson, Stanislaus county; W. H. Oilmore, Stockton, on an old style Hoadley Engine, 8x12 cylinder; Morse Bros., Modesto, Stanislaus county; C. F. Leavensworth, Modesto, Stanislaus county, old style Hoadley, 8x12 cylinder. On the 13th of May, at Stockton, in a test of Straw Burning Engines, a very lively competition ensued between the different styles and patterns of machinery, particularly between the two Straw Burning Engines. My Attachment claims superiority and preference over all others on account of its adaptability to all styles and patterns of wood or coal burning engines, to which it can be fitted. It has a conical feed tube or funnel, through which the straw is fed to the fire box, the interior arrangement of which is also peculiar, containing a half set of coarse grate bars standing six to ten inches high, and adjustable to any hight desired and sloping toward the front. In front of the tubes a circular concave plate is so arranged as to cause the draft to first strike the top of the boiler and then draw down behind the plate through the small flues. Engines rigged with this burner are absolutely safe from sparks, there being no necessity even for a spark arrester on the smoke stack. To show how rapidly it makes steam we add the following record of its performance on Saturday, attached to a Gaar, Scott & Co.'s portable engine: The fire was lighted with the boiler partially full of cold water, (two gauges cold,) and in 25 minutes the whistle was blown, the gauge showing a pressure of 10 pounds of steam; in 30 minutes, 20 pounds; in 32 minutes, 30 pounds; in 34 minutes, 40 pounds; in 35 minutes, 45 pounds; in 37 minutes, 50 pounds; in 38 minutes, 55 pounds; in 40 minutes, 60 pounds; in 42 minutes, 65 pounds; in 45 minutes, 70 pounds; in 47 minutes, 80 pounds; in 49 minutes, 90 pounds; in 50 minutes, 100 pounds. On reaching a pressure of 100 pounds the harley mill, to which it was attached by a belt, was started and run to its full capacity, grinding at the rate of two tons per hour; during this time steam raised to 130 pounds, pumping more than a full supply and frequently blowing water out of the boiler; then stopped firing until the steam gauge indicated 80 pounds; commenced firing again and got 140 pounds in 25 minutes; water raised in boiler to three gauges; mill run to full capacity all the time; this was a Gaar, Scott Engine, cylinder 7x13 inches; boiler, diameter, 29 inches; 27 flues, 2½ inches diameter, and 54 inches long; fire box, length, two feet eight inches.

The Attachment can be seen at H. C. Shaw Plow Co.'s Warehouse, Stockton, and at their Branch Store at Cressey Station, Merced county. Byron Jackson, Woodland, Patentee of Self Feeder, agent for Solano, Yolo and Colusa counties.

All orders addressed to J. R. King, Patentee, in care of the Globe Iron Works, or H. C. Shaw Plow Company, Stockton, will receive prompt attention. Send for Circulars.

JOHN CAINE, Proprietor Globe Iron Works,
STOCKTON, CAL.

GRANGERS' BUSINESS ASSOCIATION,

Incorporated Feb. 10th, 1875. Capital Stock, $1,000,000.

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DANIEL INMAN, (PRESIDENT).
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AMOS ADAMS, (SECRETARY).
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I. C. STEELE.
O. HUBBELL. D. CAMPBELL.
THOS. FLINT.
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Grangers' Building, - - - - 106 Davis Street, S. F.

Consignments of Grain, Wool, Dairy Products, Fruit, Vegetables, and other Produce solicited, and advances made on the same. Orders for Grain and Wool Sacks, Produce, Merchandise, Farm Implements, Wagons, Etc., solicited and promptly attended to.

We do a strictly Commission Business, and place our rates of Commission upon a fair legitimate basis that will enable the country at large to transact business through us to their entire satisfaction.

Consignments to be marked Grangers' Business Association, San Francisco. Stencils for marking will be furnished free on application.

DANIEL INMAN, Manager.

JOHN H. GOVE'S

CENTENNIAL HAY PRESS.

Farmers and Hay Pressers will find it to their advantage to examine this Press before buying any other. It is built compact, combining lightness for moving with the greatest power and durability in its working parts, capable of making the average 250 pound bale, more or less, baling 10 to 15 tons per day, with three men and a pair of horses, they traveling only 36 feet to operate it. No excavations required for this Press. This is the original Gove Press improved, after an experience of building Presses in the States the past 15 years, where they gave the best of satisfaction. **Price, No. 1, $250.**

Manufactured and for sale, or built to order, at the EUREKA GRAIN STORAGE WAREHOUSE, by **JOHN H. GOVE** or **ANDREW J. GOVE,** Box 1122.

A Liberal Discount to the trade. For Sale by all Agricultural Dealers.

EXTRAS! | EXTRAS!!

Headquarters for Extras for the following Harvesting Machines:

CLIPPER, WOOD'S EAGLE, RUSSELL'S AND WORLD MOWERS AND REAPERS, DAYTON AND CHICAGO

PITTS SEPARATORS AND HORSE POWERS, HAINES' AND CASE HEADERS.

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THOROUGHBRED SPANISH MERINOS.



Sixty one and two year old Spanish Merino Rams For Sale, also 100 Ewes and Lambs, all California bred, from stock imported from Vermont, and as good as any on this Coast. Prices to suit the times. Address, B. F. WATKINS,
Santa Clara, Cal.

ALEX. BUSWELL,
BOOK BINDER, PAPER RULER
AND BLANK BOOK MANUFACTURER,
521 Clay Street, S. F.
Blank Books Ruled, Printed, and Bound to Order

REMINGTON SEWING MACHINES.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

REMINGTON SEWING MACHINE CO.,
629 Market st., under Palace Hotel, S. F.
AGENTS WANTED FOR CITY AND COUNTRY.

Grangers' Bank of California,

42 California Street,

SAN FRANCISCO.

Authorized Capital, $5,000,000.

OFFICERS:

PRESIDENT.....GILBERT W. COLBY.
MANAGING DIRECTOR.....C. J. CRESSEY.
CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

The Bank was opened on the first of August, 1874, for the transaction of general banking business.

California Farmers' Mutual Fire Insurance Association.

No. 38 California Street, Grangers' Building.
CAPITAL, $200,000, GOLD.

OFFICERS:

J. D. BLANCHAR.....PRESIDENT
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A. W. THOMPSON.....ATTORNEY
FERD. K. RULE.....SECRETARY

TRUSTEES:

J. D. BLANCHAR.....S. F.
G. P. KELLOGG.....Salinas
I. G. GARDNER.....S. F.
CHAS. LAIRD.....Salinas
URIAH WOOD..San Benito
A. B. NALLY....Santa Rosa
A. W. THOMPSON.....S. F.
A. D. LOGAN.....Colusa
I. C. STEELE.....San Mateo
G. W. COLBY.....Butte Co
A. WOLF.....Stockton
C. J. CRESSEY.....Oakland
J. C. MERRYFIELD..Dixon
E. W. STEELE, S. L. Obispo
C. S. ABBOTT.....Monterey
DR. T. FLINT.....Hollister

Statement, December 31st, 1875.

TOTAL RISKS WRITTEN	$3,845,189.00
TOTAL PREMIUMS	79,301.72
LOSSES PAID	821.00
ASSETS DEC. 31st, 1875	170,907.41

☞ Farm Property insured at actual cost on the Mutual Plan. Other desirable property insured, and rated according to merit.



NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

THE LAMB KNITTING MACHINE

Is the Only Machine that can Knit all sizes of work, and narrow and widen it; that can shape and complete, without hand-finishing,

Seamless Hosiery, Gloves and Mittens, or knit them in all sizes; or knit ribbed, double and fancy stitches for Underwear, Jackets, Shawls, Scarfs, etc. It knits over 25 different kinds of garments. Over 100 per cent. profit in manufacturing knit goods. Send for illustrated circular. Address,

Lamb Knitting Machine Co.,
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UNION BOX FACTORY,

GEO. W. SWAN & CO.,

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ATTENTION, FRUIT GROWERS!

GRAPE BOXES, RAISIN BOXES, FIG DRUMS, ONE-POUND BLACKBERRY BOXES and PICKING BASKETS.

WAY UP BOXES. WAY DOWN PRICES.

LEVI STRAUSS & CO.,



Patent Riveted Clothing,

14 & 16 Battery St., San Francisco.

These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

Patented May 12, 1873.

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The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

LADIES' DEPARTMENT.—Ladies will be admitted for instruction in all the Departments of the College.

TELEGRAPHIC DEPARTMENT.—In this Department young men and young ladies are practically and thoroughly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars, E. P. HEALD, President Business College, San Francisco, Cal.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of Lea & Perrins' Sauce, which are calculated to deceive the Public, LEA & PERRINS have adopted A New Label, bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of Worcestershire Sauce, after this date, and without which none is genuine.

November 1874.

**** This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

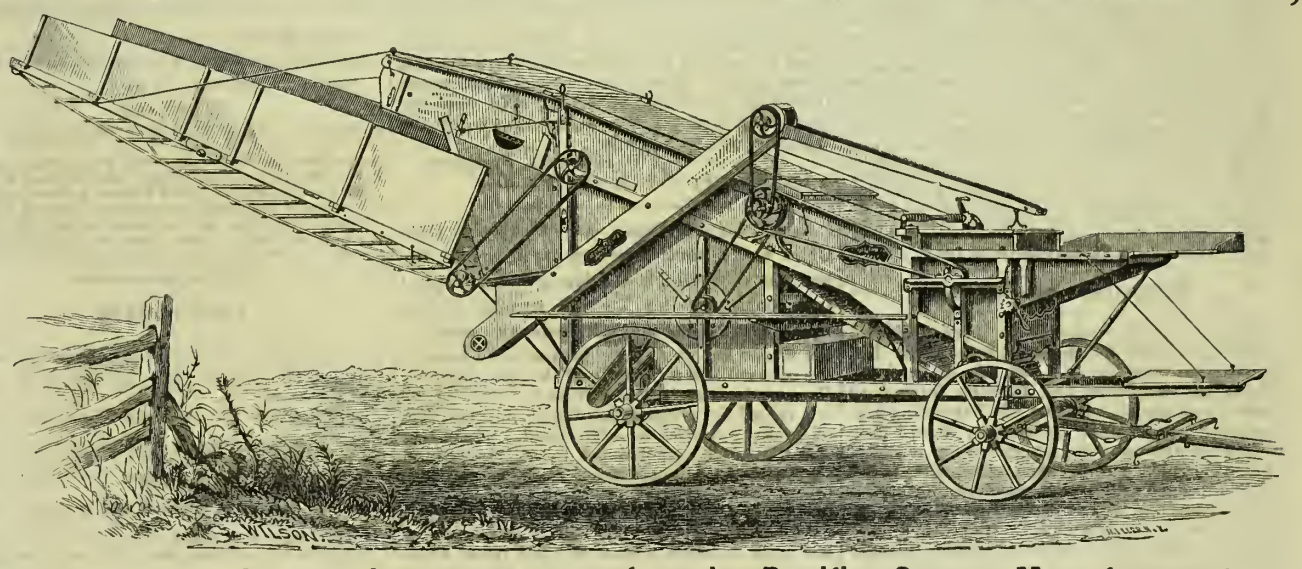
Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco.

Davis & Sutton, Commission Merchants,

For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier Tradesmen's National Bank, N. Y.; Ellwanger & Barry Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

SWEEPSTAKES THRESHER,



With all the Latest Improvements for the Pacific Coast, Manufactured for FRANK BROS. & CO.

We will warrant every Machine sold to do Better, Cleaner and Faster Work than any other Thresher on the Coast.

All who are in want of Threshers should not fail to call and see the improvements that have been put on the Sweepstakes for the Harvest of 16 . We also have the Cary Power, to which we would call special attention.

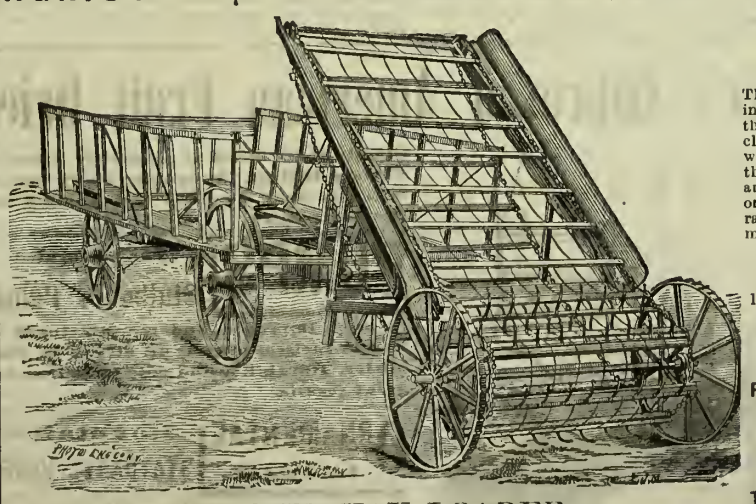
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IMPORTERS AND DEALERS IN

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FOUSTS' HAY LOADER.

FOUSTS' HAY LOADER.

The only Hay Loader in successful use in the world. This Machine loads from the winrow, thus saving the labor of cocking, and will elevate hay on to the wagon at the rate of a ton in three minutes.



Hay Loader in Operation.

HORSE HAY RAKES, DOUBLE HARPOON HORSE HAY FORKS, at prices paid other dealers for the Single Harpoon.

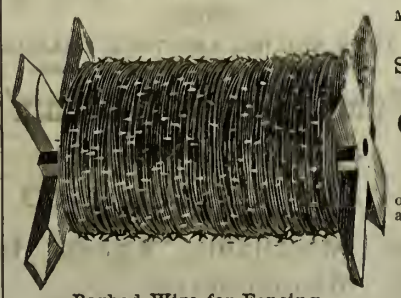
Excelsior Mowers, Meadow Lark Mowers, Woods' Mowers,

FISH BROS.' PACIFIC WAGONS, FISH BROS.' SPRING WAGONS,

Barbed Wire for Fencing.

We also furnish the Barbs separate from the Wire. They can be attached to any Wire Fence, anywhere.

The Buckeye Riding or Walking Corn Cultivator,



Barbed Wire for Fencing.

MORE SOLD EVERY YEAR THAN THE COMBINED SALES OF ALL OTHERS.

STRAW and FEED CUTTERS,

Wine and Cider Mills,

Gorham Seed Sowers and Cultivators Combined,

PLOWS and HARROWS.

Everything belonging to the Implement trade. We import our own goods; have no local agent. Parties sending direct to us save a large commission. Address,

KELLER & CO.,

43, 45, and 47 J Street, Sacramento, Cal.



Buckeye Corn Cultivator.

Queries and Replies.

Disease on Apricot Roots.

Editors Press:—Can and will you tell me what to do for my apricot trees to save them? This spring I noticed one of them started to grow and then went back. I examined it and saw that it was wet enough. It finally died. A day or two ago I dug it up and found that the roots just under the ground, close to where it was budded, were grown over with a sort of excrescence, similar to such as grows on oaks, on the body of the tree, and like the knurls on maples. It is a small tree, four years old, yet there were three bunches as large as one's fist. I cut one open, but could not find any insect. As there is another tree near it, one side of which has commenced dying in the same way (and it is full of fruit), I examined it, and find like bunches on it. I chipped some of them off with a chisel. The trees stand in a rather heavy sandy, loamy soil. There was a pile of ashes between the trees. Do you think it had anything to do with the matter? Please tell me the cause and cure, if there be any.—S. Whitmore, San Diego.

We are unable to give any light on this particular case. Have any of our readers similar experience to Mr. W.? If so, what has it taught them?

Soap for Scab.

Editors Press:—I think I have found a new cure for the scab on sheep, as I have not seen it in the Press. It is common soft soap. First scratch the scab with some small nails driven through a board and sharpened, then apply the soap with a brush. Good warm soapsuds is a good dip.—A. W. Root, Tipton, Cal.

The Drying Principle.

Editors Press:—Your Santa Rosa correspondent, "Inquirer," who challenges a discussion of the best scientific plan for fruit drying, can find the "Alden process," to which he refers sneeringly, fully described in our circulars, a copy of which will be mailed to him upon application. We shall not here attempt to enter into a discussion of the difference between the Alden and other driers (several of which are clear infringements), but beg to invite "Inquirer" to a careful perusal of our circular and of our "caution to purchasers of fruit driers," on page 396 of your paper of the 17th inst. The "higher law," by which Mr. Alden "holds his process," will be explained by the U. S. Court in the case now on trial in Michigan, and we apprehend "Inquirer" will not discover in the coming decision the kind of "light" he apparently most desires.—Alden Fruit Preserving Co. of Cal.

Notes from Sacramento.

Editors Press:—Again we have fine, cool breezes, as if the furnace heat of summer had ended; but from the life and stir of business about the hardware and farming implement stores on J street, we know the harvesting season is just beginning. It is really astonishing to see the amount being expended for headers, steam engines, sulky rakes, etc. One house claims to have sold over 80 headers and reapers this season, and will probably run sales up to 100 before the season closes. There is a large area of counties that seems to consider this the center or headquarters for farming machinery.

Rotary Plow.

Last Saturday morning Mr. Underwood, inventor of a new rotary gang plow, invited all interested to witness the working of his gang plow on land at corner of Tenth and W streets. Quite an assembly of farmers and dealers was present. The land was mixed sand and loam, light stubble with small stand of alfalfa. The plow cut two furrows, 12 inches wide and from four to eight inches deep, and was drawn by two large horses. The plowing is done by steel wheels, three feet in diameter. Mr. Underwood claims very many points of advantage from the use of this plow over the ordinary gang, and seems ready to convince all by actual testing. Those witnessing its workings were mostly well pleased as to its working in moist, soft land, but not ready to insure it in all kinds of soil. The patentee seems to be a full grown, live farmer from the prairies, and proposes to show the truth of all he claims, and when this is done there will be a revolution in the plow. Our dealers are very cautious, not willing to handle any implement before it is proven a success. The plow will probably be manufactured somewhere on this coast.

Fruit driers are the next article in urgent demand by almost all the fruit growers—efficiency and cheapness the great desideratum—and almost every day brings some new claimant for excellence. They, like the plows, must show their merits, and also publish to the world what they have shown. Merit hidden from the public will not pay the inventors or serve the public. C.

Sacramento, June 20th, 1876.

A Fly Antidote.

It is pleasant to have an antidote which is exceedingly agreeable to apply. For instance, we read that the Rev. George Meares Drought, writing from Ireland says: "For three years I have lived in a town, and during that time my sitting room has been free from flies, three or four only walking about my breakfast table, while all my neighbor's rooms were crowded. I often congratulated myself on my escape, but never knew the reason of it until two days ago. I then had occasion to move my goods to another house, while I remained for two days longer. Among other things moved were two boxes of geraniums and calceolarias, which stood in my window, the window being always open to the full extent, top and bottom. The boxes were not gone half an hour before my room was as full of flies as those around me. This, to me, is a new discovery, and perhaps it may serve to encourage others in that which is always a source of pleasure, and which now proves also to be a source of comfort, viz: window gardening." We think the experiment worth making, even if it does not drive away a single fly.

The President's Centennial Proclamation.

The following proclamation has been issued June 26th, by the President of the United States:

This is the Centennial anniversary of the day on which the people of the United States declared their right to separate and assume equal stations among the powers of the earth. It seems to demand exceptional observances. The founders of the Government at its birth and in its feebleness, invoked the blessings of Divine Providence, and the 13 colonies' 3,000,000 people have expanded into a nation in strength and numbers, commanding a position which then was asserted and for which fervent prayers were then offered. It seems fitting that on the occurrence of the hundredth anniversary of our existence as a nation, a grateful acknowledgement should be made to Almighty God for the protection vouchsafed our beloved country. I therefore invite the good people of the United States, on the approaching fourth day of July, in addition to the usual observances with which they are accustomed to greet the return of the day, further, in such a manner and at such times as in their respective localities and religious belief may be most convenient, to make it manifest by some public, religious and devout thanksgiving to Almighty God for the blessings which have been bestowed upon us as a nation during the centennary of our existence, and humbly to invoke the continuance of His favor and protection.

In witness whereof I have hereunto set my hand and caused the seal of the United States to be affixed. Done at the city of Washington this 26th day of June, A. D., 1876, the one hundredth year of the independence of the United States of America.

U. S. Grant, President.

Hamilton Fish, Secretary of State.

Semi-Tropical Fruit Co.—We receive from Chas. E. Hutton, secretary, a report of the business of Southern California Semi-Tropical fruit company, for the six months ending April 30th: "The superintendent reports that the season has been very favorable for trees in the orchard and nursery, and the grain planted. Having the time to spare from the orchard, he has rented 50 acres adjoining it, and the crop of grain promises a large yield. There has been but little opportunity to sell trees from the nursery. On account of the great demand for money, trees have been put upon the market at any price they would bring. The sales have amounted to $66.50." The company now has in its orchards a total of 5,331 trees: oranges, lemons, limes, almonds and walnuts. It has in its nursery 10,392 trees: oranges, lemons and limes. The total number of acres under cultivation is 150.

The Fourth in Stockton.—The citizens of Stockton have arranged a celebration which for variety and novelty will be hard to beat. On Monday there will be a general decoration, with illumination and torchlight procession in the evening. On Tuesday there will be a grand parade under Grand Marshal J. D. Peters. Literary exercises will be held at the corner of Commerce and Church streets. Hon. T. B. Buck is President of the Day, L. B. Noble is reader and Hon. Thos. Fitch orator. In the evening there will be a display of fireworks. On Wednesday there will be a grotesque parade, a display of the fire department and a balloon ascension.

Woodward's Gardens embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

Patents & Inventions.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

From Official Reports for the Mining and Scientific Press, DEWEY & CO., Publishers and U. S. and Foreign Patent Agents.]

By Special Dispatch, Dated Washington, D. C., June 27th, 1876.

For Week Ending June 20th, 1876.

Carburetors.—James T. Stewart, Los Angeles, Cal.

Hollow Partition Brick.—Jules Borie, Oakland, Cal.

Process and Apparatus for Drying Fruit.—William Brown, S. F.

Endless Traction Railways.—Andrew S. Hallidie, S. F.

Machines for Sawing Shingles.—Frank A. Huntington, S. F.

Construction of Wooden Tanks.—Edward M. Morgan, S. F.

Beer Faucets.—Thomas C. Perkins, Brighton, Cal.

Mechanical Movements.—Robert Swarbrick, Oakland, Cal.

Underground Tubes for Propulsion of Cars. Andrew S. Hallidie, S. F.

Trademark.

Liniment.—John Holloway, Wadsworth, Nev.

——*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

Note.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

Fairs in 1876.

The Centennial (World's Fair), Philadelphia, Pa., from May 10th to continue till autumn.

Mechanics' Institute Industrial Fair, S. F., beginning August 8th.

California State Fair, Sacramento, from Sept. 18th to Sept. 23d.

The Southern District Agricultural Society, from Oct. 5th to Oct. 14th.

Nevada State Fair, Reno, Nev., from Sept. 11th to Sept. 16th.

Sonoma and Marin District Fair, from Oct. 9th to Oct. 16th.

Oregon State Fair, Salem, from Oct. 9th to Oct. 16th.

Northern District Fair, Marysville, from Oct. 9th to Oct. 16th.

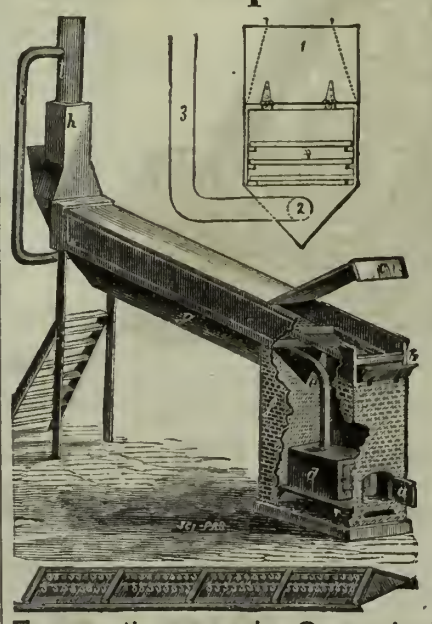
Good Printing Ink.—We prefer Chas. Eneu Johnson's printing inks, having used them on this paper for the past four years. H. S. Crocker & Co., printers, stationers, blank book and paper dealers, are Johnson's S. F. agents.—Dewey & Co., Publishers.

The Pacific Rural Press—a paper chock-full of practical good sense and good things—urges that a day for tree-planting be set apart by every Grange in the State, and suggests the Patron's anniversary day, December 4th, as a suitable one to inaugurate this good work all over California.—Santa Barbara Press, Mar. 25.

Sheep Range Wanted,

To Lease for two or five years; must give ample feed and water for 1,500 sheep, and be near shipping point; preferred on railroad between Oakland and Stockton, but might do if in Santa Clara, Contra Costa, Solano, Napa, Sonoma or Marin counties, and near a landing; would like a small part fit for raising hay; if adjoining fenced land that could be leased for raising swine, so much the better; state lowest terms, also whether any sheep are for sale on the range, of what kind and price. Address, SHEEP, Lock Box 736, San Francisco.

Keeler's Improved American Fruit Drier



Stands at the head as a Family, Farm or Factory DRIER. It enables every man to boss his own business and produce unequaled results.

PUMPS | The Celebrated Sluthour Pumps

As now Improved and manufactured in San Francisco surpass all others in Simplicity, Durability and ease of action and great results.

ORNAMENTAL GOODS. | Fountains, STATUARY, VASES, Aquariums, Rustic Chairs and Settees.

IRON RAILING AND TREE GUARDS.
Stable Fixtures, Weather Vanes,

Pumps, Engines & Machin'y

—SOLD BY—

J. M. KEELER & CO.

Forwarding and Commission Merchants, Agents for Eastern and Pacific Manufacturers,

Nos. 328 and 330 Sansome Street, - - - San Francisco.

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THE

EXCELSIOR

FORCE and LIFT

PUMPS.

THE BEST IN USE.

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111 & 113 California Street

—AND—

17 & 19 DAVIS STREET,

SAN FRANCISCO.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, June 28th, 1876.

Trade is exceaaively dull, owing in part, most probably, to the naar approach of the holliday week and the run of warm weather. In Domastic Produce thare is quite a stagnation and prices are reduced. Merchants are generally looking forward to a prolonged rest next week. The Governor has called for the cessation of business on Monday, Tuesday and Wednesday, and his call will doubtless be quite generally observed. Soma of the banks will closa from Saturday at noon until the following Thursday, and we hear of a cessation of freight business by some railroads. The business world will taka a rest and it is doubtful whether there will be any transactions to report next week.

Domestic Produce.

The following tabla ahows the S. F. recalpts of Domeatlo Produce for the waak ending at noon to-day, as compared with the receipts of previous weeks:

ARTICLES.	WEEK JUNE 7.	WEEK JUNE 14.	WEEK JUNE 21	WEEK JUNE 28.
Flour, quarter sacks	83,107	44,764	31,278	12,644
Wheat, centals	29,158	39,273	62 921	120,494
Barley, centals	27,156	29,407	30,618	21,986
Beans, sacks	296	1,685	1,012	391
Corn, centals	3,713	7,684	5,010	3,169
Oats, centals	3,633	4,039	1,250	1,317
Potatoes, sacks	11,713	13,357	9,595	11,972
Onions, sacks	766	1,037	824	1,051
Wool, bales	4,022	3,213	4,226	1,776
Hops, bales	201	.....	65	33
Hay, bales	1,527	2,002	1,369	4,286

There is some loading of Wheat for the English market. The *Oakworth* has gone to Vallejo to load Wheat for Liverpool. The *Gold Hunter*, *Gryfe* and *Respigadera* are now there for the same purpose, and the *Victoria Nyanza* is loading Flour there for Europe.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	CAL. AVERAGE.	CLUB.
Thursday	9s 9d@10s 1d	10s —@10s 6d
Friday	9s 9d@10s 1d	10s —@10s 6d
Saturday	9s 9d@10s 1d	10s —@10s 6d
Monday	9s 9d@10s 1d	10s —@10s 6d
Tuesday	9s 8d@10s —	9s 10d@10s 5d
Wednesday	9s 8d@10s —	9s 10d@10s 5d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	12s 3d@12s 7d	12s 6d@12s 10d
1875	8s 10d@ 9s 2d	9s 2d @ 9s 6d
1876	9s 8d@10s —	9s 10d@10s 5d

The Foreign Review.

The telegraphed review of the *Mark Lane Express*, dated June 26th, is as follows:

"The Wheat plant is now mostly looking healthy and promising. There appears to be a reasonable prospect of a moderate if not a fair crop. The acreage is short, owing to the bad seed time, which rendered it necessary to sow many fields originally intended for Wheat with Beans or Barley. It appeara probable that the season of 1876 will be one of moderate crops, of fair quality, gathered at a somewhat later period than ordinary. The Wheat trade, sustained as it has been for some time by the Continental demand, and the possibility of political difficulties, has entered upon a phase of quiet, owing to the cessation of foreign requirements and the diminished attention Eastern affairs have commanded. At the same time supplies are being rapidly pushed forward, and with the anticipated enormous California crop in the background, little probability exists of prices advancing. A drooping tendency became apparent at the beginning of the week, and the fine weather, which has been pretty general throughout, has checked the firmness which was upheld by the consumptive demand. The off-coast Grain trade has ruled quiet, but a rather better demand has been apparent for cargoes of Wheat, at a decline of about two shillings per quarter on last week's prices. No improvement haa taken place for forward shipment, as the supply off the coast is more than sufficient to meet present requirements, and the fine weather further tends to render buyers careless. Malze and Barley offer no new features."

The War Cloud.

Dispatchea received Wednesday morning from different European capitals indicate that the Eastern question is not answered yet, and there is still possibility of a general conflict. The coming week will doubtless throw more light upon the subject.

The Western Wheat.

Dispatches from the prairie States apesk of injury to the growing Wheat. In Chicago discouraging reports are circulated regarding the ravagea of the chinch bugs and the Hesalan fly in the Wheat fields of Northwestern Illinois and West Wisconain, Northwestern Iowa and Southern Minnesota. In St. Paul, Minn., numerous complaints are coming in from various quarters of serious damage to the growing Wheat by unfavorable weather. Many correspondents and newspapers claim that not over half a crop will be raised.

Freights and Charters.

The past week, says the *Post*, has been dull and uninteresting as regards new Wheat chartera. There are now so many vessels chartered prior to arrival that it is seldom that an available ship enters our harbor from a deep water voyage disengaged. The freight ring, it is thought, are beginning to feel the first symptoms of a pinch that may annoy them further on. Rechaiters at the present are known to have been made at a good reduction on the rates ruling during the two previous weeks. Shipping houses do not feel disposed to pay high freights, and hence even £ 5 5s is not sufficiently low to induce them to operate. Ships are still offered through foreign houses, but at rat s which are far above the views of charterers. We have now in port 46 244 tons engaged for Wheat loading. The exact amount of tonnage on the way to this port up to the present writing is 278,384 tons. Following are the engagements of the week: Ship *Annie M. Smutt*, 1,581 tons, mdse to Liverpool in the Dispatch Line, private. Br. ship *City of Lahore*, 980 tons, Wheat to Liverpool, prior to arrival, private. Br. ship *Mulesden*, 1,402 tons, Wheat to Liverpool, prior to arrival, private. Br. bark *Firth of Forth*, 830 tons, Wheat to Liverpool, £3 2s 6d; Cork, U. K. £3 5s. Br. bark *McLeod*, 633 tons, now at Victoria, Wheat and Salmon from Astoria to Liverpool, £3 13s 6d. Br ship *Howden*, 1,218 tons, Wheat to Liverpool, prior to arrival, private. Br. ship *Swordfish*, 725 tons, Wheat to Liverpool, prior to arrival, £3 10s. Br. bark *Geo. Broughton*, 823 tons, Wheat to Liverpool, prior to arrival, private. The disengaged tonnage in port comprises 18 vessels, aggragating 14,638 tons.

Bags—There is much difference of opinion concerning the market for Wheat Bags. The *Oceanic* brought from Calcutta 370,000 Grain Bags, 102 bls Burlaps, equivalent to 102,000 Bags, and 17 bls Bagging. There have been sales of imported Grain Bags recently at 13¼c, 60 days. The quotable price at present is 13½c, four months, though some holders ask an advance on this rate. We understand that some old stock of Burlap goods, on hand for two or three years, has been offered at 13½c. Some dealers quote the market at 13¼ @13½c, while others will report nothing in standard Hand Sewed lasa than 13½c, with 14c for jobbing lots.

Barley—New Barley has been arriving in large amount, and the market is heavy and weak at present. We note salas: 950 aks old bay Feed, 95c, silver; 200 do new, 87½c, silver; 700 do, 87½c; 400 do old bay, $1.05, half silver; 1,600 do new do, 87½c; 400 do old coast, 90c ₱ ctl, both silver; 1,800 do new Faed, 80c, gold; 900 ctls new coast Feed, 85c, silver; 500 good do, at 87½c, half silver; 200 do, 87½c, silver; 550 old Feed, 95c, silvar; 400 do, 95c, silver; 1,000 ctls bay Brewing, $1.15 ₱ ctl; 350 do naw Feed, 90c, silvar; 500 sks new Feed, 87½c, 500 do do, 85c ₱ ctl, both half silver; 200 do do, 87½c; 1,000 do do, 85c; 1,000 ctls old Feed, 95c, all silver.

Beans—Beans are nominal in price. Receipts are very light.

Corn—Corn is steady and unchanged. We note sales of 380 aks large Yellow, $1.15. Small round corn is quotable at $1.20@$1.22½.

Dairy Produce—Dairy Produce is dull and the trade shows nothing new.

Eggs—Eggs are slightly improved, fresh California bringing 28@30c.

Feed—Hay is received in large quantities. There is much, however, of inferior quality which sells very low. The market generally is abundantly supplied. We note sales: 39 tons good Wild Oat, $11.50; 40 do Stock, $8; 56 do Stock, $7; 25 do Wild Oat, $9; 50 do fair mixed, $10; 43 do good do, $11.50; 20 tons common, $7.50; 12 do at $7; 30 do at $8; 45 do Wild Oat and Clover at $9; 39 do Wild Oat at $11; 25 do Wheat at $12; 12 do coarse Barley at $7; 46 do common Wheat, $7.50@8; 25 do choice Wheat, $12 ₱ ton.

Fruit—The first carload of California Fruit of the season has been shipped from Brigga' orchard, Marysville, to Philadelphia. It goes through on passenger time. The contents of the car were 500 boxes Moorpark Apricots, 100 boxes Cherry Plums, June Plums and Pears, and 300 boxes early May Peaches. In this market there are a few changes in price, as given in our tables below.

Hops—We note sales of 10 bales Russian River Hops, 13c; 37 do do, at 12½c. Emmet Wells reports the New York market for the week ending June 16th as follows:

"The transactions this week have been on a larger scale than for several weeks past, the shipmenta to Europe alone amounting to nearly 600 bales. Stocks are rapidly working down, and with continued shipments we will go out with a cleaner market in September than for many years past. There is not much likelihood, however, of an advance in the price while the growing crop continues as promising as now. There is still some complaint of the potato bug in the Madison and Oriskany Falls districts in this State; otherwise, our reports are generally encouraging. Foreign crop advices are rather unfavorable. The vine in England is spoken of as being very weakly, while in Germany the growth has been retarded by the cool, unseasonable weather."

Oats—The first Oats of the season arrived during the week. One lot of 140 sks, from Pajaro valley, was of good quality; the other, 430 aks, from Napa valley, was inferior and mixed with Barley, etc. They sold, low. The market is generally well supplied with old; and the new crop is so near that buyers are purchasing in small lots. We note sales: 300 sks good old, at $2; 200 ctls Feed, $1.75, half silver; 150 sks choice Feed $2.25; 50 sks good Feed, $2, gold, per ctl.

Onions—Prices are generally unchanged. Silverskins are a trifle better in price to-day. We note a sale of 45 sks choice Stockton at 87½c per ctl.

Potatoes—The first consignment this season from Cuffey's Cove sold at $1.12½: Half Moon Bay and Mission, 75c@$1, with a few extra at $1.10. Other sales are as follows: 150 sks New Reds and Early Rose on the wharf at 87½c@$1.25 per ctl; 350 do New Reds, 95c@$1.10 per ctl.

Provisions—The demand for cured Meats is large and increasing, with prices showing an advancing tendency. Fresh Beef and Mutton are abundant and low. Pork is lower. The supply is moderate and demand light.

Poultry—Hens, Roosters and Broilers are cheaper than last week.

Rye—Rye is in fair demand. Sales of 127 sks new Coast Feed at 170; 130 aks choice new, at $1.90 per ctl.

Vegetables—Watermelons are again in market. A box of Bay Corn brought 35c per doz. Stockton and Sacramento River Tomatoes are beginning to arrive quite freely. Changes in prices of Vegetables may be noted in our wholesale list below.

Wheat—Transactions in Wheat have been large and prices are generally lower. We note sales of new Wheat as follows: 3 400 ctls Shipping, July delivery, $1 50 per ctl; 3,500 do, to arrive, $1.52½; 600 do, spot, $1.50; 600 do coast, $1.47½; 600 ctls new Coast, $1.47½; 600 ctls Shipping, $1.50; 5,440 ctls choice Shipping, $1.52½; 8,000 aks choice new Shipping, alongside, $.160; 2,000 do choice Stockton Milling, $1.65; 400 aks new Superfine, $1.40, 207 ctls new Sonora, $1.52½. It is reported that a greater part of the Wheat necessary to load the vessels under charter for July loading has been secured. In old Wheat there have been sales as follows: 500 sks good old Santa Clara, at $1.62½; 147 sks old Shipping, $1.60, half silver; 300 do choice white Australian Milling, $1.65; 2,000 do do Stockton do at $1.65; 2,000 aks good old, $1.62½. The best old Milling is quoted at $1.65@1.70 per ctl.

Wool—Wool is unchanged. There have been sales at a range of 13@18½c. Free Northern is quoted to-day at 16@20c, and free Southern at 12@16c. The telegraphed report from tha East is as follows:

NEW YORK, June 24th.—The Wool market since last report has shown a fair degree of activity, and quite a large quantity of domestic has changed hands. This increased demand, without doubt, springs directly from the satisfactory result of the recant goods sales, for since then there has been a steady inquiry from manufacturers, which goes to show that they still have confidance in the future of the market, and are willing to produca so long as there is sufficient margin between the price of the raw material and the manufactured article. Prices continua very steady, and the genaral opinion is that they have reached the bottom. The sales for the week are 226 200 lbs spring California at 20@24c; 15,000 lbs fall, 12½₱15c; 84,000 lbs fine Eastern Texas, 17@22c; 22 000 lbs Western, 13@19c; 1,200 lbs Laka, 22c; 7,000 lbs Georgia. 24½@25c; 1,000 lbs combing fleece; 40c; 3,000 lbs fine Western do, 33c; 1,500 lbs Dutchess county, Mo., 37½c, and 24 000 lbs XXX Ohio do, 3,000 lbs tub washed do, 2,000 lbs scoured California, 10 bags shearings, 51 bags No 1 pulled, 5 do, and 70 do supar lamb's, on private terms.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., June 28, 1876.

BEANS.

Bayo, ₱ ctl	4 50@5 00
Butter	1 90@2 25
Pea	1 92½@ —
Pink	2 50@3 00
Sm'l white	1 60@1 90
Lima	1 90 @2 00

BROOM CORN.

Common, ₱ lb	2 @ 3
Choice, do	4 @ 5

COTTON.

Cotton, ₱ lb	15 @ 18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	22½@ 27½
Point Reyes	— @ 30
Firkin	22 @ 26
W'st'n Reserve	16 @ 20
New York	— @ —

CHEESE.

Cheese, Cal., lb	10 @ 15
do Old	— @ —
Eastern	— @ —

EGGS.

Cal. fresh ₱ doz	29@ 30
Ducks'	— @ 25
Oregon	22½@ 25
Eastarn	21 @ —

FEED.

Bran, per ton	— —@19 00
Corn Meal	27 50 @28 00
Hay	8 00 @13 00
Middlings	24 00 @— —
Oil cake meal	— —@37 50
Straw, ₱ bale	50 @ 60

FLOUR.

Extra ₱ bbl	5 50 @5 75
Superfine	4 50 @4 75
Graham, ₱ bbl	5 50 @ —

FRESH MEAT.

Beef 1st quality lb.	5½@ 6
Second do	3½@ 4
Third do	2½@ 3
Spring Lamb	4½@ 5
Mutton	2½@ 3
Pork, undressed	6½@ 6½
do, dressed	9½@ 9½
Veal	5 @ 5½
Milk Calves	6 @ 7

GRAIN, ETC.

Barley, feed ctl	1 00 @ 1 05
do new	80 @ 92½
do brewing	1 05 @ 1 15
Chevalier	1 25 @ 1 35
Corn, White	1 15 @ 1 20
do Yellow	1 15 @ 1 17½
Oats	1 90 @ 2 25
Milling	— — @ 2 30
Rye	1 80 @ 2 00
Wheat shipping	1 57½ @1 60
do milling	1 60 @1 70

HIDES.

Hides, dry	10 @ 13
do wet salted	6 @ 6½

HONEY, ETC.

Beeswax, per lb	25 @ 27½
Honey in comb	12½@ 15
do Strained	8 @ 10

HOPS.

New crop	10 @ 13

NUTS—Jobbing.

Alm'ds h'rd sh'l lb	8 @ 10
do, soft sh'l	18 @ 20
Brazil do	14 @ 16
Cal. Walnuts	12 @ 14
Chile Walnuts	11 @ 12½
Peanuts per lb	9 @ 10
Filberts	15 @ 16
Pecanuts	17 @ 18

ONIONS.

Union City ctl	— @ —
Stockton	— @ —
New Red	75 @ 1 00
Silver Skins	1 00@ 1 12½

POTATOES.

Petaluma, ₱ ctl	— @ —
Salt Lake	— @ —
Humboldt	— @ —
Early Rose, new	1 00@ 1 12½
Sweet	— @ —
New	90@ 1 12½

POULTRY & GAME.

Hens, per dz	8 00 @9 00
Roosters	7 50 @9 00
Broilers	3 50 @5 00
Ducks, tame, dz	5 00 @7 00
do Mallard	— @5 00
do Canvasa	— @5 00
Geese, per pair	1 75 @2 25
Wild Gray dz	3 00 @4 00
White	1 50 @2 00
Turkeys, Live, lb	15 @ 20
do Dressed	22 @ 24
Quail, per doz	— @ —
Snipe, Eng., doz	2 00@2 50
Doves, per dozen	50 @ 57
Rabbits	1 00 @1 00
Hare, per doz	1 50 @2 00

PROVISIONS.

Cal. Bacon, L'd, lb	15½@ 16
do Medium	14½@ 15
do Heavy	— @ 15
Lard	14 @ 16½
Cal. Smoked beef	9 @ 10
Eastern do	— @ 10
East'rn Should's	— @ 10
Hams, Cal	14 @ 14½
do Armour	14½@ 15
do Worster's	16½@ 17
do Dupee's	16 @ 16½
do Davis Bros'	16½@ 17

SEEDS.

Alfalfa, Chile lb	8 @ 10
do California	12 @ 13
Canary	18 @ 20
Clover Red	— @ 22
do White	50 @ 55
Cotton	8 @ 10
Flaxseed	— @ 3¼
Hemp	12½@ —
Italian Rye Grass	25 @ 30
Perennial do	20 @ 30
Millet	10 @ 12
Mustard, white	3 @ 3½
do. Brown	3 @ 3½
Rape	7 @ 9
Ky. Blue Grass	30 @ —
do 2d quality	25 @ —
Sweet V Grass	— @ 75
Orchard do	30 @ 35
Red Top do	— @ 25
Hungarian do	8 @ 12
Lawn do	50 @ —
Mesquit do	20 @ 25
Timothy	11 @ 13

TALLOW.

Crude, ₱ lb	6½@ 7
Refined	8½@ 9

WOOL, ETC.

SPRING—	
Seedy, ₱ lb	9 @ 12½
Choice long free	17 @ 18
do Northern	19 @ 21
do short	13 @ 16½
Burry	10 @ 14
Oregon	— @ —

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., June 28, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M	— —@— —
Tahiti, do	20 00@30 00
Cal. do	— —@— —
Limes, Mexican, ₱ M	12 50@20 00
Malaca Lemons, ₱ bx	— —@— —
Cal. ₱ 100	2 00@ 2 50
do Sicily ₱ b'x	9 00@10 00
Bananas, ₱ bnch	2 50@ 4 00
Cocoanuts, ₱ 100	7 00 @ 8 00
Pineapples, ₱ dz	— @ —
Apples, ₱ box	75 @1 50
do Choice	— @ —
Apricots, lb	2 @ 3
Blackberries	12½@ 20
Cherries, ₱ lb	6 @ 10
Tartarian	15 @ 20
Cherry Plums, box	75@ 1 00
Figs	12½@ 18
Gooseberries	5 @ —
Huckleberries	— @ —
Strawber's ₱ case	8 00 @10 00
Pomgranates	— @ —
Raspberries	12½@ 20
Currants, ₱ case	2 00@3 00
Orsnberries ₱ bbl	13 00@14 00
Peaches, ₱ box	1 00@ 3 00
Pears, ₱ bx	1 00@1 50
do Choice	— @ —
Crab apples, ₱ bx	— @ —

DRIED FRUIT.

Apples, ₱ lb	9 @12½
Pears, ₱ lb	8 @13
Peaches, ₱ lb	12 @12½
Apricots, ₱ lb	14 @15
Plums, ₱ lb	5 @ 6
Pitted, do ₱ lb	17 @22
Raisins, imported	3 25 @3 75
Cal. Raisins	5 @ 10
Black Figs, ₱ lb	5 @10
White, do	12½@15
Prunes	12½@ 17
Citron	28 @ 30
Zante Currants	9 @ 10

VEGETABLES.

Asparagus ₱ box	1 50@2 25
Beets ₱ ctl	—@ 75
Cabbage, ₱ 100 lbs	62½@75
Carrots, ₱ 100 lbs	75@ —
Cauliflower, doz	50@ 75
Celery, doz	50 @—
Garlic, ₱ lb	3½@ 5
Green Peas ₱ lb	2@ 2½
Green Corn ₱ doz	10@ 35
Sum'r Squash ₱ box	—@1 00
Marro'fat Sqsh, tn	— @—
Artichokes, ₱ doz	— @—
String Beans, ₱ lb	3 @ 3½
Lima Beans	— @—
Parsnips	— @—
Shell Beans	— @—
Peppers, green, lb	— @50
Okra	— @—
Cucumbers, ₱ doz	10@ 20
Tomatoes, box	50@ 75
Egg Plant, box	—@2 00
Rhubarb lb	1@ 1½
Lettuce, doz	12½@ —
Turnips, pr ctl	75@ —

RETAIL GROCERIES, ETC.

WEDNESDAY, M., June 28, 1876.

Butter, Cal. choice	30 @37
Cheese, lb	18 @30
Eastern	25 @30
Lard, Cal., lb	— @18
Eastern	20 @25
Flour, ex. fam, bl	6 25 @6 50
Corn Meal, lb	2½@ 3
Sugar, Wh. crsh'd	12½@13½
do lt. brown, lb	8 @ 9½
Coffee, green, lb	23 @ 35
Tea fine blk	50, 65, 75 @1 00
Tea finest Jap	55, 75, 90 @100
Candles, Adman'e	15@ 25
Soa, Cal., lb	7 @ 10
Rice, lb	8 @ 9½
Yeast Powders, dz	1 50 @2 00
Bowen Bro. large cau per doz	5 00 @— —
Small, do	2 50 @— —
Bowen's Cream Tartar lb	— @ 75
Cal'd Oysters, dz	2 00 @2 50
Syrup, S F. Gol'n	75 @1 00
Dried Apples	10 @ 12½
Dr'd Ger. Prunes	12½@ 14
Dr'd Figs, Cal	9 @ 10
Dr'd Peaches	11 @ 15
Oils, Kerosene	30 @ 40
Wines, Old Port	3 50 @5 00
do Fr. Claret	1 00 @2 50
do Cal., dz. hot	3 00 @4 50
Whisky, O K, gal	3 50 @5 —
" Brandy	4 00 @6 00

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by SUTRO & CO.]

SAN FRANCISCO, June 28, 3 P. M.

LEGAL TENDERS in S. F., 11 A. M., 89½ to 90. Silver, 71½@8.

GOLD in N. Y. 112 ⅜.

GOLD BARS, 880 to 890. SILVER BARS, 12 and 20 per cent. discount.

EXCHANGE on N.Y., 50-100 par cent. premium for gold; on London bankers, 49; Commercial, 49¼; Paris, five francs per dollar; Mexican dollars, 9 per cent. discount.

LONDON — Consols, 93 to 93⅝; Bonds, 102⅝.

QUICKSILVER in S. F., by the flask, par D, 47½@48c

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., June 28, 1876.

BAGS.

Eng. Stand Wht	13½@14
Neville & Co's	— —
Hand Sawad	13½@14
24x36	— @—
24x40	— @—
Machine do 24x49	— @15½
" " 23x40	14½ @—
" " 22x40	14 @—
" " 22x36	13 @13½
Flour Sacks ½s	9½@11
" " ¼s	6 @ 7
" " ⅛s	4½@ 5
Hessian 60-in	12¼ @14½
do 45-in	— @10¼
do 40-in	8½ @9
Wool Sacks, 3½ lbs	45 @50
do 4 "	50 @52½
Stand. tannies	11 @15
single seam do	@—
Bean Bags	7½@ 8

CANNED GOODS.

Ass't'd Pie Fruits in 2¼ lb cans	2 75 @ 3 60
do Table do	3 75 @ 4 25
Jams & Jellies	4 25 @ —
Pickles ¼ gl	— @ 3 50
Sardines, qr box	65 @ 1 90
do hf boxes	3 00 @— —

COAL—Jobbing.

Australian, ₱ ton	—@10 50
Coos Bay	8 00 @10 00
Bellingham Bay	— @ 8 50
Seattle	10 00 @— —
Cumberl'd	—18 00 @22 00
Mt. Diablo	6 25 @8 25
Lehigh	— —@22 00
Liverpool	10 00 @11 00
West Hartley	— — @14 00
Scotch	9 00 @11 00
Scranton	13 00 @16 00
Vancouver's Isl	10 50 @ 2 00
Charcoal, ₱ sk	75 @ —
Coke, ₱ bbl	— @ 60

COFFEE.

Sandwich Island	— @ 21½
Costa Rica par lb	22½@—
Gnatemala	— @ 22½
Java	— @ 30
Manilla	— @ 21½
Ground in os	25 @ —
Chicory	27 @ —

FISH.

Sao, Dry Cod, new	4 @ 4½
cases	6 @ 7
do boneless	8½@ 10
Eastern Cod	8 @ 8½
Salmon in bbls	7 25 @—
do ½ bbls	3 75 @4 00
do 2 lb cans	2 50 @—
do 1 lb cans	1 35 @1 40
do Col. R, ½ lb	5 00 @5 50
Pick. Cod, hbls	22 00 @—
do ½ bbls	11 00 @—
Mack'l, No. 1, ½ bls	11 00 @—
" Extra	— @12 00
" in kits	1 90 @2 25
" Ex mess	3 50 @4 00
" Ex mess, ½ bs	—@12 00
Pic'd Herr'g, bx	3 00 @ 3 50
Bos. Sm'k'd Her'g	40 @ 50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl	2 00@ 2 25
Cement, Rosendale, do	2 75@ 3 50
do Portland do	4 75@ 5 50
Plaster, Golden Gate Mills	3 00@ 3 25
Land Plastar, ₱ ton	10 00@ 2 50

MISCELLANEOUS.

Pulu	— @ 7½

NAILS.

Assorted size, keg	3 75 @4 00

OILS.

Pacific Glue Co	
Naat F't No. 1	1 00 @ 90
Pure	— @ —
Castor Oil, No. 1	— @1 15
Baker's A A	— @1 15
Cocoannt	52 @ 55
Olive Plagniol	5 50 @5 75
do Possel	4 75 @5 00
Palm lb	9 @ —
Linseed, raw	— @ 70
do boiled	— @ 75
China nut in cs	65 @ —
Sperm, crude	1 60 @1 65
do bleached	1 90 @2 25
Coast Whales	47½@ 50
Polar, refined	— @ 50
Lard	— @1 20
Oleophine	— @ 28
Devoe's Brill't	25 @ 27
Long Island	— @ 25
Eureka	26 @ 27
Devoe's Petro'm	25 @ 27½
Barrel kerosene	23 @ 25
Olive	— @3 50
Downer Kerese'e	— @ 37½
Elaine	37½@ —
Gas Light (D)	23 @ 25

PAINTS.

Pure White Lead	9¾ @10¼
Whiting	— @ 1¾
Putty	4 @ 5
Chalk	— @ 1½
Paris White	— @ 2½
Ochre	— @ 3½
Venetian Red	— @ 3½
Red Lead	10 @ 11
Litharge	10 @ 11
Eng. Vermillion	—@1 25
Averill Chemical Paint, per gal. White & tints	2 00 @2 40
Green, Blue & Ch Yellow	3 00 @3 50
Light Red	3 00 @3 50
Metallic Roof'g	1 30 @1 60

RICE.

China No. 1	5½@ 5¾
Hawaiian, ₱ lb	7½@ 7¾
Carolina, ₱ lb	10 @ —

SALT.

Cal. Bay, per ton	10 00@14 00
do Common	5 00@ 7 00
Carmen Island	12 00@15 00
Liverpool fine	22 50@25 00

SOAP.

Castile ₱ lb	10 @ 11¼
Common brands	4½@ 6
Fancy do	7 @ 9

CANDLES.

Grant's	16½@ 17
Mitchell's	20 @ 22

SPICES.

Cloves ₱ lb	45 @ 47½
Cassia	23½@ 26½
Citron	28 @ 30
Nutmegs	95 @ 97½
Whole Peppar	14½@ 14½
Pimento	16 @ 17½
Gr'nd Allsp'r'd'z	@1 12
do Cassia do	— @1 50
do Cloves do	— @1 50
do Mustard do	@1 20
do Ginger do	— @1 00
do Pepper do	— @1 00
do Mace do	— @2 00
Bowen's Pure Ground ₱ lb	— @ 50

SUGAR, ETC.

Cal. Unbe per lb	— @ 12¾
Circle A crushed	— @ 12
Powdered	— @ 12¼
Fine crushed	— @ 12
Granulated	— @ 11¾
Golden C	— @ 10¾
Hawaiian	10 @ 11
Cal. Syrup in kgs	— @ 62½
Hawaiian Molasses	25 @ 27½

TEAS.

Oolong, Canton, lb	19 @ 25
do Amoy	28 @ 50
do Formosa	40 @ 80
Imperial, Canton	25 @ 40
do Pingsuey	45 @ 80
do Moyune	60 @1 00
Gunpo'der, Cant	75 @1 00
do Pinksney	50 @ 90
do Moyune	65 @1 25
Y'ng Hy., Canton	28 @ 40
do Pingsuoy	40 @ 70
do Moyune	65 @ 87
Japan, ½ chests, bulk	30 @ 75
Japan, lacquered hxs, 4½ and 5 lbs	48 @ 67
Japan do, 3 lb bxs	45 @ 90
do pl'n bx, 4½ lb	35 @ 65
do ½ & 1 lb paper	30 @ 55

TURPENTINE.

Eastern	51½@55

LUMBER.

CARGO PRICES OF REDWOOD.

Rough, ₱ M	$18 00
Rough refnsa, ₱ M	14 00
Rough clear, ₱ M	30 00
Rough clear refuse, M	20 00
Rustic, ₱ M	32 50
Rustic, refuse, ₱ M	22 50
Surfaced, ₱ M	30 00
Surfaced refuse, ₱ M	20 00
Flooring, ₱ M	28 00
Flooring, refuse, ₱ M	18 00
Beaded flooring, ₱ M	30 00
Beaded floor, refuse, M	20 00
Half-inch Siding, M	20 00
Half-inch siding, ref, M	16 00
Half-inch, Surfaced, M	25 00
Half-inch Surf. ref., M	20 00
Half-inch Battens, M	20 50
Pickets, rough, ₱ M	1 00
Pickats, rough, p'ntd	13 00
Pickets, fancy, p'ntd	8 00
Shingles ₱ M	3 00

PUGET SOUND PINE - Retail Price.

Rough, ₱ M	22 50
Fencing, ₱ M	22 50
Flooring and Step, ₱ M	32 50
Flooring, narrow, ₱ M	35 00
Flooring, 2d quality, M	25 00
Laths, ₱ M	3 50
Furring, ₱ lineal ft	—¾

REDWOOD - Retail.

Rough, ₱ M	22 50
Rough refuse, ₱ M	18 00
Rough Pickets, ₱ M	18 00
Rough Pickets, p'd, M	20 00
Fancy Pickets, ₱ M	30 00
Siding, ₱ M	25 00
Surfaced and Long Beaded	37 50
Flooring	35 00
Do do refuse, ₱ M	25 00
Half-inch surfaced, M	32 50
Rustic, No. 1, ₱ M	40 00
Battens, ₱ lineal foot	—¾c
Shingles ₱ M	2 00

FARMERS,

BEWARE OF FIRE!

The undersigned, having been appointed Manager for that particular Branch of Insurance, is prepared to

INSURE GROWING GRAIN

And While Standing in Stacks and Sacks.

Companies Represented:

SVEA, of Gothenburg, Sweden.

FRENCH INS. CORPORATION, of Paris, France.

LOCAL OFFICES

AT PRINCIPAL POINTS IN THE GRAIN-GROWING DISTRICTS IN ALAMEDA AND BUTTE COUNTIES AND SAN JOAQUIN VALLEY. THE BUSINESS WILL SOON BE E

Nurserymen.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Araucarias, Pines, Cypress, etc.; Fine assortment of Camelias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.

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SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE OLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-1y

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenons to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞ Illustrated Catalogue free on application.

COHANSEY GLASS TOP

FRUIT JARS.



FRUIT IN CONTACT WITH GLASS ONLY.

Elastic Pressure by Spring Clamps on Shoulder Joint.

The Screw Clamp turns freely on Cover and Inclines, and tightens the Jar quickly and is Easily Tested.

Easily opened and closed, without wrench or tool.

Every Jar being inspected, there is no trouble in using.

The Handsomest and Best Glass Lid Fruit Jar.

COHANSEY GLASS MF'G CO.,

N. W. Cor. Third and Arch Sts., Phil'a.

REDDINGTON & CO.,

Wholesale Agents, - - - San Francisco, Cal.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

Stockton, Cal.

MERCHANT MILL FOR SALE,

And 150 Acres Land. Turbine Wheel, 190 feet fall, 35 barrels per day. Good Home Market and Never Failing Water.

S. A. POLLARD,
San Luis Obispo.

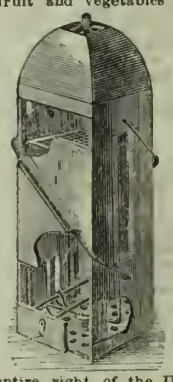
Agricultural Articles.

J. W. CASSIDY'S

FRUIT DRIER.

A New Invention, although Thoroughly Tested, which Combines all the Improvements.

We warrant a complete success in drying all sorts of fruit and vegetables as thoroughly and more expeditiously than any other Machine, for less amount of fuel by 35 per cent, as we utilize all the waste heat which is lost by all other Machines.



Its simplicity of construction and its cheapness will put it in the hands of all who may want a Drier. We don't pretend to ask from $1,200 to $1,500 profit and royalty. We are willing that producers should make the profit and keep it. The Machine has been tested to our entire satisfaction, and met our most sanguine expectations. The fruit dried by our Drier was fully as good as that dried by any of the renowned Driers. We would say to all who contemplate putting up Machines, that we can make it a decided inducement for all such to give me a call, as we want to sell the entire right of the United States, State, County or Local, at such prices that the poor as well as the rich can use them. The capacity of the Machine will be in proportion to the size, ranging from 100 to 500 feet drying surface. This dryer was more fully illustrated and described in the RURAL PRESS of May 20th, 1876. Communications to T. F. BACHELOR, 622 Clay St., S. F., or to **J. W. CASSIDY**, Petaluma, Cal., will be thankfully received and promptly attended to.

NEW

Agricultural Implement Depot

—AT—

Watkins & Scott's Alameda Foundry,

SAN JOSE, CAL.

Agent for Walter A. Wood's New Iron Mower, Reaper, and Self-Binder, Haines' Single-Gear Header, Improved Sweepstakes Thresher, and Sulky Rakes; also, the Celebrated Revolving Sulky Rake, and the Champion Revolving Rake, and the well known Tiffin Revolving Rake; La Belle Farm Wagons, and Spring Wagons of all descriptions.

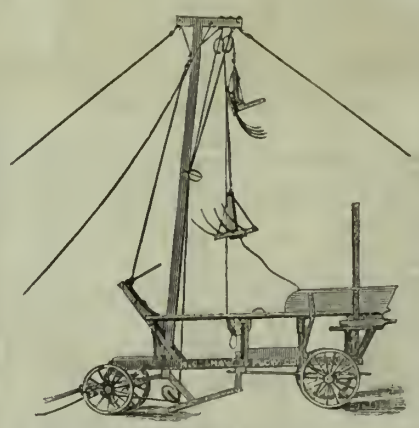
The attention of farmers is particularly called to the

New Revolving Sulky Rake.

It has met an enormous sale at the East and in and around Sacramento.

Also, all kinds of new and second-hand machinery for sale. Farmers and others will find it to be to their interest to call on me before buying, as I am selling everything very low for cash.

ORRIN TABER.



This cut represents a DERRICK AND FORK, for the purpose of supplying GRAIN IN THE STRAW TO A THRESHING MACHINE. The success of this machine is beyond question. It is a saving of EIGHT OR TEN DOLLARS PER DAY over the hand fork mode. We also make DERRICKS for the purpose of STACKING HAY OR GRAIN, which meet with great favor everywhere. Manufactured by **MATTESON & WILLIAMSON,**
Stockton, Cal.

TABER'S

IMPROVED HAY FORK.

[Patent Applied For.]

Is the most perfect, and easiest operating derrick fork in existence. One man can operate it with the greatest ease, as the strain of lifting the fork causes it to grapple its load automatically, while a pull upon the releasing cord, when the fork has been lifted to the desired place, causes it to drop the load instantly.

There is nothing in the construction of this Fork that is liable to get out of order.

Farmers will do well to examine this Hay Fork, as it saves expense and greatly facilitates the handling of hay, grain and straw. Communications addressed to

J. T. HOYT, Gen. Agent,

SAN MATEO, CAL,

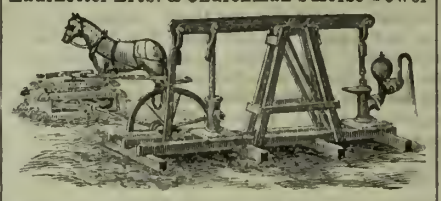
Will receive Prompt Attention.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power



[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Sheller, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

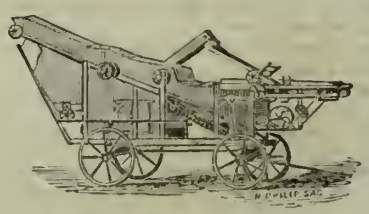
Manufactured and for sale by

LAUFKOTTER BROS.,

Cor. J and 10th Sts., Sacramento.

JACKSON'S

PATENT FEEDER & ELEVATOR



For Threshing Machines.

The most successful Automatic Feeder yet invented; it has had the severest tests in all kinds of grain, long, short, wet or weedy, during the past six years. There are over two hundred in use in the Sacramento valley. I will give full guarantee to purchasers. Send for special circular. Address,

BYRON JACKSON,

Patentee & Manufacturer,

Woodland, Yolo County, California.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



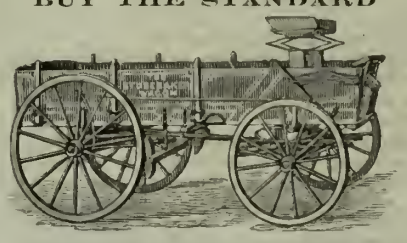
GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.

BUY THE STANDARD



STUDEBAKER WAGONS.

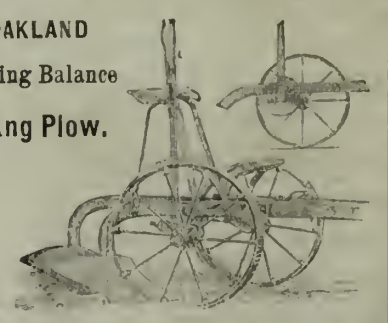
We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

E. F. AMES, Gen. Agent,

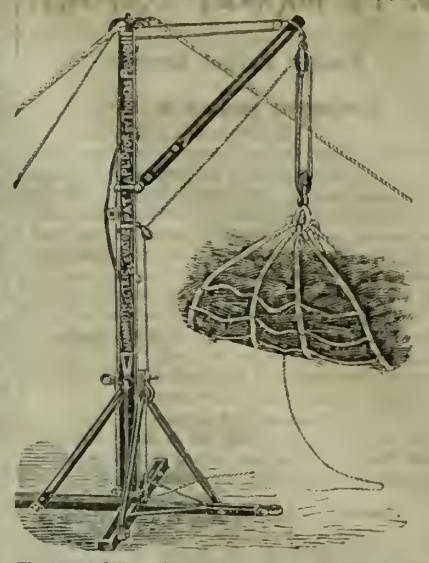
Send for Price-List. Sacramento, Cal.

OAKLAND Spring Balance Gang Plow.



Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal. Established in 1858. Send for Circular and Price-list

Powell's Electric Elevator.



The great labor, time and money saving machine. This machine is used in the harvest field to elevate grain, hay and straw from the header box to the stack, only a few seconds being required to elevate a large four horse load. The load is taken up in a center opening net or sling. Patented April 20th, 1875. For description, circular and price list, address

THOS. POWELL, Patentee, Stockton, Cal.

Or H. C. SHAW PLOW CO., Stockton, Cal.

The Famous "Enterprise"

(PERKIN'S PATENT)

Self-Regulating, Farm Pumping, Railroad and Power

WINDMILLS,

Pumps & Fixtures,



Have been in use in California for five years. Over 500 sold in the towns and farming districts of California. All Mills guaranteed. Send for circulars containing sectional and other illustrations, and further description, to

ISRAEL HORTON, Gen'l Ag't Pacific Coast,

Livermore, Alameda County, Cal.

FAULKNER'S EXCELSIOR

Portable Family Fruit Drier,

$65.00 to $75.00.

The Best, Cheapest and Only Practical Portable Family Fruit Drier Made.

It will do as good work as any Drier. It can be used in connection with the cook stove or any small stove; may be run in the house or out of doors. Is very compact and plain in its construction and simple in its management. A child can attend to it.

With this Drier every family can save their surplus fruit, and put it in condition to bring the cash or trade at the store. We have the world for a market; last year's stock is exhausted. There will be a ready sale at good prices for all you can make.

Manufactured and for sale by E. T. STEEN, 31 Beale street, where they can be seen in operation. Also for sale by Messrs. STRONG & WILLIAMSON, 418 Clay street, San Francisco, and Messrs. W. R. STRONG & CO., 8 and 10 J street, Sacramento.

County Rights for 15 years for sale low and on easy terms by

JAS. W. FAULKNER, Patentee,
31 Beale Street, San Francisco

Marster's Self Regulating

FEEDER

For Threshing Machines,

Is the only Feeder manufactured that feeds without moving all the straw in a body, consequently gives a more regular feed than it is possible to obtain with a draper feeder; it feeds the whole length of the cylinder; it is easily changed to feed fast or slow as desired; saves the labor of two men and does not require an experienced fahleman to feed it. The separator needs no alteration with the exception of the removal of feed board to secure it in position, and does not have to be taken off when moving. It requires but little power to run it, and has no complicated parts liable to get out of order. Its success having been fully demonstrated, I cordially invite all parties interested to call and judge of its merits. For full particulars address

E. J. MARSTERS,
Stockton, Cal.

Works, Corner California and Sonora Streets.

Dewey & Co. {224 SANSOME ST} **Patent Agt's.**

HARVESTING MACHINERY,

MOWERS—Wood's Eagle, Peerless & Clipper.

REAPERS—RUSSELL'S PEERLESS.

HEADERS—Haines' Genuine Single Gear.

SEPARATORS AND POWERS.

Chicago Pitts, with End and Side Shake, with Pitts' 10 and 12 horse-powers, the best and strongest machines in market.

Steam Engines.

ENRIGHT'S STRAW BURNER, the latest and best for utility and economy. Capacity, 15 to 18 horse. MANSFIELD PORTABLE ENGINES, for wood or coal; 10 horse.

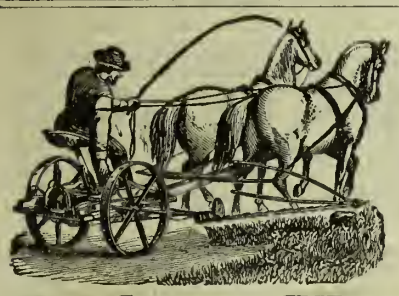
LYMAN'S SELF-FEEDER.

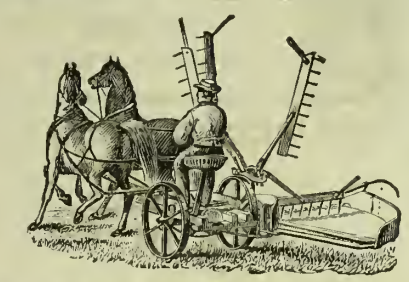
Invented by a practical thresher. Best in the market. Price only $150. It surpasses all others in durability and simplicity of construction. Can be applied to any Separator in a few hours, and taken off in 15 minutes. It is guaranteed to give satisfaction or no pay.

FULL SUPPLY OF "EXTRAS" FOR ALL OUR MACHINES.

Linforth, Kellogg & Co.,

Nos. 3 and 5 Front St., San Francisco, Cal.





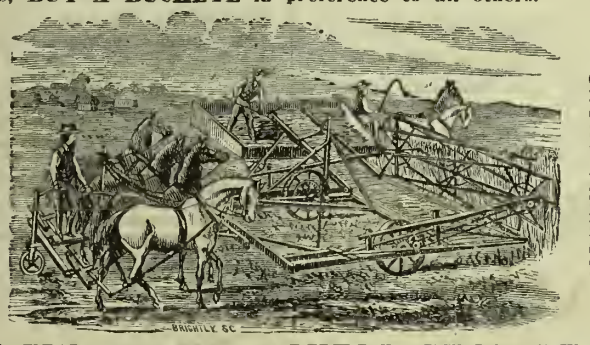
Buckeye Mower and Reaper.

The most perfect, the most reliable, and most durable Harvester ever built.

12,000 in use on the Pacific Coast. Every farmer using them will bear testimony to their unequalled merits. They will do better work and will outlast two of almost every other make of machine.

Farmers, BUY A BUCKEYE in preference to all others.

With Adjustable Reels. IRON WHEELS. SHORT FRAMES. Springs to raise Cutter-bar.

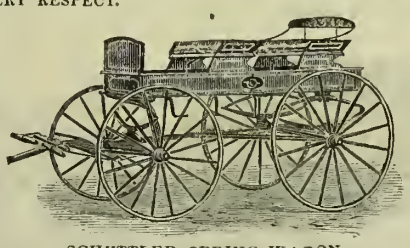


HAINES' SINGLE AND DOUBLE GEAR HEADERS.

We offer a Header to farmers this season improved far in advance of any Header in the market and one we can WARRANT IN EVERY RESPECT.



SCHUTTLER FARM WAGON.



SCHUTTLER SPRING WAGON.

Superior in strength, durability, and lightness to any wagon manufactured. Warranted to run lighter and wear longer than any wagon in America.

MARCUS C. HAWLEY & CO.,

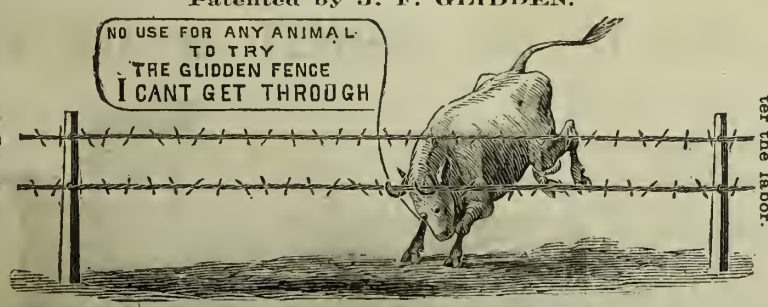
San Francisco and Sacramento, Sole Agents for the Pacific Coast.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE,

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



About one-half the cost of any other good fence, and can be put up for one-quarter the labor.

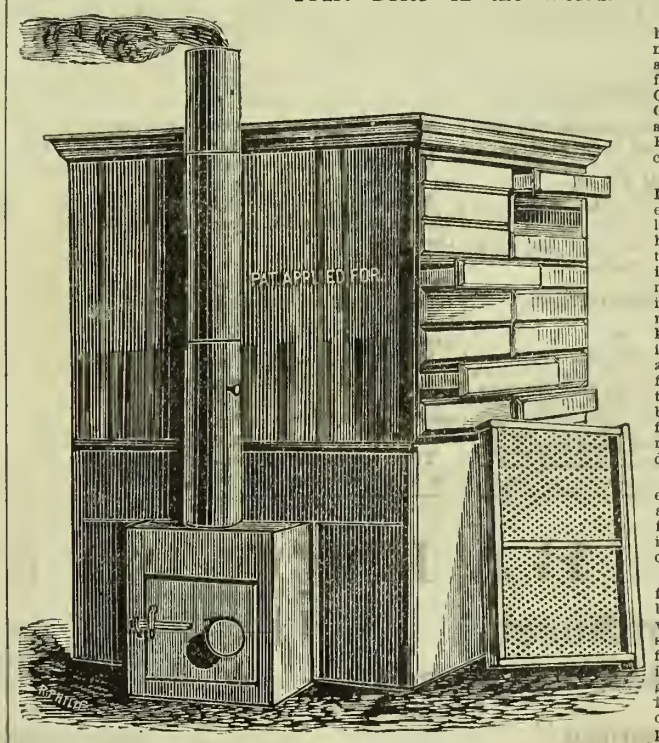
The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not run against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8 Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,

General Agents for the Coast. K and 10th Streets, Sacramento.

THE CHAMPION FRUIT DRIER.

The Cheapest, Most Economical, and the Most Rapid and Easily Managed Fruit Drier in the World.



Drying Fruit and Vegetables has become one of the departments of labor and profit among the industries of California, and we invite Fruit Growers to come and see our CHAMPION FRUIT DRIER, and test it with any kind of Fruit or Vegetables before purchasing.

This Drier consists of a Sheet Iron Furnace, from five to eight feet long, and two feet high, with a partition running horizontally six inches below the top, on the inside, the full length and breadth of the furnace, except a space of five inches at the back end. Beneath this partition the fire is kept, the heat of which passes to the back, and there turns in a range upward through this five inch space, and passes between the partition and top, back to the front end of the furnace and out of a chimney, rising above the chest of drawers.

This arrangement completely equalizes the heat at each end and all along the top of the furnace, so that no one drawer is, at any time, hotter than the others.

The attachment to hold the fruit for drying consists of a box or chest of drawers made wide enough to set out on each side and end about 15 inches from the furnace, and it is inclosed with tongued and grooved lumber, except space in front for the furnace and on each side for the drawers to pass in above the furnace. This Chest is lined two feet high on the inside with sheet iron, and two tiers of drawers come in from each side, supported by pieces passing from one side across the top of, and one foot above the furnace to uprights on the other, and meet in the center over the furnace. The bottoms of these drawers are made of wire cloth, on which the fruit is laid for drying. Over the center of each tier of drawers is a hole four inches square in the top, with a slide to keep it open or closed, as the case may require, and through these openings the hot air passes in a continuous current from the furnace below. The space in front, not filled by the furnace, is closed by a piece of sheet iron fitted over and down on each side, and to this piece there are two ventilators at the side of the furnace where the fire is hottest, to admit air. These two are the only places where air enters, and it is made very hot by the heat of the furnace, as it enters and passes rapidly up through the fruit in the drawers, and out at the ventilators at the top. This simple arrangement keeps a constant current of hot air passing through each drawer, which keeps it in the most rapidly drying process.

The chest of drawers is from four feet high to as high as desired. The drawers occupy about four inches space in the hight of the chest, and are about two feet deep, and 34 inches wide, and hold 25 pounds of fruit. But fruit will dry faster by putting in 12 pounds, and as it dries out a little, double it up. The machine can be built to have from 12 to 108 drawers, and will dry from 1,000 pounds to five tons per day, of green fruit.

We can dry any kind of Fruit or Vegetables in from one and a half to eight hours, and our machine is well adapted for drying Meats and Hops. This Dryer was thoroughly tested on the 32d of May, and many orders were taken from the Fruit Growers that tested it.

PRICES:

No. 1.—12 Drawers, drying	1,000	lbs.	of	Green	Fruit	per	day			$110.00
No. 2.—32 " "	2.000	"	"	"	"	"	"			160.00
No. 3.—48 " "	4,000	"	"	"	"	"	"			280.00
No. 4.-108 " "	10,000	"	"	"	"	"	"			540.00

Orders must be sent to

J. M. KELLER,

Of the firm of Keller & Co., J St., Sacramento City, Agent for California

Parties wishing to purchase can test it with any kind of Fruit or Vegetables.

THE CHAMPION MILK PANS.

Space Occupied in Room, Depth, Capacity, Etc.

No.	Space each set occupies.	Cap'y of each Pan.*	Dpth
0	5 ft 6 in. long 3 " wid	12 gal'ns.	6 in.
1	6 ft 10 in l'ng 3 " 10 " wide	18 gal'ns.	6 in.
2	7 ft 8 in. l'ng 4 " 2 " wide	25 gal'ns.	6½ in.
3	8 ft 7 in. l'ng 4 " 8 " wide	35 gal'ns.	7 in.
4	9 ft 8 in. l'ng 4 " 11 " wide	45 gal'ns	7½ in.
5	9 ft 11 in. l'ng 5 " 4 " wide	5 gal'ns.	8 in.
6	9 ft 11 in. l'ng 5 " 4 " wide	65 gal'ns	9½ in.

*Four pans in set.

NUTTING & WILLARD,

SACRAMENTO, CAL.



OUR CENTENNIAL CAMPAIGN.

THE PACIFIC RURAL PRESS WITH PREMIUMS FOR $4.

Ten Thousand New Subscribers!

We ought to add 10,000 new names to our subscription list this year. There are twice that number of reading farmers on this coast who should yet receive the PACIFIC RURAL PRESS, and who would read it to their pecuniary as well as intellectual profit. We are going to try and enlist a larger army of readers; not by getting out one or two good numbers of our paper and then running it "thin" the rest of the year, but by keeping up superior matter and improving the quality of every issue. That is to say, by furnishing

A Better Paper and Greater Inducements

Our late rates were established some two years ago, when there was this difference in what we furnished each subscriber then and now:

1. Each subscriber paid his own postage. Now it is prepaid out of our pockets.

2. The reading matter, like that of most other weeklies, was largely set leaded (with open lines). Now it is set mostly solid, furnishing the subscriber at least one-fourth more reading in a column. This costs more for editing, composition, proof reading, etc.

3. Formerly we issued the paper (like other 16-page weeklies printed on this coast) uncut. Now it is stitched and trimmed, ready for use on any page, and in a proper form for preserving it for future reference. This also costs us much extra labor and expense.

Now, making the most of our improved facilities, and 20 years of constant experience in editing and publishing industrial newspapers on this coast, we are determined first to publish an agricultural and home journal

Worth its Full Price;

Besides this we propose to furnish VALUABLE PREMIUMS ADDITIONAL TO EVERY SUBSCRIBER, and therefore will give, from July 1st, 1876, until further notice, the following

New Terms for Subscriptions.

PREMIUM A.

With the Pacific Rural Press, (two volumes a year, comprising 416 pages each) postpaid, a new lithographic **Map of California and Nevada,** of handy size, 16x20 inches—showing the official township lines of the surveyed lands of California, and the three fine plate engravings entitled **"Burial of the Bird," the "Flower Gatherer"** and **"Paul and Virginia,"** all postpaid, cash in advance, for.....$4.00.

PREMIUM NO. 2.

With the Pacific Rural Press one year, the above named **Map,** and a really **Choice Chromo** [description of which we will publish as early as the first of July,] all postpaid, for.....$4.00.

PREMIUM NO. 3.

With the Pacific Rural Press one year, the **Map,** and **"The California Patron"** (a monthly official journal, P. of H.,) and the choice of **two of the fine plate engravings—"Love," "Truth"** and **"The Christian Graces,"**—all postpaid for.$4.00.

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With the Pacific Rural Press one year, Dewey's Patent Newspaper File Holder (black walnut) and the **Map of California and Nevada,** all postpaid, for.....$4.00.

PREMIUM NO. 5.

With the Pacific Rural Press for two years, the **Map of California and Nevada,** to any single address in the U. S., all in advance....$6.00.

PREMIUM NO. 6.

With the Pacific Rural Press for six months, the **Map of California and Nevada,** postpaid.....$2.25.

PREMIUM NO. 7.

We will allow one dollar on the first order, amounting to five dollars or upwards, for other publications than our own (including books, papers and magazines not sold exclusively by agents) which may be forwarded to us with the coin by any yearly subscriber of the **Pacific Rural Press.**

PREMIUM NO. 8.

We will credit every present subscriber of the **Pacific Rural Press** with three months, additional subscription for the name of each new subscriber they send us with $4 during the next six months. The new subscriber to be fully entitled to premiums.

PREMIUM NO. 9.

With the Pacific Rural Press (to a *new* subscriber) **12 months, one map and 13 assorted back numbers of the Rural,** postpaid (to any address), for.....4.00

These terms are payable strictly in advance.

Advance subscriptions, in actual clubs of five or more (without premiums), will be received at former rates until further notice.

Persons claiming premiums must order positively the number of the premium they desire. Otherwise, premium No. 1 will be sent.

Subscribers can have their premiums sent to any person they choose in the United States.

One dollar a year must be added for postage on papers sent to foreign countries.

All premiums will be delivered either immediately or within 30 days from our receipt of the order.

Present subscribers can avail themselves of either of the above premiums simply by advancing their subscription one year or more beyond the date of their application for a premium.

No premium will be allowed on any subscription not paid fully one year in advance.

For one dollar extra, received from any subscriber, we will forward to his order the premiums enumerated in either the above numbers.

These terms are liable to be changed, according to circumstances, at any time.

Contents of Pamphlet on Public Lands of California, U. S. Land Laws, Map of California and Nevada, Etc.

Map of California and Nevada: The Public Lands; The Land Districts; Table of Rainfall in California; Counties and Their Products; Statistics of the State at Large.

Instructions of the U. S. Land Commissioners.—Different Classes of Public Lands; How Lands may be Acquired; Fees of Land Office at Location; Agricultural College Scrip; Pre-emptions; Extending the Homestead Privilege; But One Homestead Allowed; Proof of Actual Settlement Necessary; Adjoining Farm Homesteads; Lands for Soldiers and Sailors; Lands for Indians; Fees of Land Office and Commissions; Laws to promote Timber Culture; Concerning Appeals; Returns of the Register and Receiver; Concerning Mining Claims; Second Pre-emption Benefit.

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R. J. TRUMBULL,
419 and 421 Sansome Street S. F.

THE June 17th number of the PACIFIC RURAL PRESS has an illustration of sheep corrals and dip on the Cotate rancho, Sonoma county. It is well worthy the attention of wool growers.—*Southern Californian.*

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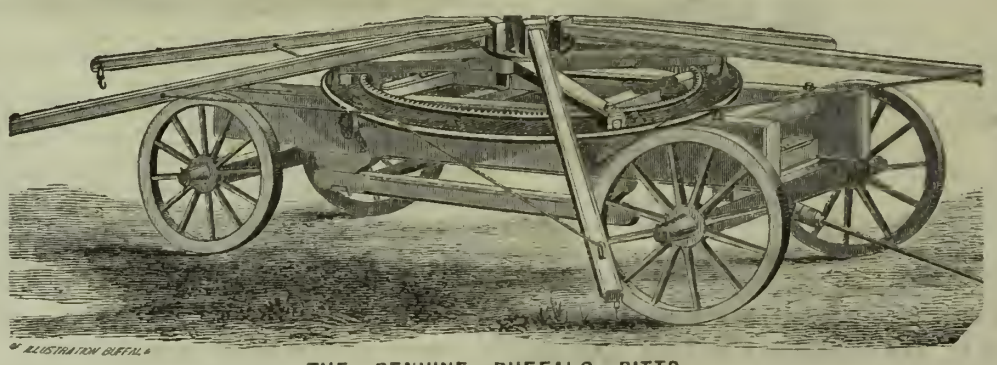
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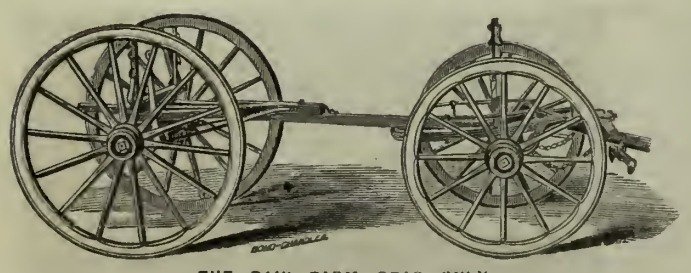
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PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, JULY 8, 1876. [Number 2.

American Forestry.

We printed not long ago a note of the organization of a national society for the promotion of forestry. The objects of the society, as announced, were the collection of accurate statistics concerning forest planting and growth, and the promotion of every effort to encourage the planting and preservation of the forests. The society is apparently in full sympathy with the movement in progress in this State and which we trust will not weary until our hills are crowned and our valleys shaded with thrifty forests.

We print on this page a map of the United States drawn with especial reference to the forest areas. The regions in which the different classes of forest trees grow are marked according to the explanation on the margin of the engraving.

As one looks at the immense areas in which trees flourish, it appears clearly that there is no lack of natural adaptation to the growth of trees. More than this, one must take into consideration the wide stretches of prairie lands on which the trees should flourish to the comfort and profit of the husbandman. We trust the National association of forestry will accomplish much good in developing the timber and shade producing resources.

As we call this subject to mind and show how wide a timber lot pertains to Uncle Sam's farm, we should also call attention to the

Rapid Destruction

Which is being made of the valuable possession.



THE FOREST AND PRAIRIE LANDS OF THE UNITED STATES.

Some of the figures given to show the enormons annnal consumption of wood are startling. For example: The locomotives on the railroads of the United States annually consume as fuel as much wood as would represent 25 years' growth on 350,000 acres. In order to supply the railrosd ties used annually upon the roads now in operation, the timber of 30 years' growth must be removed from 68,000 acres of the best natural woodland. The telegraph lines now in operation require for repairs that at least 250,000 trees be cut annually. Even the manufacture of such insignificant things as shoe pegs and matches requires in the aggregate a great deal of lumber, amounting in the former case to 100,000 cords of white birch, and in the latter to 230,000 cubic feet of the best pine. An estimate has been made that "during the 10 years between 1850 and 1860, 30,000,000 of acres of forest covered land were cleared in the United States for agricultural purposes, or 10,000 acres a day for each working day during that time." These are some of the least thought-of drains upon our timber supply, and yet how large they are. If we but bring to the estimate the enormous consumption of wood for fuel and timber for building it will be difficult for the mind to grasp the annual reduction of the tree census of the country.

The Beneficent Effects of Forests.

Forest culture has progressed so far in some parts of the world that we are able in some degree to appreciate the influence of the forests upon the climate and productiveness of the regions in which they prevail. We desire to present a few facts in this connection. Let us instance first the value of the shelter against injurious winds. According to M. Becquerel, the physicist, who had investigated this subject, perhaps more than any other, in the valley of the Rhone, it is found that a simple hedge, six feet high, is sufficient protection for a distance of about 50 feet. The clearing of the Appennines is thought to have considerably affected the climate of the river Po, in Italy. Mr. Geo. P. Marsh, quoting from an Italian publication, says: "In consequence of the felling of the woods on the Appennines, the Sirocco prevails greatly on the right bank of the Po; in the Parmesan territory, and in Lombardy, it injures the harvests and the vineyards; sometimes even ruining the crops of the season. To the same cause we may ascribe the meteorological changes in the precincts of Modena and Reggio. In the communes of the districts where formerly straw roofs resisted the force of the wind, tiles are now hardly sufficient; in others, where tiles formerly answered for roofs, large slabs of stone are now insufficient; and in many neighboring communes the grapes and the grain are often swept off by the blasts of the south and southwest winds." There are other instances on record where the planting of numerous shelter-belts has relieved the inhabitants of southern Europe from the ravages of the dreaded Sirocco. Mr. Marsh gives several instances much in point. He says: "The following well attested instance of a local change of climate is probably to be referred to the influence of the forest as a shelter from the cold winds. To supply the extraordinary demand for Italian iron occasioned by the exclusion of English iron during the time of Napoleon I, the furnaces of the valley of Bergamo were stimulated to greater activity. The ordinary production of charcoal not sufficing to feed the furnaces and forges, the woods were felled, the copses cut before their time and the whole economy of the forest deranged. At Piazzstore there was such a devastation of the woods and consequently such an increased severity of the climate that maize no longer ripened. An association, formed for the purpose, effected the restoration of the forests and maize flourishes again in the fields of Piazzatore." Similar effects have resulted from plantations made in Belgium.

In an article published in the *Revue des Deux Mondes*, quoted by the same authority as before, it is said: "A spectator placed on the famous bell-tower of the cathedral of Antwerp sees, not long since, on the opposite side of the Scheldt only a vast desert plain; now he sees a forest the limits of which are confounded with the horizon. Let him enter within its shade. The supposed forest is but a system of regular rows of trees, the oldest of which is not 40 years of age. These plantations have ameliorated the climate which had doomed to sterility the soil where they are planted. While the tempest is violently agitating their tree-tops, the air a little below is still, and barren sands have been transformed under their protection into the most fertile fields."

In certain districts of Sweden where the woods have been cut away the spring comes about two week later than formerly. There are numerous instances on record where the climate of a place has been materially changed by clearing it of trees. Spring is thus retarded and earlier frosts appear in autumn.

Trees in California.

We expect to see, when the National society compiles its statistics, that California stands foremost among the States which deserve praise for tree planting. During the last few years there has been a widespread spirit of tree planting, and seedlings have been put in by the million. We are introducing new trees and have found many which are admirably suited to our climate and soils. We have experienced also the beneficial effects of shelter. In some of our southern counties rows of trees hold back the ocean winds and render the protected orchards doubly fruitful. Our market gardeners work behind a wind-break of their own planting and secure very early growths of vegetation. By the beauty of trees many a barren waste has been transformed into a grove and many a hot highway has been made an avenue of grateful shade. But still there is room for wider planting and we look with real favor upon any movement which will promote the good work. According to the census of 1870 the amount of woodland in the United States was about 380,000,000 acres, and the whole area of the country, improved and unimproved, was 2,311,544,959 acres. Of all the States, shown in our map, California has the smallest proportion of woodland to her whole acreage; while some States have a percentage as high as 50 and 60, California has but five. Thus it appears that there is good call for our activity in tree planting, and we trust that each recurring year will see more and more of our waste land turned to profit by the planting of a salutary and valuable growth of trees.

Aqua Tibia.

We lately called attention to an advertisement of an estate for sale in part in San Diego county. Alluding to the same property, the San Diego *Union* says: After a hot afternoon's ride, our party of three arrived about sun-set at "Aqua Tibia," the residence of Major Lee H. Utt, where we met a hospitable reception from the Major and his accomplished wife. The situation is a beautiful and striking one. A level bench of 30 or 40 acres, descending very abruptly in front 100 feet or more, then sloping gradually to the San Luis river, a mile away; back of it the steep ridges, deep gulches and pine clad peaks of Smith's mountain, one of the longest and highest ranges in the county, extending from Warner's ranch westward 25 miles to the Temecula. The house stands right on the edge of the steep declivity overlooking the valley. It is a long, low, white-washed structure of adobe, with an esplanade built out in front of it, and was partly built by the old Indian chieftain "Manuelito," many years ago. It looks at a distance like one of the castles on the Rhine. Back of it is a level piece of ground, irrigated by one of the clear rushing mountain streams, and well improved with fruit trees, vines, alfalfa, gardens, etc. There are some immense fig trees, the largest in San Diego county. One feature of the place is a warm mineral spring, which gave the name "Aqua Tibia," meaning tepid water, to the place. Over it is a bath house, and a dip in its soft water is very refreshing after a hot day's ride. Major Utt has a large apiary, and the range of feed is very fine, plenty of white sage and other honey producing plants. The house commands a very extensive view up and down the river for many miles, with high rough mountains on either side; the green cottonwoods and sycamores along the river, the bright ribbon of water shining in the broad bed of sand, and the mountain ridges covered with black looking brush or clumps of pines. It is a very romantic and striking situation.

BURLAPS IN PHILADELPHIA.—In answer to a request of ours, Mr. D. M. Locke made inquiry in Philadelphia for burlaps. He reports that dealers say there are no burlaps manufactured there. Mr. Locke writes that 40-inch 10¼ oz. burlaps are quoted at seven and one-half cents per yard; 15-inch (same quality) eight and one quarter cents per yard.

FIRST JUNE CARGO OF NEW WHEAT.—W. A. Halcomb & Co. finished loading the *Winged Hunter* on Tuesday, June 27th, with new wheat. This is the first full cargo of new wheat ever shipped from this port in June.

CORRESPONDENCE.

Botanical Excursions.

[By J. G. LEMMON.]

No. 3.—The Big Trees Revisited—Criticisms and Consequences.

"Mail! Webber lake mail!"

The trapper's voice was never more welcome.

"Come down, come in," I cried, flying to the door and throwing it wide open.

Leaving his snowshoes up on the high white plateau, he descended by the ice-floored steps cut in the snow to the porch, and tossed a large package of letters and papers into the room.

To the devotee of a science whose better prosecution often requires months of secluded study amidst out spread subjects, scarcely a visitor is endurable save the mail carrier.

While eagerly discussing the local news with the weary mountaineer, I placed substantial food and a cup of hot coffee before him, then as eagerly seated myself to devour my letters. Reserving those from the good Dr. Gray until the last, I tore away envelopes and reveled in a right royal feast. Messages of remembrance from soul-knit friends in the valley below, lispings of love from the left and lone, tokens of friendship from comrades on late excursions, careful inquiries from devotees of the amiable science of botany, propositions to exchange specimens from new and distant correspondents, warm congratulations from patrons who know of the long struggle and its glorious reward, messages of cheer from eminent and venerable scientists. Oh, the feast was a full requital for the long dearth which gave it zest. At last I reached the viands—the double-shected letter from Dr. Gray. His letters always thrill me with emotion. In brief, but plain terms, they reveal the warmest heart, the kindliest interest, the most helpful self-denial. Reverently I drew the sheets from the envelope and read, first, a report of my last flowers sent him. With quickened pulse I noted the new species found, and read the comments thereon and the names, conferring more honors upon assisting friends. Next came suggestions as to territory for further research, practical directions for gathering valuable seeds and plants, then congratulations upon past successes, hopes for the future, and envyings of my opportunity to roam the Sierra at will in summer, then to retire to Webber lake and study in winter, etc.

A length I reach the words, "I lately read your 'Scenes in the High Sierra.'" (My heart throbs violently at thought of the high compliment.) "They please and interest me." (Tumultous emotion, expressed by springing from my seat and capering around the room.) "They are racy and artistic." (Ecstatic delight! chairs, tables and libraries are surmounted, and I perch upon a high cabinet.) "But," he continues, "in your graphic description of the Big Trees, like California writers in general, you fall into a great error." (Heart stops with a pang!) "Over 3,000 years old!" he quotes. "Did you count the rings?" ("Fool that I didn't!" I hiss, sliding down to the sofa.) "Did you ever see any one who did?" ("That lying report of Hittell's!" I gasp, jumping to the floor and stamping a figure of the carpet.) "It is only writing large after the fashion." ("Consternation!" I cry, sinking upon the sofa.) "That is an over-statement" ("Horrors!") "which I have been fighting" ("Zounds!") "for the last 25 years." (Speechless I roll upon the floor.)

* * * * * *

Going For the Facts.

The summer following, that is, in 1875, I took a trip of 400 miles to revisit the Big Trees, count their rings and bring away sprays, cones, seeds, bark and wood sections for the Centennial. I visited several groves, closely examined hundreds of trees, especially giving attention to the fallen and shattered monsters, generally larger than living trees of the same grove.

The great *Sequoias* are monsters indeed for size and magnificent in their columnar appearance; they are well worthy a trip across the continent to behold, but why exaggerate their age? The truth is strange enough. "Over-statement," Dr. Gray mildly puts it. It is, indeed, a wonderful deviation from the truth when to large figures we add double their sum. From this time forward I must help fight the "over-statement." The battle will be long and fierce, no doubt, for the story of 3,000 or 4,000 years is very proudly related and never fails to excite interest; and it is repeated in nearly every guide book for tourists, moreover reiterated by eminent travelers and close observers, including John Muir, than whom none gives us such charming views of mountain scenery, such picturesque forest studies. But let the truth always be told, searching for it, if need be, under the most deceptive appearances. I scold myself daily because, for want of time, I took the figures of reputed authorities and gave currency to the big story of the Big Trees. Let me retract so much of last year's "Scene II, The Big Trees" as was carelessly based upon their reported great age of 3,000 or 4,000 years, and substitute the following cold facts and estimates. I substitute the true figures cheerfully, gladly, triumphantly. The big trees are but 1,200 to 1,500 years old, and I am glad they are not older. There is proud satisfaction in the thought, but let me repress my joy and its reason for the present and proceed with the cool facts.

At the Big Trees.

On the 1st of September, 1875, I arrived at the famous Mammoth Grove of Big Trees in Calaveras county, and at once commenced careful observations.

First, a quiet, reverential walk among the tall fluted columns, my spirit dumb with wonder, my mind raised to sublime conceptions, my reason almost persuaded that any large story of the great *Sequoias* must be true. Round and round, in and out among the vast trunks the well-worn path leads. Here and there a long flight of steps enables the visitor to reach the upper side of the fallen trunks, where a most impressive view and delightful promenade may be enjoyed. Marble slabs imbedded in the soft bark, high up on each tree, bear its name and generally the initials of the namer. Near the road, almost the first to greet the visitor approaching from the north, stands a group of noble trees bearing the names of Henry W. Longfellow, Prof. John Dana, Dr. John Torrey and Prof. Asa Gray. During this first half-day of silent gazing, I found myself frequently returning to this group of scientists with a sublime poet added, and trying to commune with the master spirits they commemorate. During my last call a cone from the lofty crown of "Prof. Asa Gray" fell at my feet; eagerly I seized it and wrapped it in paper; another and another followed. The squirrels were harvesting, so the seed must be ripe. I drew my army revolver and fired a round of six cartridges up into the crown, rewarded by the fall of a limb bearing a dozen cones. As I bore away the beautiful little cones with their tiny, parsnip-like seeds, I thought how much this precious fruit symbolizes those richer fruits which that other Professor Gray showers upon all who but ask his bounty. Hard at work in the great herbarium at the Cambridge university, he is devoting, perhaps, the last herculean energies of a life filled with toil to the completion of our California Botany. Receiving no salary while on this extra work, and hiring assistants in special fields, he toils almost incessantly, ever the master mind to direct research, ever the umpire to decide knotty points, yet ever the kind patron, ready to turn aside, examine the plants of the young collector and help the bumblest applicant for knowledge.

Then the good doctor's tenacity for truth is so strong! No big stories for him, no flights of fancy, no careless writing! I think of this with bated breath, compressed lips, clenched hands and firm tread as I prepare for work in earnest on the morrow.

Age of the Big Tree Stump.

The stump of the very large tree which was bored off with pump augers in 1852 to form the floor of a house, affords a fine opportunity for counting, since it is so evenly smoothed off, but still more time is necessary to do it accurately than most observers allow themselves. This tree should certainly be considered a fair sample of the oldest of the present generation, for it is one of the largest ever seen. Its circuit at base is 97 feet by my tape line, held at one end by a Puritan and master builder from Boston. Longest diameter without bark, five feet above the base, 24 feet 10 inches. Shortest diameter, 22 feet eight inches. The bark averages 18 inches in thickness, making the entire longest diameter of the tree at five feet above base, over 27 feet. A few other trees are met with measuring as much or more at base, but they are generally swollen outward and hollow like the shaft of a light house. This monster tree was as straight and sound as a candle, hence it was undoubtedly the largest perfect tree ever yet seen.

I spent nearly a day counting the rings of this stump, and of the butt cut of the tree lying near it. I counted carefully both ways, putting in pins to mark the place of hundreds. The stump being a little irregular in consequence of its near roots, I counted in three places along three equidistant rays. The first count was 1,260 rings, the second count was 1,258 rings and the third count was 1,261 rings—average age, 1,260 years. Counting on the butt, cut 24 feet from the base, the rings were of course a few less, 1,242 in number, but all very plainly discernible, and presenting exact uniformity in their decrease in thickness from heart to bark. I availed of this uniformity of decrease by establishing, after many counts of different trees, a rule for determining the mean number of rings to the linear foot, and fixing the locality on a cut across these trees where the rings are of average thickness. That point is just one third of the distance from the bark to the heart. At the heart the grains are often three-eighths of an inch thick, at the bark as thin as paper. The average, as determined by countings of all the logs in the grove which have been cut across, some half dozen or more, clearly established the rule that the rings of average width are found one-third of the way from the bark to the heart. This rule proved very useful afterward in estimating age of broken trunks.

Age of "Hercules."

This monstrous tree was leveled to the earth by a gale in 1862. His body has been repeatedly cut across by an ingenious device, and the timber manufactured into relics and carried away. He was 285 feet high, and now measures 14 feet in diameter 25 feet from his roots. A careful count of his rings showed only 1,232 years. Eighty-eight of these rings, the average number to the half foot, just covered the space of half a foot at the distance of two and one third feet from the bark, which is one-third the way to the heart, as seen above. This tree is often reported as over 3,000 years old.

Leviathan,

Another prostrate monster, is about the same size, being 270 feet long, and 14 in diameter, but his body is not cut across or so broken as to reveal his rings.

The Father of the Forest.

Armed with the rule, derived as above stated, on the third day I approached the shattered trunk of this famous tree, fabled to have sprung from the earth soon after the deluge of Noah, over 4,000 years ago.

This huge patriarch has been shamefully overrated every way—his size given at 40 feet in diameter and his length at 450 feet. Exact measurement shows the diameter as only 18 feet at a distance of six feet from his roots, and his length about 300 feet. His trunk is broken or burned out in places, thus exposing cross sections where the rings of annual growth may be examined. With a hatchet and sharp knife I smoothed spaces of wood in three places, widely removed from each other along the trunk, but each one-third of the distance between the bark and heart, and thereon counted one foot of rings, with the result following: First count, 66 feet from roots, 232 rings; second count, 186 feet from roots, 254 rings; third count, 210 feet from roots, 276 rings. The diameter of the tree at each place must be considered, and is as follows: First place of counting, 12 feet; second place, 11 feet, and the third, 10 feet. Now the estimated whole number of rings (age), at each place is obtained by calculating, viz:

232x6,	semi-diameter at 1st place.....	1,392 Rings
254x5½,	" " 2d "	1,342 "
276x5,	" " 3d "	1,380 "

Adding these products and dividing by the number of counts, the average of rings (age), is 1,371⅓ years only. Probable full age at base, 1,500 years.

One oft-repeated story is true, however; that of a passage through a part of his body large enough to admit horsemen. This passage burnt out of his heart commences at a point 66 feet from the roots and extends 120 feet, coming out where was once a knot-hole, now enlarged by relic seekers to a wide doorway. I saw several ladies ride horses of medium size through this wooden tunnel, and one day while passing, riding one of my horses and leading the other packed with bulky specimens, I turned into the cavity and rode safely through. The ceiling overhead is four to six feet thick, so the grand promenade for visitors above is perfectly safe.

South Park Grove.

This grove contains about 500 trees, some of them of the largest class. One, the home of "Trapper Smith," is a vast swollen trunk at base, 90 feet in circuit and 30 in diameter. The "Livery Stable," which has received 22 horses at a time into its hollowed base, is 84 feet in circuit, and the "Primitive Church" is 81 feet. A fallen tree is 15 feet in diameter 20 feet from the roots. A cavity is burnt in it sufficient to comfortably shelter 25 or 30 horses, or to afford the passage of a Concord coach and its four-horse team for over 200 feet. Another, near "Trapper Smith's Cabin," and used by the tourists as a temporary shelter for their horses, is 16 feet in diameter and hollowed for a long way. These are certainly fair samples of the largest *Sequoias* both living and fallen, and the dimensions above given do not materially differ from some published statements, but counts and estimates of their rings reveal only 1,200 to 1,500 in number.

Other groves visited afforded exactly corroborative evidence, that though the dimensions, being easily determined, are often given accurately, the age has been generally grossly exaggerated.

As late as February last the writer saw a specimen of *Sequoia* in the Central Pacific railroad collection at San Francisco for the Centennial exhibition, which was sent from the Calaveras Mammoth Grove, and is marked "four thousand years old."

Triumphant Conclusions.

Now I firmly believe with Dr. Gray that this is an "over-statement," and, as I said, I am glad that it is such. Let India with her banian tree—which by the way is a mass of trunks, not a single one—take the palm for growth of 4,000 years, let African baobab trees reach back still nearer to the Garden of Eden, let Palestine boast of her cedars of Lebanon growing since Moses' time, and let Australia present upon every exploration by the close observer trees of undeterminable ancient origin; all these trees of the old world almost, without exception, are slowgrowing, fine-grained, stunted, gnarled, decrepit, unsightly old relics of past ages—only interesting because of their great age.

The famous baobab, *Adansonia digitata*, is the largest in circuit at base of any tree yet known, but it is only 70 to 80 feet high. The cedar of Lebanon, with annual layers, so fine that a lens is necessary to distinguish them, is similar in shape, the trunk an abruptly tapering spike.

Now all observers admit that the California Big Trees, with their vast straight fluted columns, 200 to 300 feet high and their immense crowns of finely divided, evergreen branches, are the most symmetrical and magnificent in form, the tallest and actually the largest in dimensions of any yet known in all the world. How satisfying to the pride of a true American, to reflect upon the inference derived from this comparatively new fact—formerly a most unwelcome one to the thoughtless, insomuch that loyal Californians prove their loyalty by declaring their belief in the great age of the Big Trees; hence the warfare to which Dr. Gray refers, and the great but pardonable assistance given to the erring side by eminent writers through their praiseworthy love of country.

But science always searches for the truth. Sooner or later the facts will come to be believed and they are always best. And the truth, in this case so long repressed, is most welcome because it gives foundation for the most reasonable and enthusiastic loyalty. Why, these grand giant trees are mere vigorous saplings yet, only 1,200 to 1,500 years old! Ages hence full-grown trees may be seen 50 feet in diameter and 1,000 feet high, only limited by the proximity of brother trees and the depth of the valleys where found. We can't expect them to be so unneighborly as to choke their brothers to death, nor to rise above the leveling winds that sweep over the canons of the Sierra. So let the old world pride itself upon old things, old nations, old creeds, old arts, old customs, old monuments; we of America rejoice that this is a new, unfinished world, with young yet colossal vegetable growths, strange yet beautiful animal forms, modern yet matchless peoples, adolescent yet full-fruit-bearing institutions, unprecedented yet unimaginable destinies!

"For still the new transcends the old,
In deeds and wonders manifold."

Finishing Centennial Work—Adieus.

Dear reader, again adieu for a reason; my other excursions for 1875 were short runs here and there for isolated plants, and a flying trip late in the season through these beautiful northern valleys again, just to collect the autumn flora and tree specimens for the Centennial. As the season advanced the labor increased, employing my utmost energies to secure and prepare a creditable set of specimens of all the Sierra plants known to me, including 25 or 30 collected lately for the first time.

In September I hastened up to the forests around Webber lake to get sections of trees; that district embracing nearly all the trees of the Sierra and some species rarely seen elsewhere. With a hired assistant I cut down representative trees, often very large ones,—the *Picea amabilis* was 30 feet in circuit,—and took out uniform sections exhibiting bark and all the layers of growth to the heart, also cross sections of saplings, young stocks with stubs of limbs, leading shoots of old trees, blossoming and bearing twigs, cones, acorns, etc., so that the visitor by examining a set of specimens of any species can readily get an idea of the tree. These tree sections filled six large boxes and weighed over a ton. Despatching them with much trouble through the mud of the late fall season, and prepaying freight charges, I then set to work upon the flowers collected during the entire season. There were thousands of them, making three wagon loads, and were scattered all through my bales of papers just as gathered.

To arrange them into families at least 500 large receptacles were necessary. Three weeks of hard, swift work provided beautiful and appropriate herbarium rooms, and three more placed the plants hurriedly but carefully in their respective pigeon-holes. Another week brought out a choice selection of representative plants, packed them into a large box and despatched them after the tree sections, but by express, prepaid, to Dr. Geo. Vasey, Botanist, Agricultural Department, Washington, to be exhibited at the Centennial. During the week following I wrote these "Botanical Excursions" for the PRESS, then started for southern California, to meet and work with Dr. Parry during the winter and spring season of this commemorative Centennial year.

Though my work performed in good faith for the love I bear my adopted State was most arduous and expensive, costing at common rates of wages and for coin paid out nearly $2,000, for which I received but $400 in currency, yet I have the satisfaction of knowing that California will have a fine set of her flora at the great exhibition, which Dr. Vasey declares "is very satisfactory, but causes me much regret that you had so much expense upon them."

Dear, patient reader, good-bye, until we meet at the Centennial—or *somewhere*. Perhaps only in the RURAL, but anywhere, always welcome.

TO TAKE IMPRESSIONS OF LEAVES, ETC.—M. Bertot, of the Paris Academy of Science, has just made known a simple method of taking impressions of plants, requiring only a large sheet of paper, some olive (or other) oil, black lead, ashes and resin (or colophony). The paper is first lightly oiled on one side, then folded in four so that the oil may filter through the pores, and the plant may not come into direct contact with the liquid. The plant is placed between the leaves of the second folding, and in this condition pressed (through other paper) all over with the hand, so as to make a small quantity of oil adhere to its surface. Then it is taken out and placed carefully on white paper; another sheet is placed above (since two impressions can be taken), and the plant is pressed as before. On now removing it an invisible image remains on the paper. You sprinkle over this a quantity of black lead (or ashes, etc.), and distribute it in all directions, as in applying sand to writing; the image then appears in all its parts. With an assortment of colors, the natural colors of plants may be reproduced. To obtain fixity, resin is added to the black lead (previously) in equal quantity; the impression is fixed when it is exposed to a heat sufficient to melt the resin.

The Dairy.

Dairying in California.

Hon. X. A. Willard, whose name stands foremost among able dairy writers, gives in a very emphatic way his opinion in favor of the usefulness of the recently organized California dairymen's association. In the latest issue of the *Rural New Yorker* he writes as follows:

On the 20th of May last leading dairymen of the Pacific coast assembled at the Prodnce Exchange in San Francisco and organized an association nnder the name of the "California State dairymen's association." This is a step in the right direction, and, judging from the numbers present and the interest taken in the preliminary meeting, a great impetus will be given to the progress of dairying in California, under the auspices of this society.

The discussions, essays and addresses which will now be had at the meetings of the California dairymen's association will give ns more knowledge concerning the dairy resources of the State, while the introduction of the factory system and the new processes of bntter and cbeese making will be of the utmost advantage in developing this interest in the Golden State.

We are glad to see that Prof. E. J. Wickson, late of the Utica *Herald*, but now of the PACIFIC RURAL PRESS, has been chosen Secretary of the association. His experience in the East in the management of dairy conventions will be useful in pntting the California meetings on a successful footing, and we congratulate our friends on the coast that they have inaugurated a movement which will be of great value in developing an important industry for California.

Dairy Advantages of California.

One great advantage which the coast lands possess for dairying is a low, even temperature, averaging abont 60 deg. Fah. during summer and winter, and snbject to no extremes of heat and cold like those prevailing in the Middle and North Atlantic States. The winters there are so mild that cattle do not require to be housed, and during most of the time they can procure sufficient sustenance in the field; indeed, cattle there are often wintered without a particle of food other than that which they pick for themselves over the ranches, though it is not considered good economy to allow herds to thus shift for themselves during the first part of the rainy season, as the rain washes out the nutritive elements of the old grasses, while the new vegetation springing np is flashy, or too immature to afford requisite nourishment for the thrift and well-being of the animal. Hence, in November and December it is considered good economy to eke out tbe pastnres by giving the herds a daily allowance of fodder.

In comparing California, as a dairy region, with grazing lands on the Atlantic slope, the winter and spring mon hs correspond with our best grazing season. From the first of Jannary to June the grasses grow in great luxnriance, July, August and September correspond witb onr fall and early winter, while November and December, when stock require a little feed, may be set against our six months of cold and snowy weather. It is evident, so far as climate is concerned, so far as the storing of cattle food and the necessary breadth of land for growing snch food, the advantages are all in favor of the dairy lands of the Pacific. But, on the other hand, our nearness to the markets of the world, the permanency of our grasses, our established system and skill in manufactnre, must, in a measnre, compensate for the rigors of the climate and other disadvantages which do not obtain in more favored sections.

Mr. Willard's Visit to Point Reyes.

In 1870 we spent several days in going over the extensive butter ranch of Mr. Chas. Webb Howard and the Shafter Bros. This estate on Point Reyes covers some 75,000 acres, and at the time of our visit there were about 3,000 cows in milk, whicb were divided up into 20 dairies, averaging about 150 cows each. The different farms, or ranches, were substantially fenced in witb redwood pickets, six f et long, driven into the ground about six or eight inches apart, with a rail placed horizontally two feet from the top, to which each picket is nailed. As there is no frost here, fences built in this way, Mr. Howard informed us, would stand, without needing repairs for 20 years. About 100 miles of fence had been bnilt upon this estate, and good roads were made over the lands, so that the different dairies could be easily reached.

In 1870 the forage depended npon, over the Point Reyes estate, was the wild oats and tbe "bunch grass." This last is exceedingly nntritions and stock thrive upon it at all seasons, except, perhaps, at the beginning of the rainy season, wben for a few weeks its nutritiousness is impaired from the canses which have been previously named.

The quality of the butter made on the Point Reyes estate was very fine, which shows tbat the forage natural to this coast is not objectionable for making good milk.

Comments.

Mr. Willard remarks above that the "discussions, essays and addresses which will now be had at the meeting of the California dairymens' association will give us more knowledge concerning the dairy resources of the State." This is a point which we have urged before, because we know the inquiry which prevails among Eastern dairymen concerning the dairy adaptation of onr State. We fully believe the labors of the new society will not only pnt our own dairymen in possession of mnch valuable information, of which there is now no record, but will show up in the eyes of all this important interest of our State.

Horticulture.

Mulching the Fruit.

EDITORS PRESS:—Those who cultivate fruit in the dry open plains need protection from onr dry northers and the rays of the heated sun. At the present time we have had a long hot spell, withering the leaves and drying up the soil. Vegetation is in a withered state. A great preventive of this condition is mulching. By thorough mulching, your fruit, flower and vegetable garden can be rescued and your labor and expense saved, that would otherwise be lost. As the season for irrigation is at hand, those who have mnlched find a great saving in time and less water is required. There is also better growth, finer in quality and larger in quantity by the operation of mulching. Even in the small fruit culture, as the strawberry, a benefit is derived from it. By keeping the crown of the plants well hoed np and all tbe loose material drawn around them, and by frequent cultivation, keeping the soil open and porous, and breaking the hard crnst that is formed by constant irrigation, much better results are attained than by less careful culture.

The raspberry, a shallow rooter, requires the same treatment. The soil soon loses its moisture, leaving the tender rootlets near the surface, and if not preserved by constant watering the tender roots die. But by covering the snrface with some coarse rotten material you prevent the exposure of the roots and retain moisture. You therefore save yonr time by causing less frequent watering and less hoeing, and your fruit will be larger and your bushes more productive.

The blackberry is a deeper rooter than either strawberry or raspberry, sends its roots far and wide for nourishment. But it is also benefited by mulching, giving you in return finer and larger fruit for your pains. In cultivating use the cultivator and do not plow so as to cut the roots, thereby causing new shoots to spring np in the way. A good mulcbing prevents the growth of weeds. With frequent cultivation and good supply of water you apply the only requisites for a fine yield of the berries. The health of the gooseberry and currant bushes is better and the yield is better. Stone fruits of all kinds are benefited and a liberal application of mulching material around them preserves the trees in hot seasons.

Application of mulch should be made in the fall after all the dead wood and branches are cleaned off, leaving the surface clean. Apply thick on each side and the rains of wiuter will wash the ingredients round the roots, feeding them with its rich substance. G. R.

Saoramento, June 17th, 1876.

Top Dressing for Orchard Ground.

Top dressing can be applied to orchard trees on grass with the perfect confidence tbat improved crops will follow, although the grass itself may be the first to show the benefit of the top dressing. There is before us an instance of an orchard of apple trees planted on thin, gravelly soil; the trees were covered with moss and stunted, although not by any means old, (about 25 years). The grass of this orchard had been mown year after year for the sake of tidiness, thus exhausting the soil more than the trees did. A rather rongh system of top dressing was inaugurated at a sacrifice of appearances, all sorts of refuse material were wheeled or carted into the orchard and spread over the surface, such as sifted coal ashes, old decayed tan, the old soil and rubbish from the potting bench, sweepings and scrapings of road, etc., until a considerable th ckness of material had accumulated. The first result was a tronblesome growth of grass, which was kept down with the scythe, but not cleared away—on the contrary, allowed to rot on the surface. By and by the trees began to emit quantities of young roots from the lower parts of tbeir boles into tbe top dressing, and the second result was tbat the next crop of apples was considerably larger and of a much improved quality; the branches were severally thinoed to admit light and air, well dusted with quicklime to remove moss and lichens, and they were amply repaid annually by this simple attention.—*The Garden.*

CALIFORNIA GRAPES AT THE CENTENNIAL.—From October 10th to 14th is the period especially designated by tbe Commission for the display of grapes at the Centennial; and as California can easily excel every other locality in tbe Union, if not in the world, with this particular fruit, her large grape growers should make their oalculations in good time so as to make a large and expressive exhibit of this luxury for which their vineyards are so celebrated. The Golden State has not, thus far, particularly distinguished herself at Philadelphia, even in her specialty of precious metals; but she will have an opportunity to redeem her character during the grape display, a month before the Centennial closes.

Bees.

Los Angeles Beekeepers' Meeting.

W. Mnth Rasmussen, Secretary, furnishes the following report of the Los Angeles Beekeepers' meeting, held June 17th. The President, J. P. Bruck, called the meeting to order. The minutes of the last meeting were read and approved.

Mr. Davidson read a paper ridiculing the extravagant notions of many persons about the profits to be realized in the bee business with little or no labor and expense.

Mr. Levering spoke of hives melting down, and the best way of preventing this and of shading the hives was discussed by Phillippi, Harmon, Stone and others.

Capt. Gordon introduced Mr. J. S. Harbison, of San Diego. Mr. Harbison favored the society with remarks upon the best way of obtaining adequate returns for our products. He said the present prospect for the sale of honey was gloomy, because at this time of the year but little honey is consumed. He advised beekeepers to keep their honey till September, October and November, when honey will be in better demand for actual consumption. In regard to the business in San Diego county, Mr. H. said there would be but little sage honey this year. The principal harvest would be from snmac and buckwheat greasewood. There were at present 20,000 hives in the county, and he probable product this year would be 1,000,000 pounds. Mr. H. spoke of the importance of keeping within the truth in regard to statistical reports about the business, mentioning instances of great injury occasioned by false reports.

A general and very interesting discussion ensued in regard to adopting a scale of prices for the different grades of honey, grading and classifying, best way of shipping and amount to be shipped to different points, and sampling and storing of honey.

Marketing Honey.

The following resolution was adopted:

Resolved, That a committee be appointed by this association to act in concert with like empowered committees from adjoining counties, if possible, or for itself if necessary, to investigate the best manner of disposing of our honey, to ascertain reliable houses in the principal cities of the East, to fix a scale of prices for the various grades of honey, to fix the time and amount of shipment to each point and to gather all possible information by correspondence or otherwise in regard to these matters.

Messrs. Butler, Davidson, Gordon and Levering were appointed members of this committee.

The following resolution was proposed and adopted:

Resolved, That in the opinion of this society, No. 1 comb honey, in section boxes, is worth 18 cents, and extracted honey of same grade is worth 10 cents per pound in wholesale lots.

It was resolved that the members of this association tender their thanks to Mr. J. S. Harbison for his instructive visit with us.

Mr. Davidson extended an invitation to the society to meet at his place, whereupon it was resolved that the next meeting be held at Mr. Davidson's apiary on the third Saturday in July.

Three new members were added to the association.

On motion the meeting then adjonrned.

The Swine Yard.

The Origin of the Berkshire Hog.

The "American Berkshire association," at Springfield, Ill., whose report we noticed recently, offered in the spring of 1875 a premium of $100 for the best essay on this breed of swine—and that written by Mr. A. B. Allen was awarded the prize. Mr Allen in his preface says his information is obtained from personal researches in England and this country, as well as from his own long experience in the breeding and management of this description of swine. We quote from Mr. Allen's essay his account of the origin of Berkshires:

The Original Breed of Berkshire.

Tradition, and the earliest published accounts of what has long been particularly distinguished by the name of Berkshire swine, represents them, down to about a century since, as among the largest breeds of England, weighing, full grown, from 700 to 1,000 pounds, or more. The "Complete Grazier" describes one, in 1807, as weighing 113 stone, (904 pounds). This was exhibited, with others, by Sir William Curtis, at the cattle show of Lord Somerville, in that year. Johnson, in his "Farmer's Encyclopedia," London, 1842, says tbat they weighed at that time from 50 to 100 stone (400 to 800 pounds.) The latter of these, doubtless, were of the improved breed.

Originally they were represented as being generally of a buff, sandy or reddish-brown color, spotted with black, occasionally tawny or white spotted in the same manner. They were coarse in the bone; head rather large, with heavy flop ears; broad on the back; deep in the chest; flat-sided and long in tbe body; thick and heavy in both shoulders and hams; well let down in the twist; bristles and long curly hair, with rather short, strong legs. Their meat was better marbled than that of any other breed of swine in Great Britain—that is, had a greater proportion of lean freely intermixed with fine streaks of fat, which makes it much more tender and juioy than it would otherwise be. They were consequently, from time immemorial, preferred to all other swine there, for choice hams, shoulders and bacon. They were slow feeders, and did not ordinarily mature until two and a half to three years old.

It is thus that I find the Berkshire hog figured and described in the earliest English publications to which I have been able, thus far, to obtain access. But in the second volume of tbe magnificent folio edition, illustrated with colored plates, now lying before me, of "The Breeds of the Domestic Animals of the British Islands," by Professor David Low, published in London, in 1842, is a portrait of a Berkshire as I have described above, except being of rounder body and somewhat finer in all his points, with ears like most of those of modern breeding, medium in size, and erect, instead of flopping. This portrait is of a sandy or reddish brown color, spotted with black; the feet and legs for nearly their whole length, white, slightly streaked on the sides and behind with reddish brown. It, of conrse, represents one of the old breed considerably improved, and marked as I occasionally found them in all my visits to Berkshire, down to 1867. But the pigs which I saw thus marked were of the same size and shape, and as fine in all their points as the general run of the black, slate, or plum colors of the present day.

Formation of the Improved Berkshire Swine.

Tradition tells us that this was made by a cross of the black or deep plum colored Siamese boar, on the old unimproved Berkshire sows. Other traditions assert that the black and white spotted, and even pure white Chinese boar was also sparingly used to assist in the same purpose. I can well believe this; for I often saw swine in Berkshire spotted, about half and half black and white, in addition to the reddish brown, or buff and black, and so on almost up to a pnre plum color or black. Tbe produce of the above cross or crosses was next bred together, and by judicious subsequent selections, the improved breed, as we now find it, became, in due time, fixed and permanent in all its desirable points.

It was doubtless with Siamese boars that the cross was made on the original Berkshire sows, which has contributed so largely to the formation of the improved breed, held in such high estimation for a full century or more past.

When was the Cross First Made?

Several aged men in different parts of Berkshire, of whom I inquired on my first visit to England, in 1841, informed me that they had known there improved swine of the same type as I then found them from earliest childhood. But tbe most particular, and apparently reliable, account I was able to obtain, was from Mr. Wes brook, of Pickney Green, Bysham, who told me that his father possessed them as early as the year 1780, in as great perfection as the best then existing in the country. Tbus it will be seen that the improvement is now at least a century old, and more probably a century and a quarter; for it would have taken some years back of 1780 to begin a new breed of swine and get it up to a fixed type at that period.

AN ESCAPE FROM SCRUBBING FLOORS.—A lady writer, in one of her letters to tbe *Christian Weekly*, tells how she succeeded in obviating almost entirely the drudgery of scrubbing. She says she procured from a druggist tbree quarts of boiled linseed oil, and the same amonnt of shellac varnish. Also a paint brnsh. This quanti y of material will cover as much floor as 40 yards of carpet, and costs only $3 50. The floors were cleaned as thoroughly as possible, and all spots that will not wash off onght to be planed off. We put on the first coat of oil in the evening, and the next morning it was dry. The following evening we put on a coat of tbe shellac varnish, which was dry by morning. Then after two or three days we put on the final coat of oil, but as the wood will absorb very little oil tbis time, we put it on with a flannel, and rubbed it in as thoroughly as possible. It was soon dry and ready for use. Now we have beautiful floors, easily kept clean by wiping off the dust with cold water. Once in three or six months we can go over them with a little of the boiled oil, and have them look as well as ever again. Such floors would rob "cleaning time" of half its terrors, and add largely to the purity of tbe atmosphere of our houses already poisoned by air-tigbt stoves and furnaces. It is a cbeap reform and easily tried.

EXTERMINATING BEDBUGS.—Where all other means have failed to exterminate bedbugs, sulphurous acid gas has succeeded. Take everything out of the infested room, plug up all the windows tightly, close all chimneys, and empty about one ounce of powdered sulpbur on a pan of hot coals, placed in tbe middle of the floor. Shut the doors and cover all cracks; let the sulphur burn as long as it will. Where the room is large, it is a good plan to fasten a piece of tin tube to the bottom of the pan, and to this connect enough small rubber pipe to lead out of the nearest door. By blowing into the end of tbe pipe with the bellows, the sulphur will be caused to burn more quickty by the draft created, and to give a denser smoke. After the sulphur has burned out, paint all tbe cracks in the floor and around the mop board with a strong solution of corrosive sublimate, and treat the furniture to the same before replacing it.

A GOOD and simple furniture polish consists of a little Castile soap scraped into a pint of warm water. Add three tablespoonfuls of sweet oil; heat, and apply while hot.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. WEBSTER; Secretary, AMOS ADAMS.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

A Circular.

SAN FRANCISCO, July 1st, 1876.

DEAR SIRS AND BROTHERS:—You are respectfully invited to send one or more delegates to meet with Golden Gate Grange at Huddy's hall, 909½ Market street, on Tuesday evening, July 25th, at 7½ P. M.

J. D. BLANCHAR, M.

Considering the magnitude of the wheat crop, and the low prices that will rule, unless some plan can be devised and a concert of action had by the producers to realize a fair profit for their crop; Therefore it is deemed advisable that there should be a convention of some of the leading wheat growers of our order to consider what measures if any can be adopted to effect the desired purpose.

It is thought that great good will grow out of a meeting of this kind. It is recommended that union meetings be called for Saturday, July 29th, to hear the report of their delegates and if deemed advisable to adopt some plan that may be suggested to accomplish the object.

Hoping to meet with hearty co-operation from every grain district, we are fraternally,

DAN INMAN, Manager G. B. R.
C. J. CRESSEY, G. B.
AMOS ADAMS, Sec'y S. G.
A. D. LOGAN, Ex-Committee.
J. M. COSTIGAN.

[We are also requested by Worthy Master J. D. Blanchar to state that the Fruit and Wine interest will be discussed at the above named place on the first Tuesday evening in August, when it is hoped there will be a good representation present.]

P. OF H.—Subscribers who pay fully one year ($1) in advance for the PACIFIC RURAL PRESS can receive the CALIFORNIA PATRON *free*, besides other premiums. See our premium list in another column.

Grange Directory.

California State Grange.

OFFICERS FOR 1875-7.

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Overseer—T. A. GAREY, Los Angeles, Los Angeles Co.
Lecturer—J. W. A. WRIGHT, Borden, Fresno Co.
Steward—NELSON OARR, Bennett Valley, Sonoma Co.
Assistant Steward—M. WOODHAMS, La Honda, S. Mateo Co
Chaplain—J. M. HAMILTON, Greenoc, Lake Co.
Treasurer—J. B. CARRINGTON, Denverton, Solano Co.*
Secretary—AMOS ADAMS, Franklin, Sacramento Co.*
Gate Keeper—J. B. SAUL, Napa, Napa Co.
Ceres—MRS. MARY E. IVENS, Cambria, S. Luis Obispo Co.
Pomona—MRS. S. C. BAXTER, S. F., San Francisco Co.
Flora—MRS. VITAL E. BANGS, Modesto, Stanislaus Co.
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*P. O. Address, for official business, San Francisco.

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W. S. MANLOVE, Sacramento, Sacramento Co
WM. SIMS, Buckeye, Yolo Co.
O. H. COOLEY, Cloverdale, Sonoma Co.

General Deputy.

San Francisco. T. H Merry. No. 13, City Hall.

County Deputies.

COUNTY.	DEPUTY.	POST OFFICE.
Alameda.	Thos. Heller.	Haywards.
Alameda.	Alfred T. Dewey.	Oakland.
Amador.	H. Vanderpool.	Plymouth.
Butte.	Ed. Hallett.	Chico.
Butte.	W. M. Thorp.	Chico.
Colusa.	Jacob Meyers.	Grand Island.
Contra Costa.	Nathaniel Jones.	Lafayette.
El Dorado.	A. J. Christie.	Sutter Mills.
Humboldt.	H. W. Arbogast.	Arcata
Humboldt.	Jackson Sawyer.	Table Bluff.
Lake.	H. A. Oliver.	Lakeport.
Los Angeles.	Thos. A. Garey.	Los Angeles.
Marin.	H. F. Taft.	Nicasio.
Mendocino.	John Mewhinny.	Pomo.
Mendocino.	W. D. White.	Ukiah.
Merced.	J. L. Crittenden.	Special Deputy
Merced.	H. B. Jolly.	Merced
Modoc.	O. L. Sullivan.	Willow Ranch.
Nevada.	H. L. Hatch.	Indian Springs.
Placer.	A. J. Soule.	Lincoln.
Sacramento.	W. S. Manlove.	Sacramento.
San Benito.	J. D. Fowler.	Hollister.
San Bernardino.	George Lord.	San Bernardino.
San Diego.	Chas. O. Tucker.	Ballena.
San Joaquin.	W. L. Overhiser.	Stockton.
San Joaquin.	J. W. Kerney.	Lodi.
San Luis Obispo.	A. J. Mothershead.	Moro.
San Luis Obispo.	C. H. Ivens.	Cambria.
San Mateo.	M. Woodhams.	La Honda.
San Mateo.	I. C. Steele.	Pescadero.
Santa Barbara.	O. L. Abbott.	Santa Barbara.
Santa Clara.	J. A. Wilcox.	Santa Clara.
Siskiyon.	J. S. Mathews.	Fort Jones.
Solano.	R. C. Hails.	Suisun.
Solano.	J. C. Morryfield.	Dixon.
Sonoma.	B. B. Capell.	Healdsburg.
Sonoma.	G. W. Davis.	Santa Rosa.
Sonoma.	W. W. Chapman.	Petaluma.
Sutter.	C. Ohleyer.	Yuba City.
Tulare.	W. Underwood.	Lemoore.
Ventura.	E. B. Higgins.	Saticoy.
Yolo.	Wm. Sims	Winters.
NEVADA.		
State of Nevada.	A. J. Hatch,	Reno.
Douglas.	J. R. Livingston.	Genoa.
Esmeralda.	Kimber Cleaver.	Mason Valley.
Humboldt.	B. F. Riley.	Paradise Valley.
Elko.	J. A. Tinker.	Elko.

Farmers desiring to organize Granges can apply to J. V. Webster, (W. Master,) Brooklyn, Alameda Co., Amos Adams, (W. Sec'y,) 40 California street, S. F., or to the nearest Deputy to their locality.

Pomona Granges.

No. 1.—Los Angeles County, EDWARD EVEY, M.; G. C. GIBBS, S.
No. 2.—Fresno County, W. J. HUTCHISON, M.; W. A. SANDERS, S.
No. 3.—Solano County.
No. 4.—Sonoma County, L. Goss, M.; W. McP. HILL, S.
No. 5.—Napa County, J. M. MAYFIELD, M.; J. W. WARD, S.
No. 6.—Stanislaus County, H. W. BROWSE, M.; V. E. BANGS, S.
No. 7—Nevada County, C. BARBER, M.; W. STEVENS, S.

California Subordinate Granges.

[This list contains the names of Masters and Secretaries so far as reported to us, elected to serve during the year 1876. In Granges not reported we continue the names of last year's officers. Secretaries and others will greatly oblige us by making needful corrections.]

EXPLANATIONS.—The P. O. address is given only where it is different from the name of the Grange.

Grange and P. O.	Master.	Sec'y.
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PLYMOUTH.	J. SALLEE.	S. C. WHEELER
JACKSON VALLEY.	W. H. PROUTY.	J. C. HAMRICK
SOUTH SUTTER.	THOS. BOYCE.	G. B. RICHARDS
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CENTERVILLE.	J. M. HORNER.	M. B. STURGES
EDEN, Hayward's.	J. RUSSELL.	WM. PEARCE
LIVERMORE.	D. INMAN.	O. R. OWENS
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TEMESCAL, Oakland.	C. BAOGE.	JOHN COLLINS
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NORD.	J. B. CLARK.	MRS. C. A. COLBY
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CALAVERAS, J'ny Lind.	M. F. GREGORY.	R. THOMPSON
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ANTELOPE VALLEY.	H. A. LOGAN.	P. PETERSON
CENTER, Colusa.	D. BERER.	MRS. CARRIE WERLEY
COLUSA, Colusa.	J. R. TOTMAN.	R. JONES
FRESHWATER, Colusa.	P. S. PERDUE.	R. A. WILSEY
FUNK SLOUGH, Colusa.	G. H. AREL.	IDA FULTON
GRAND ISLAND.	J. MEYERS.	H. D. STRAWTHER
PLAZA, Jacinto.	M. KENDRICK.	J. W. SOWERS
PRINCETON	R. R. RUSH.	P. H. SCOTT
SPRING VALLEY.	B. LUCAS.	T. SINGLETON
WILLOWS, Princeton.	J. R. TROXELL.	L. D. BROWN
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ALHAMBRA, Martinez	J. STRENTZEL.	MRS. M. B. LANDER
ANTIOCH.	JOSIAH WILLS	MRS. S. A. SELLERS
DANVILLE.	D. N. SHERBURNE	MARY LYNCH
POINT OF TIMBER.	J. R. W. CARRY.	G. W. CARTER
WALNUT CREEK.	M. S. GRAY.	R. M. JONES
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EL DORADO.	J. M. B. WEATHERWAX	MISS C. J. SHELTON
PILOT HILL.	P. D. BROWN.	W. TAYLOR
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SUISUN VALLEY.	R. C. HAILE.	F. MCMULLEN
VACAVILLE.	R. C. MARSHALL.	A. P. COBURN
VALLEJO.	J. F. DEMING	G. C. PEARSON
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BENNETT V. S'ta Rosa.	A. BURNHAM.	G. N. WHITAKER
BLOOMFIELD.	WM. H. WHITE.	A. B. GLOVER
BODEGA.	E. S. PERINE.	E. H. CHENEY
CLOVERDALE.	CHAS H COOLEY.	F. W. DAVENPORT
GEYSERVILLE.	A. STITES.	W. H. ADAMSON
HEALDSBURG.	B. B. CAPELL.	W. N. GLADDEN
PETALUMA.	W. W. CHAPMAN.	FREEMAN PARKER
SANTA ROSA.	G. W. DAVIS.	JULIUS ORT
SEBASTOPOL.	L. ROSS.	W. J HUNT
SONOMA.	WM. MCP. HILL.	J. A. POPPE
TWO ROCK.	S. M. MARTIN.	A. A. WOODEN
WINDSOR.	JAS. KENNEDY.	ELEANOR LINDSAY
STANISLAUS COUNTY.		
BONITA, Crow's L'd'g.	J. W. TREADWELL.	A. B. CROOE
CERES.	H. W. BROUSE.	R. R. WHITMORE
COTTONWOOD.	W. E. RIDDLE.	OSCAR BABCOCK
GRAYSON.	WM. LOVE.	A. C. LANDER
OAK DALE.	C. R. CALLENDAR.	C. B. INGALLS
ORISTIMBA, Hill's F'ry.	E. H. ROBISON.	B. D. NOXON
SALIDA, Modesto.	J. D. REYBURN.	J. P. VINCENT
STANISLAUS, Modesto.	V. E. BANOS.	B. B. ROBINSON
TURLOCK.	B. H. DEANE.	MISS L. DEANE
WATERFORD.	R. R. WARDER.	W. C. COLLINS
SUTTER COUNTY.		
NORTH BUTTE.	B. R. SPILLMAN.	J. G. DOW
SO. SUTTER, Pleas. Grove.	THOS. BOYD.	W. TREVEGHAN
SUTTER, Meridian.	W. C. SMITH.	S. H. MOORE
YUBA CITY.	J. C. DRESSAR.	M. F. HONAN
TEHAMA COUNTY.		
FARMINGTON.	C. F. FOSTER.	C. C. CHITTENDEN
NEW SALEM, Paskenta.	W. W. BOTKIN.	J. R. WHITLOCK
RED BLUFF.	R. H. BLOSS M.	C. E. FONDA
TULARE COUNTY.		
CHRISTMAS, Visalia.	S. H. BLOOD.	J. PERRIN
DEEP CREEK.	A. W. MATHEWSON.	W. G. PENNEBAKER
FRANKLIN, Grangeville.	T. S. HARRINGTON.	G. W. CAMP
LAKE, Grangeville.	R. B. HUEY.	M. M. RHOADS
KEYSTONE.	ERASTUS AXTELL.	N. B. GOLDEN
MANZANITA.	J. K. CRAMER.	MRS. M. C. BECKER
MOUNT WHITNEY.	A. F. THOMPSON.	G. W. DUNCAN
MUSSEL SLOUGH.	W. UNDERWOOD.	W. H. BATTENFELD
TULARE.	P. S. TRACY.	J. A. GOODWIN
TULE RIVER.	C. W MCKELVEY.	W. H. ATKINSON
VISALIA.	J. M. GRAVES.	W. CURTIS
WOODVILLE.	J. A. SLOVER.	J. H. GRIMSLEY
TUOLUMNE COUNTY.		
SONORA.	G. O. SOULSBY.	J. W. PURDY
VENTURA COUNTY.		
OJAI, Nordhoff.	C. E SOULE.	J. HOBART
PLEASANT VALLEY.	W. P RAMNER.	W. O. WOOD
SAN PEDRO. Husneme.	J. Y. SAVIERS.	D D. DENURE
SATICOY.	E. B. HIGGINS.	MISS A. BAKER
SESPE, San B'ventura.	F. A. SPRAGUE.	H. WARRING
VENTURA, San B'ventura.	C. S. PRESLE.	J. M. BROOKS
YOLO COUNTY.		
ANTELOPE.	W. J. CLARK.	T. F. HUGHES
BUCKEYE, Winters.	WM. SIMS.	MRS. E. A. MOODY
CACHE CREEK.	S. B. HOLTON.	E. R. HOLTON
CAPAY VALLEY.	J. N. RHODES.	W. D. HOLCOM
DAVISVILLE.	J. C. CAMPBELL.	H. BOWERS
FAIR VIEW VAL., Yolo.	A. H. NIXON.	T. A. GALLUP
WEST GRAFTON, Yolo.	GEO. SHARPNACK.	G. W. PARKS
YOLO, Woodland.	R. B. BLOWERS.	G. N. FREEMAN
YUBA COUNTY.		
KELLEY, Smartsville.	J. E. RICKEY.	WM. SCHMIDT
MARYSVILLE.	MORTON SEWELL.	
WHEATLAND.	J. H. KEEPS.	C. K. DAM

Nevada Subordinate Granges.

[Under the Jurisdiction of California.]

ALFALFA, Reno: A. J. HATCH, M.; E. C. MCKINNEY, S.
CARSON VAL'Y, Genoa: T. IRVIN, M.; R. J. LIVINGTON, S.
CLOVER VALLEY, Elko: F. THOMSON, M.; W. B. REYNOLDS, S.
DOUGLASS: A. B. BALES, M.; S. A. KINSEY, S.
EAGLE VALLEY: G. W. CHEDIC, O.: A. F. GILBERT, S
ELKO: J. A. TINKER, M.; J. L. KEYSER, S.
HALLECK: J. S. FENN, M.; M. GEARY, S.
MERRITT, Mason Valley, Esm'lda Co.: KIMBER CLEAVER, M.; CLARK CLEAVER, S.
PARADISE: J. BRADSHAW, M.; J. P. MULLINIX, S.
LAMOILLE: H. A. YOUNG, M.; H. M. TRUMAN, S.
STAR VALLEY: W. W. GRISWOLD, M.; C. J. WHITNEY, S:
WELLINGTON, No. 6, Esmeralda Co.: A. H. HAWLEY, M.; J. N. MANN, S.
WINNEMUCCA: W. B. HASKELL, M.; H. BARNES, S.

Grange Fellowship.

The principle specially valuable and important to the farmers which the Order of Patrons of Husbandry inculcates, is good fellowship. The other orders noted for the cultivation of this virtue are and always have been peculiarly the outgrowths of towns, cities, and the denser populations of their immediate vicinities, and thus it happens that, as a general thing, farmers have never mingled in them to any very great degree. This want has been severely felt and deplored by thoughtful and progressive farmers, and it remained unsupplied from the creation until the Grange was born. Nothing has heretofore been attempted in this way, which has so much promise. While Masonry and its several offshoots present beautiful theories of mutual dependency and fellowship, yet they stop when these simple duties have been paid. The great farmers' society goes further and carries the fellowship idea into the every day business of life. While, like Masonry, it gathers to the sick couch of a suffering brother, it also tills his fields, cares for his business and supplies abundantly the deficiencies occasioned by the ill health of the member.

In the application of this principle of fellowship it does not stop where respectable conservatism does and wait for disaster; it guards its votaries from its approach, if possible. Its fellowship consults together and the wisdom of the brethren is massed, and he who is threatened has the full benefit of it. Here, indeed, rests the pre-eminent advantage of the Grange over any and all the moral or benevolent institutions of the day, and in addition to this, its mission is to that class of people who have hitherto by their pursuits and situation been to a great extent deprived of even the less advantageous intercourse of the other orders.—*Examiner and Patron.*

Help of Women.

It is possible, too, that the ready wit and practicable intelligence of women may aid greatly in the accomplishment of the ends sought after by our organization.—*Colman's Rural World*

Well, we should say so. "That the ready wit and practicable intelligence of women may aid greatly in the accomplishment of the ends sought after by our organization" is not only "possible," but it is probable. Indeed, it is highly probable that we can hardly expect to accomplish these ends without their aid. We perfect men may insist that our wives and daughters have a weakness for unnecessary questions, that they delight in trifling incidents, that they are prone to tell the same story twice, that they have a habit of wanting to know what we are talking about just as we are finishing our remarks, that they misconstrue our irony and want our jokes explained, and that they can't calculate and don't understand business. But when it comes to caring for and beautifying our homes and providing our good dinners we have to confess our inferiority. And we have to confess, most of us, that with a charming woman we are as clay in the hands of the potter. To pour out our rills of oily eloquence on the refining influences of the Grange would be, if women were not members, to gush over a "barren ideality."

One aim of the Order is to lead farmers to devote more attention to the improvement and ornamentation of their homes, and yet this work when it is done must be done by the women. All we horny-handed men can do is to dig the holes for the rose-bushes, drive nails for the pictures, lift wash-stands and bureaus and smile approvingly while our wives do the rest. Certainly in the accomplishment of this end of our organization the women must help us.

Another aim of the Grange is to soften our manners. But what is more productive of courtesy and politeness than the society of ladies? If a lot of men were to meet together, whether as a Grange society or as some other society, the tendency would be toward boorishness; and the oftener they met the worse it would be for their manners. Men and women are a restraint on each other. The demeanor of both classes is better when they are together. We need not specify further. No part of the work of the Order, except perhaps the business matters, can be accomplished without the hearty assistance of our wives and daughters. This is not possibly, nor even probably, but certainly true.—*Oregon Cultivator.*

Why Join the Grange?

There are many reasons. The Grange is a means of rational and highly beneficial social enjoyment. The Grange is a means of valuable instruction. When farmers meet together they naturally talk. They talk of their business as farmers, of the markets, the oppressions of monopolies, the rate of interest, the railroad law, the third term, the prospects of the Patrons' movement—in short, of everything that interests them as men. A few days since two good farmers sat here at our table and talked of the different breeds of hogs, then of their proper care, then of other stock matters, and so on—all of us were instructed by the talking together. So everywhere, and particularly at the Grange meetings, good farmers will find much valuable instruction in the mutual interchange of views and the relation of their experiences. In this connection the advice cannot come amiss if we say, go early. It will afford you the greatest opportunity to talk with your neighbors. The Grange is the means of large savings in business. Already, through the State and county agencies, a vast amount of farm machinery and other supplies have been purchased by the farmers at greatly reduced prices, and arrangements are now making for still further reductions and vaster transactions. Co-operative stores have been started, insurance companies organized, elevators built and agencies for sale of farm products established. All this tends to save money for the farmer, and to teach him habits of business.—*Oregon Cultivator.*

GRANGE DIRECTORY.—We print this week our "Grange Directory," corrected according to the latest information which we have received from the Granges. Now, as formerly, we invite all Granges to favor us with information of errors or changes in offices, that our directory may be trustworthy and correct.

THE MISSION TO ENGLAND.—We have received from J. W. A. Wright a copy of an address which he recently delivered at Elm Station encampment, Centennial exposition, giving a full account of his observations among the European farmers, and his conclusions concerning the field for Grange work abroad.

Agricultural Notes.

California.

BUTTE.

Extensive Farming.—*Mercury*, June 30: F. A. Shaffer, of Hamilton township, has one of the best grain-producing ranches in the county. On the home farm he has a wheat field of 640 acres that will yield thirty bushels to the acre; on the same farm he has 370 acres of barley that will go forty bushels to the acre. He had 1,000 acres, but cut all but the 360 acres for hay. On his Feather river ranch he has 700 acres of barley that will yield not less than thirty bushels to the acre and may go much higher. In addition he has rented 900 acres on Butte creek to Wm. Sharkey, and has one-fourth of the crop. Seven hundred acres are in wheat that will yield fifty bushels to the acre, and 200 are in barley that are estimated at 70 bushels. There is, probably, no part of the county where the yield will be so great as on this Butte creek ranch. We have heard farmers speak of its productiveness as bordering on the marvelous. But Mr. Shaffer's farming is not confined to grain raising. He has a large band of blooded sheep that give a heavy fleece twice a year. On his ranch can be found some of the best cattle, horses and hogs that money could purchase. He has spent thousands of dollars in improving his stock, and now he is getting well paid for it.

Eds. Press:—Have you ever been in Chico? Of course you have, but every one who reads the Rural does not know what a beautiful place it is. Chico is the center of a very rich farming country, and the broad wheat fields are an immense source of wealth which the people have just cause to be proud of. I had the pleasure of riding out to the place of Jas. Decker, and saw one of the largest harvesting and teaming outfits in this part of Butte county. To attempt to describe all the separate pieces of machinery, such as threshers, headers, large mule teams, etc., would take a whole issue of the Rural Press. One can look it all over in a few hours, provided he does not stop to make remarks about each separate piece and dwell upon its good qualities. Truly this is a great country, and we are living in a great age of improvements. — H. W. K, June 21st, 1876.

CONTRA COSTA.

The Harvest.—Antioch *Ledger*, June 24: The work of harvesting the wheat crop progresses. The average yield is considerably larger than any year since '68. Some fields will go as high as 60 bushels per acre. There is some complaint of rust and frequent instances of the kernel being pinched, though as a whole the wheat crop may be said to be far superior to former years. The early club wheat has shattered badly; in one instance, that of Mr. Stockton, one-half the crop has been lost. The little club withstands the wind better, and is safer grain for farmers to sow. But little grain has been sold, the market price not as yet being established. Friedlander, the acknowledged wheat king, will doubtless shortly send forth his edict, upon which depends the net proceeds of the California agriculturist. Many farmers who are in easy circumstances will hold their grain till winter, while others will be compelled to sell to meet pressing demands.

FRESNO.

Government Wheat.—*Expositor*, June 28: Last winter we received a small package of wheat from the Agricultural Department at Washington. We gave a portion to Antonio Days, one of our most enterprising farmers, who planted it in the same manner that he did the balance of his crop. The result has been very satisfactory to him. The wheat, which is a bearded variety, grew well, matured early, and produced fine heads of large, plump grain. Mr. Days is so well pleased with the grain that he will save it and plant it again next season.

LOS ANGELES.

State Beekeeper's Association.—*Herald*, July 1: We should suggest the propriety of organizing a State beekeepers' association, as we think by such an organization the general interest and advancement of beekeepers would be much promoted. These organizations exist in most of the States and have done much towards developing the science of apriculture, awakening an interest in the subject that has led to beneficial results. We have conferred with some of the leading beekeepers of the State on this subject, all of whom seem to favor the enterprise. We would like an expression from the beekeepers generally on this subject. We are in favor of meeting at the most central and accessible point in the State in October or November next. Will some of our brother beekeepers move in the matter by giving their views? Speak out.

MENDOCINO.

Assessing Sheep.—*Dispatch* July 1: A considerable loss has been entailed all around by the depreciation in the value of sheep. This year sheep are assessed at $1 75 per head, as against $2.50 last year, and lambs have dropped from $1 to 75 cents. It makes quite a difference in the amount of the assessment roll on personal property.

MONTEREY.

Potato Blight.—Editors Press:—This is a very busy time with farmers, but the Rural Press must not be neglected. Some time ago I saw in your paper a request from one of your correspondents for information about the potato blight. I have examined mine and also a field belonging to one of my neighbors and find both fields badly blighted. I think from passing along by fields of potatoes, from the appearance, the most of them have more or less blight. I will try and ascertain and let you know hereafter. It is now admitted by most of our farmers that we will not have more than half a crop of wheat and barley in this valley, and the corn and potato crops will both be light.—B. D. H., Pajaro, June 24th.

Grain Burned.—*Index*, June 29: We learn from a private letter, received by a gentleman in town, that quite a disastrous fire occurred in the grain fields at Chualar last Sunday. It commenced on Marston's place, near the warehouse, and ran along the railroad across Peter Storm's place, burning 40 or 50 acres of his wheat and 400 sacks already threshed. Then the devouring element swept on to Carrick & Blinn's, spreading over about 200 acres, and destroying some 1,800 sacks of threshed barley belonging to the firm.

Threshing.—Steam threshers are now at work all over the Salinas valley, principally engaged in threshing oats and barley. Wheat threshing will be in full blast in a few days.

SACRAMENTO.

Fruit Canning.—*Record-Union*, June 29: J. Routier has established on his ranch, on the line of the Sacramento Valley railroad, at an expense of about $3,000, a fruit drying establishment, by the use of which he will be able to preserve large quantities of fruit that presently, owing to low prices in the market, would not otherwise be worth collecting from the trees. He will commence operations by putting up 40,000 cans of apricots, and has already had, as a preliminary measure, 20,000 cans and a ton of white sugar delivered at his establishment.

The Debris Question in Court.—*Bee*, June June 24: The contest which for several years has been pending between the farming and mining interests of the State has at last culminated in a suit, now pending in the District Court of Sacramento county, wherein James H. Cummings is plaintiff and the Amador and Sacramento canal company is defendant. No answer has been filed in the case, but the main facts as we understand them are that the plaintiff is the owner of a large and valuable tract of land on the Cosumnes river, which, with other tracts in the vicinity, all situated in the valley, have been overflowed in about the same manner as the bottoms of Bear and the Yuba rivers have been overflowed. The defendant is an extensive ditch and mining company, engaged in mining on the various tributaries of the Cosumnes, and has been so engaged for many years. The Cosumnes and its tributaries are rich in mineral deposits, and have been constantly worked since the discovery of gold. The case will come up for trial at the September term of our Court. The interests involved render it one of more than ordinary importance, for as this case is determined so must be determined the question at stake between the farmers and miners of the State. The farmers on Bear river and the Yuba and the miners on the same streams, as well as those on the Cosumnes, are interested in the questions involved, and it is not improbable that all will take part in the case. The action was commenced by A. P. Catlin and T. B. McFarland, of this city, as attorneys for the plaintiff, and we understand that Messrs. Haymond & Coggins and Ben. Bullard, Jr., of this city, with the Belcher Bros., of Marysville, will conduct the case for the defence.

SAN JOAQUIN.

Black Roses.—Stockton *Independent:* Mr. C. G. Ernest, of this city, has for a number of years experimented in the production of variously colored roses, and succeeded in growing some almost as black as ink. His plan was to engraft a slip of a dark red rose into an oak tree, where they grew, flourished and blossomed, the dark sap of the oak effectually coloring the roses black. He did not succeed, however, in transferring the slips so treated to the ground, for they invariably died in the attempt. Slips of roses engrafted into locust trees lived for two years, bearing brown blossoms. The experiment successfully carried out would be of great botanical interest in revealing the materials and process which nature pursues in coloring her flowers.

Large Figs.—We were yesterday shown some immense Smyrna figs, thoroughly ripe, and the largest we have ever seen. They were at least three inches long and large around in proportion, of a delicious flavor, and grown in J. D. Peters' garden. If properly cured they would no doubt be equal to the finest dried figs in the market.

SAN LUIS OBISPO.

Cholame Valley.—San Benito *Advance*, July 1st: From Cholame valley we learn that the feed for stock continues good although the flocks and herds are almost too numerous for each man's limited range. Sheep are selling from fifty cents to one dollar and a quarter a head, according to circumstances.

SONOMA.

Pears of Last Year's Growth.—*Democrat*, July 1: We received yesterday from G. A. Gaess, a Sonoma vintner, three pears of last year's crop, in a perfect state of preservation, ripe and juicy. Now we ask where on the face of this wide continent, whose reach is from sea to sea, can the like be shown—pears of last year in June. We challenge the State to equal it.

Scorched Apples. — Uncle Tommy Wall brought us a branch of an apple tree upon which the half grown apples are literally scorched on one side from the heat. He thinks it was done on Monday last by the hot north wind which blew that day.

White's Cheese Factory.—Petaluma *Argus*, June 29: W. H. White will close operations for the season in his cheese factory at Bloomfield to-day. He has on hand 3,000 cheese, of an average weight of about 25 pounds each, or a total of 75,000 pounds. Prices are low at present, and Mr. White is holding on for a raise. His cheese is of excellent quality, and will bring the highest price in the market.

YOLO.

The Wind and the Wheat.—*Mail*, June 29: From all farmers whom we have had a chance to interview, we learn that the heavy winds of the past three days, commencing on Sunday night, has whipped out the wheat fearfully. One man, Mr. Ryder, thinks that one-third of a field of summer fallow belonging to him is lying on the ground. Mr. James Moore tells us the same story. About one-half the wheat had been harvested before the norther set in, and so much has been wholly saved. This, together with the hot weather of two weeks ago, which ripened the backward grain prematurely, causing it to shrink a little, will reduce our estimate of the yield of Yolo county very materially. But we are not prepared to believe that the disaster caused by the north wind in whipping out the grain is general, at least to the extent above noted, and we hope that when the farmers cut their grain and thresh it, that they will find their calculations a little overrated. Last season the north wind swept over the wheat fields with more fury and for a longer time than it has this year. Some of the farmers thought their wheat was so badly destroyed that it would not pay to cut, but when cut and threshed they realized double their expectations. It may possibly be that the present condition may be about the same.

Idaho.

Editors Press:—The people of the Boise river valley have suffered more or less from the effects of exceedingly high water. The impression has gone abroad that the crops of the valley are materially lessened by the floods, which is not the case, for the increased acreage of this year and the exceeding luxuriance of the remaining crops, owing to the excess of moisture in the ground, will more than bring up the yield to that of any former season. Our harvest has begun; especially haying. I saw rye ripe and cut on the 18th inst. New potatoes were in our market on the 10th and cabbage as early as the 5th. The fruit crop of the country this year is exceedingly heavy, but there are not many large orchards yet in bearing. The mines of the surrounding camps are yielding unusually well this season owing to the large quantity of snow last winter. The quartz mines have also developed very rich ore and the miners are happy.—A B. R., Boise City, June 24th.

Oregon.

The Floods.—*Oregonian*, June 24: The river has steadily risen since last Thursday. It is now about two feet, or a little more, higher than then, and several inches higher than it was in 1862, when it was higher than at any previous time of which record has been kept. All the northern part of the city from Washington street and back from the river several blocks, is under water. B street is submerged as far back as Sixth street, and the Albina ferry boat lands its passengers at the foot of Fourth street near the residence of Capt. G. H. Flanders. North of Washington street on Front and to a considerable extent on First, business is suspended—the floors of most of the stores being covered with water. The amount of damage already caused is very considerable; but the full extent of it cannot be estimated until the subsidence of the flood. It is probable that the planking of many of the streets will have to be taken up and replaced and the Nicholson pavement on the northern part of Front and First will probably have to be relaid. Fifty thousand dollars has been mentioned as the amount of damage already done, but that sum will hardly cover it. At present the water is not rising perceptibly. It is thought the highest point has been reached and that the water will soon begin to recede.

Monday evening the Orleans hotel at Umatilla was carried away. Same evening Fred Benzer's bakery at the Dalles was washed away. Wednesday evening the back portion of Merryman & Louis' stone building at the Dalles washed out. One third of the O. S. N. Co.'s large warehouse at Celilo—about 300 feet—was carried out last Saturday night. Two small fisheries on Deer island and one house above Maxwell's landing have been carried away. Wednesday evening a large building was seen to float past Kalama, and a portion of a large frame building was seen the same day stranded on rocks below Martin's bluff. Yesterday a small salmon fishery, located at Warrior's point, just above St. Helens, yielded to the high water and floated majestically down on the current.

Capt. J. C. Ainsworth received the following telegram last evening from the Dalles, sent at 4.45 o'clock, which looks encouraging: "Just returned from Celilo. Everything there safe, and apprehend that there will be no further damage or danger to property. Have had most of the embankments stayed with rock and brush, and am still at work at some of them. No report from Foot to-day, but am satisfied everything is 'O. K.' on the road, or he would advise me. River on a stand since morning at Celilo."

Latest dispatches from the Dalles look favorable. From four o'clock A M. to four o'clock P. M., the river had risen only one and a half inches.

Hops at the Centennial.

We have received from P. Weilbacher, director of the hop department of the Centennial, the following rules and regulations for the exhibition of samples and sample bales of the new crop of hops. Those who wish to submit specimens should observe the following:

Full size square samples of not less that one pound in weight, and drawn from the bale, addressed to the undersigned, and if sent by mail to be marked with the initials of the consignor, postage prepaid, will be received up to October 5th.

Applications for bales should be made in time to receive the necessary labels for forwarding and insure the arrival of the hops in Philadelphia by October 5th, freight prepaid.

Such samples or sample bales should represent the whole growth; samples found to be fictitious will be thrown out from the award. Advise by letter the number of bales or the estimated gross weight of the whole growth. Samples will be numbered and registered for competition as they come to hand.

Prizes.

In order to have a full collection of fine samples and sample bales, and to stimulate growers to take the best care in picking and curing their hops, the dealers of New York city have provided a prize of $50 in gold to be handed to the grower of the best sample of hops; a second prize of $30 in gold for the next best sample, and a third prize of $20 in gold for the third best sample, besides the medal to be awarded and given by the Centennial commission. Should outside subscriptions yet be made, the prizes would be raised in proportion. The trial will come off on October 10th, at the office of the hop department in the Brewers' Centennial building in Philadelphia, and to give satisfaction to all concerned, three practical brewers have been selected to act as experts, in conjunction with the jurors appointed by the Centennial commission. P. Weilbacher, director hop department, 44 Pearl street, New York.

Sales of Farming Lands.

Los Angeles.

One of the largest real estate transactions of the year was concluded yesterday in the sale of a part of the Cucamonga homestead tract. The purchase was made by some San Francisco capitalists, and the consideration was $21,000 gold coin. The homestead company have expended a great many thousand dollars in supplying water for their entire tract, and now have a volume of water in their main ditch equal to that of the Los Angeles river. The system of irrigation is complete and an invitation is extended to the public to inspect the property.—*Express.*

Santa Clara.

Dan Murphy, of San Jose, is about to cut up his extensive ranch, north of Gilroy, and sell it in farms of from 160 to 200 acres each. The tract will make from 30 to 40 farms of this size, and can be purchased on easy terms. Other large ranch owners in this section of the State might imitate Mr. Murphy's example with profit to themselves and customers, besides contributing greatly to the general prosperity of the entire country.—*Hollister Enterprise.*

Alameda County.

Last week, Friday, C. D. Henry, of Castro valley, two or three miles east of Haywards, sold his place to Seth Warner, who has recently come to our State from Massschusetts. Possession was to be given this week. The place contained 14 acres and a half, and the price paid was $10,500 in gold coin. This shows the value of land in that vicinity, and what industry, energy and perseverance can accomplish in a short period of time. Five years ago Mr. Henry bought the naked land at a comparatively low figure, and has put the present value on it by his own continuous exertions. There was not only a good house, barn and out-houses on it when sold last week, but also 1,400 fruit trees and 60,000 currant bushes, besides various other growths, the work of his hands. This is one of many examples of what our prolific soil, equable climate and favorable location, so near the great commercial city of the Pacific, can effect under the hands of enterprise and industry. It is an example to be followed through all this portion of Alameda county.—*Independent.*

Tuolumne.

As an instance that agricultural land is still of value in this county, we mention the fact that the one-fourth of 40 acres was sold last week for $1,040. The land is the Italian garden in the vicinity of Columbia. One hundred and four dollars per acre is a good price considering the condition of the county, and thousands of other acres of land here equally as good can be had at Government rates—1.25 per acre. Thorough cultivation—intelligent farming—will make garden spots anywhere in Tuolumne.—*Independent.*

Early Flour in Texas.—The first sack of flour raised in Texas this year was harvested on May 15th, threshed on the 16th and ground at the Todd mills, Dallas. It was then shipped to Galveston, with instructions to be sold at auction and the proceeds given to the Bayland orphan home. On the 23d it was sold in front of the cotton exchange, and brought $300.



The Sabbath.

Fresh glides the brook and blows the gale,
Yet yonder halts the quiet mill;
The whirling wheel, the rushing sail,
How motionless and still.

Six days of toil, poor child of Cain,
Thy strength the slave of want may be;
The seventh thy limbs escape the chain—
A God hath made thee free.

Ah! tender was the law that gave
This holy respite to the breast,
To breathe the gale, to watch the wind,
And know the wheel may rest.

But where the waves the gentlest glide,
What image charms so light thine eyes?
The spire reflected on the tide
Invites thee to the skies.

To teach the soul its noblest worth,
The rest from mortal toil is given;
Go, snatch the brief reprieve from earth,
And pass—a guest to heaven.

They tell thee, in their dreaming school,
Of power from old dominion hurled,
When rich and poor, with juster rule,
Shall share the altered world.

Alas! since time itself began,
That fable hath but fooled the hour;
Each age that ripens power in man
But subjects man to power.

Yet every day in seven, at least,
One bright republic shall be known;
Man's world awhile hath surely ceased,
When God proclaims its own.

Six days may rank divide the poor,
Oh, Dives, from thy banquet hall;
The seventh the father opens His door,
And holds His feast for all.—*Public Opinion.*

Woodside Papers.—No. 6.

[Written for the RURAL PRESS by J. E. JAMESON.]

One pleasant morning, as Mrs. Payson and Miss Peck were sitting on the verenda with their sewing, they heard a light rap on the back door, and soon after Miss Mattie Storrs, the only daughter of a merchant, came and sat down just inside the bay window.

"You must excuse me for coming in at the back door," she said, taking Mrs. Payson's extended hand. "I came up through the field for some of the 'Payson medicine,' as papa would say. He laughs at me and says I stay at home as long as I can endure myself, then come up here and get cheered up."

"You look as if you needed some medicine of some kind," said Aunt Keziah, peering over the top of her spectacles.

"I do feel miserable," returned Miss Storrs. "Come, Mrs. Payson, turn a crank and grind something out of that wise head of yours that will cheer me up."

"Ah, Miss Mattie, I fear you will have to change your life somewhat before you will be very cheerful. But come out here, where you can have perfectly pure air and the benefit of the sun."

"Oh, but the sun tans one so!" sighed Miss Storrs.

"*Tans one so!*" cried Mrs. Payson. "Mattie Storrs, I am *ashamed* of you! Here you are, looking as though you had been done up in cotton batting, and set up on a shelf half your life; and you shut your blinds, and do not know that you are blind to your best interests. You should be out in the air all that you possibly can!"

"Oh, don't scold me, Mrs. Payson! Here I am, shall I sit in the full blaze of the sun?"

"You might sit so that the sun would fall on your shoulders, as it is not oppressively warm."

"Yes," said Aunt Keziah; "old Dr. Hayes used to say that people ought to stay in the sun in the summer that they might lay by a store of strength for cold weather. A sun bath is healthy and cheap."

"Now, Miss Mattie," said Mrs. Payson, "if you want a prescription, you must tell me what time you arose this morning—no, how late did you sit up last night?"

"Last night? Oh, I was reading until—well, it wasn't midnight."

"Why, Mattie! when you have had to leave school because your eyes were not strong enough to admit of your studying, and now you read (nothing but nonsense, I presume), when you ought to be asleep. I was sorry that you had to leave school."

"Oh, well, I am studying French and Latin now."

"*Studyin' fiddlesticks!*" said Aunt Keziah, indignantly. "You had better leave such trumpery, and be after studyin' the art of gettin' well and keepin' well."

"Well, you and papa would agree splendidly; he told me this morning that I had better leave off Latin and study health."

"There is the great lack in our schools," said Mrs. Payson. "Every other study receives more attention than the health. To be sure, one has a smattering of physiology, but that is not enough. They should be obliged to read carefully the best works on the preservation of health, like 'Dr. Hall's Guide Board to Health, Peace and Competence.' Could they learn the happy art of keeping their health good, it would be worth more to them than all the dead languages in the universe. They should be taught what to eat, and how to cook good, nutritious food, and not left to feed themselves on fruit cake and be grievously tormented with the dyspepsia half their days. I hold that good morals and good health should be considered before education."

"Oh, Mrs. Payson," cried Miss Storrs, "how did you know what I had for breakfast?"

"I did not, what was it?"

"Why, I wasn't up until the rest had eaten, so I just took a slice of fruit cake and a cup of strong tea."

"Oh, how foolish! You do not need strong tea. Guess how Dr. Hall tells us to make tea. One teaspoonful in a quart of boiling water, two-thirds of a cup of this and one third milk or water. Tea drinkers scorn the idea! I know persons who use nearly a teaspoonful to a cup of water, then say they drink weak tea. I will tell you what I drink: A teaspoonful of such tea, after it is made, in a cup of hot water. I think something warm is better than very cold water, because the stomach has to suspend all work until the water is warmed. I could tell you of a hundred things more healthy than fruit cake for your breakfast to-morrow morning. I will tell you something I learned last Monday afternoon. Do you see, away up almost to the top of the mountain, that little patch of cleared land and the tiny log house in the middle of it, with the smoke curling from the chimney? We rode up there, as Mrs. Snow, the lady who lives there, has been making some rugs for me, and I wished to get them, as well as to give Aunt Keziah a pleasant ride, as she is going away to-morrow. We thought we should be disappointed, for it rained quite hard after dinner; but Grace had set her heart upon going, and declared that it 'wouldn't last long, for 'twas only dest the angels got threw their washin' and emptin' their tubs;' she 'heared their big wringer 'ittle while ago.' Sure enough, it soon stopped and we started, after I had looked up a good package of papers for Mrs. Snow. That reminds me, I wish that you would save all your good, common-sense papers and magazines not wanted for future use, and give them to her and others who cannot afford to buy for themselves. They will lend them to their neighbors and they will be a source of pleasure and profit. I cannot bear to see good papers burned up or sold to be ground up again, when so many might be benefited by them and, perhaps, lead to a better life. That was a delightful ride, up through the maples and beeches. We were not intending to go in, for I know that Mrs. Snow dislikes to have people know of her poverty; but the work was not quite ready, so we were almost obliged to do so. Poor Mrs. Snow! In her younger days she was a tailoress, and had money in the bank. But she married a lazy man, and has to support him by doing such work as she can get. A call there is enough to make one contented with their own surroundings. There was nothing but bare walls; no paint, no paper, no nothing, I was about to say, but there was a loom in one corner, a spinning-wheel in another, and a bed in the third, a few old chairs, and last, but not least, Mr. Snow's mother, sitting by the fire, with her tea-pot, which is always kept hot, within reach. They say she drinks a half pound a week.

"Over the bed was a ceiling (?) made from an old print wrapper which I gave to Mrs. Snow, just, as she said, 'to keep the spiders and such from falling down from the roof on our faces.' She has made some print curtains for the wee windows, and tried to fix up a little, but it is about all that she can do to get something to eat and keep the old lady in tea. Well, what I was going to tell you was that she was cooking some oatmeal, and as she said that it was very nice, healthy and cheap, I called at the store on our way home and bought some. We find it a delicious breakfast dish, eaten with milk or cream, and sugar. For our family of five, I sift a teacupful into two or three pints of boiling water, into which I have put a heaping teaspoonful of salt; I stir it frequently, letting it boil about half an hour. It is a universal dish among the Scotch, and is very nutritious. I advise you to turn your back on fruit cake and eat some, or some crushed wheat, or graham bread, or, if you must have something sweet, go into the kitchen and make a gingerbread. I have an excellent recipe. I sometimes eat them warm with butter. Take one and a half cups molasses, one cup of water, a little warm, two large spoonfuls melted butter, one-half teaspoonful salt, one teaspoon soda, ginger as you like it; I use half a teaspoonful. But what did you do before breakfast? You were feeling very poorly, did you try to make yourself feel better?"

"Do?" said Miss Storrs, "why, I just slipped into an old wrapper, twisted my hair into a 'pug' and washed my face, to be sure! What would you have had me do?"

"Well," replied Mrs. Payson, "you should brush your hair carefully in the first place, then put on a nice fresh wrapper, as you have plenty of them, and—how did you wash your face?"

"How did I wash my face? Why, took some cold water, dipped my hands in, and scrubbed it, of course! Then put some soap on my hands and scrubbed them. Did you for a moment imagine that I did not know how to wash my face?"

"I did, for the simple reason that I never knew how to wash mine until a few years ago," said Mrs. Payson, quietly.

"Why, Mrs. Payson! are you crazy?"

"No, my dear, I am of perfectly sound mind. To-morrow morning please take about a pint of water, a little warm; use nice hand soap, and wash your hands for some time. You will be surprised to find the water very dirty, though it is not so surprising when we consider that a large amount of waste particles from the body have been thrown upon the outside. When you wash your face first, these are, of course, rubbed upon it; instead, take another tepid water for your face—wise men declare that this is best for the complexion, with cold water for an instant rinsing. Next, brush your teeth. Use refined hard white soap, by rubbing a damp, stiff brush upon it, at least once or twice a week, and common salt as often. They say that soap and salt will destroy that which causes the teeth to decay. After each meal rinse your mouth thoroughly, or use a softer brush, twisting it around the teeth that it may remove particles of food—in all cases using warmish water. I have tried this for years, and I know that before my teeth ached frequently, but since then they have not troubled me at all. I also use, a few times a week, some tooth powder, prepared by a good dentist. I tried a few days since to persuade Mrs. Smith, who was groaning with the toothache, to try keeping them clean, but she said she never owned a tooth brush, and she could not think of spending the time to fuss with them; nevertheless she had not been able to do her work for some days on account of the toothache. I should not dare to say that keeping the teeth clean would prevent them from aching, but I like my own experience, and it takes but little time when the habit is once formed. Perhaps you did not need all this talk about teeth."

"I guess I did, for I only brush mine on great occasions, when I want to look very well indeed," said Mattie, blushing a little.

"Well, you have no idea how much better you will feel if you prepare in this way for breakfast. There is a way in which you can increase your health and strength without taking medicine (I am not at all partial to medicine). If your lungs or back trouble you, or you feel weak and weary, just rub the skin with a cloth wrung tightly from cold water, then rub with a crash towel, then with coarse white flannel, until the skin is red. I got this valuable idea from a physician in Boston. He also recommended spatting with the hand before rubbing with flannel; but this is apt to make the flesh tender, unless one has the strengthening wash he provides for his patients. This should be done night and morning. I know people who have kept up their strength for years by cold water and rubbing. But here, it is almost noon, and I must get dinner."

The Harvest Bride.

[By E. HUNT.]

It had been a hot day, but the heat was past. A pleasant warmth lingered and a refreshing breeze was rushing through the thick leafy masses of the trees. All the leaves in the woods were tinted with the mellow richness of autumn and under a gleaming sky waved acres of ripe yellow corn.

Farmer Dimsdale and his son Robin were returning home after work. They had had rather a long spell of it and the perspiration stood in great drops upon their brows. They were very glad to enter the last field and to come in view of their destination, but as it was near they walked much slower. The way was a narrow footpath. The farmer walked first and Robin followed. The path inclined over an elevation towards a stile, and the elder man sat upon the stile for a rest as soon as he reached it. Robin leant his elbows on the topmost rail and looked westward. His gaze followed the wings of a windmill and his thoughts entered a little cottage hidden in a profusion of foliage fanned by the air agitated by the white wings. The farmer's position on the stile commanded a splendid landscape. The sun was sinking upon the water and the whole earth, as far as the horizon, was bright with the reflection of his glory. The brightest spot in the landscape was the farmer's great field of ripe corn. This engrossed all his attention. It was well grown and the ears were large and full. The field represented many pieces of gold and ought to be cut; but for three days no laborer was to be had and farmer Dimsdale was sore vexed and troubled about the matter. He sat on the stile swinging his thick stick between his knees. He stared sorrowfully at his field of beautiful corn and wondered what he should do.

"Son," said he presently, "if so be I could get yonder meadow cut, I think I would give my consent to thy marriage with penniless Bessie."

"What!" cried the son, starting from a reverie lit with Bessie's blue eyes.

The farmer smiled grimly. "I was speaking of an impossibility, of course," said he, "but it came into my mind and I must needs say it. I am so vexed to have this good corn stand three days more when it is full ripe, that I said I think I would give my consent to your marriage with penniless Bessie if you could manage to get it cut."

"You promise me thy consent, father," said Robin, "and the meadow shall be cut."

"Son Robin," replied the old man, "you talk nonsense. If I cannot get hands, I wist you will not."

"Trust me," said the son, "I will use my own hands; Bessie will not take me without thy consent, so I will cut down the corn in the meadow, and thy consent to our bridal shall be my wage."

The old man laughed.

"Can you cut it down in three days?" said he.

"God helping me, I will," answered Robin.

"Then, verily, thou shalt marry Bessie. But mind, she lends no hand to thy help."

"So be it," replied Robin. Then he shook hands with his father to seal the compact and they parted, the old man going away with a smile of incredulity.

Robin thought Bessie Hall, the shepherd's daughter, was the sweetest maid he knew. She was neat and comely and fair withal. She had a simple grace in every movement of her lithe figure and two charming dimples when she smiled. She had been well spoken of at the Sunday school, and her mother called her a devoted daughter. She had innocently engaged the affections of the farmer's son; but the farmer had set his face against the match. He liked Bessie; but she was not the wife, he said, for Robin. Robin must look higher. It was true the shepherd's family was as good as his; but riches made all the difference. A good marriage might better Robin's condition in life. He was a handsome young man, and the chance was not unlikely to fall in his way. Bessie was a good, affectionate lassie; but the farmer was very ambitious. He would not consent to receive her as a daughter.

He thought there was no possibility of his consent being won in the manner he had suggested on the spur of the moment, and he went home laughing in his sleeve at his son's folly in indulging in such an idea.

Evening had fallen. Robin's sickle flashed to and fro and the corn fell ear upon ear at his feet. One of the farm boys followed him, gathering them into sheaves; and pretty, buxom Bessie stood by looking on, finding it difficult to restrain herself from lending a hand. Robin was silent and swift over his work. He had not time to look up, when the moon came out of the clouds, accompanied by a single star, and Bessie said, "It is night." When she went away he did not gaze after her. He sharpened his sickle and fell to work with a stronger will. His heart was throbbing with love. It sent new life and new strength through all his limbs as he thought of Bessie.

Bessie, blithe and bright, came tripping back in the morning. She found her lover still bent to his work. He had not failed or flagged all through the night. The farm boy slept a brief sleep on the stubble, but Robin worked on as if he had but just begun, and a great heap of mown corn lay about him. He smiled as Bessie came into the field and made a short pause to eat the breakfast she had brought. Then he woke the farm boy and went on as steadily and rapidly as before.

The sun advanced to the meridian. It slanted perpendicular rays through the

"Silver beech and maple yellow-leaved,"

until the scarlet berries, the wild roses and the nightshade dropped upon the hedgerows. It gleamed upon the haymakers and the pedestrians until they called out with thirst. It was many degrees of heat in the shade, but the lovers stood out in the field and heeded it not.

All but the bees had left off work. Once more Bessie said "good night," and the dew gathered upon the herb. Once more the nightingale trilled forth her lay in the hay-scented air and the harvest moon rode high in the heavens. Once more the farm boy fell asleep and all the land was quiet; but love had not tired; still—still from eve till morn, from morn till eve, Robin went on with his work, sustained by love and hope.

On the third day the farmer passed by and paused with amazement to see his corn all laid by his son's single arm. Robin was very pale. He had fallen upon the stubble and Bessie knelt by his side. She held a cup to his lips. Her eyes were full of joyful tears and a prayer of thanksgiving was upon her tongue. Farmer Dimsdale approached the group slowly. He was agitated by conflicting emotions. For a moment he was silent; then he said,

"I could not have believed in this; but since it is so, every laborer is worthy his hire."

Then he took Bessie's hand and placed it in Robin's; so when the corn was garnered in Robin took the wife home he had chosen and she was a good wife to him all her days. Many a time did he sit by his fireside and tell his children how he had won her in the blessed harvest time and in the harvest thanksgiving she was remembered by him as a gift from the Lord with the golden corn.

The year is about to take up its bright inheritance of golden fruits. The Lord of the harvest gives us signs of great abundance. He hath visited the earth with his goodness. He hath watered the ridges. He hath settled the furrows thereof. He has made them soft with showers, and blessed the springing thereof; and songs of thanksgiving are ready to burst forth for the promise which He makes. Blessed be the name of the Lord!—*Moore's Rural.*

"That was very greedy of you, Tommy, to eat your little sister's share of cake!" "You told me, ma, I was always to take her part," said Tommy.

THE heart too often, like the cement of the ancient Romans, acquires hardness by time.

FOREIGN MILLIONAIRES.—Brazil is reported to contain a plntocrat by whose side the late Mr. Stewart appears almost poverty-stricken. This wonderful hidalgo recently bestowed upon his only daughter, as a marriage gift, a diamond necklace variously estimated as worth from half a million to three-quarters of a million sterling. His own property, which chiefly consists of dismond and gold mines in various parts of the world, hss been approximately valued at £80,000,000 if it conld be sold at existing prices without paralyzing the money markets of the world. At the marriage of his daughter, he presented each lady guest with a diamond bracelet said to be worth £5,000. His total expenses on that occasion, including the wonderful necklace, were reckoned at quite a million sterling. After this appalling Crœsus, the millionaires of Hindostan seem poor creatures enough. Nevertheless, there are some rather wealthy natives to be met with here and there. A Calcutta banker, named Muttee Soll Seal, used to be reported worth £5,000,000, and the "Baboo of the Seven Tanks," another monetary magnste at the same city, was said to posess even greater wealth. Sir Jamsetjee Jejeebhoy, the Parsee philanthropist, left behind him quite £8,000,000 in one form of security or another, although he had previously bestowed immense sums in chsrity. This enormous fortune started from very small beginnings, his original occupation being to pick up empty bottles at the bnngalows of European residents and sell them for a trifle in the bazaar. In commemoration of this fact the family of the deceased baronet have added the word "Bottleewallah" to their patronymic. In the opinion of the native moneyed classes, Luchmee Chund Sett, the great Muttra banker, is by far the richest man in India. No one knows, even approximately, what he is worth, but the magnitude of his capitsl may be imagined from the fact that he has agencies in all the principal and second-class towns of Hindostan.

HAPPINESS.—The idea has been transmitted from generation to generation, that hsppiness is one large and beautiful precious stone, a single gem so rare that all search after it is vain, all effort for it hopeless. It is not so. Happiness is a mosaic, composed of many smaller stones. Each taken apart and viewed singly, may be of little value, but when all are grouped together, and judiciously combined and set, they form a pleasing and graceful whole—a costly jewel. Trample not under foot, then, the little pleasures which a gracious providence scatters in the daily path, and which, in esger search after some great and exciting joy, we are so apt to overlook. Why should we always keep our eyes fixed on the bright, distant horizon, while there are so many lovely roses in the garden in which we are permitted to walk? The very ardor of our chase after happiness may be the reason that she so often eludes our grasp. We pantingly strain after her when she has been graciously brought nigh unto us.

PARTING.—Men seldom appear so humane, or in a position so advantageous to their humanity, as when they part. How few friends are there who endure a protracted separation without some abatement of warmth, or meet, by appointment, without some precsutionary anxieties, or continue together long without some accidental discontents; but none, in any degree entitled to that character, ever part without much regret! Even the cheerful and social are not always exempt from those momentary perturbations with which selfishness ohills the pulse, or controversy overheats it. The needle will oscillate a little from the just point of its affections, and though its polarity is never lost, it is seldom steady. Yet even the petulent, the irritable, and the more generous of the resentful lose all unfriendliness as they pass away from each other—sighing at a conversation which, perhaps, they may have mutually desired. The last shake of the hand is sufficient to dissipate a hundred grievances. There are then no reproaches which we can recall beside those against ourselves.

MOTHERS.—Many a discouraged mother folds her tired hands at night and feels as if she had, after all, done nothing, although she has not spent an idle moment since she arose. Is it notting that your little helpless children have some one to come to with all their childish griefs and joys? Is it nothing that your husband is "safe" when he is away to his business, because your careful hands direct everything at home? Is it nothing, when his business is over, that he has the blessed refuge of home, which you have that day done your best to brighten and refine? O, weary and faithful mother, you little know your power when you say, "I have done nothing!" There is a book in which a fairer record than this is written over against your name.—*Rural Sun.*

SMALL FARMS.—The *Semi-Tropical* says: "Small farms make near neighbors; they make good roads; they make plenty of good schools and churches; there is more money made in proportion to the labor; less labor is wanted; everything is kept neat; less wages have to be paid for help; less time is wasted; more is raised to the acre; besides it is tilled better; there is no watch of hired help; the mind is not kept in a worry, stew and fret all the time."

BY trusting your own soul you shall gain a greater confidence in men.

YOUNG FOLKS' COLUMN.

How to Write for the Paper.

[Written for the Young Folks' Column by COMUS CANOPUS.]

Among the numerous juvenile readers of our "Young Folks' Column" there are, no doubt, a great many who would like to, and in a creditsble manner could, if they only made a trial, with the aid of a little advice write a sketch, an essay or a story for their depsrtment, which would bea credit to them and to their column. But most of them do not know how to set about it; many are too timid, and a number, sometimes possessing more ability than they give themselves credit for, fear the displeasure of a rejection, and the consequence is that the most important art, composition, which every person should be tolerably efficient in, remains nntsught, undeveloped and uncultivated ino our youth.

The great mass of humanity, widely separated as it is, is constantly under the necessity of corresponding. Persons in all stations resort to letter writing as the one common carrier of intelligence, and upon it we must all depend, more or less.

When you write for a paper, do not say, in your note accompanying your contribution, "I take the liberty to send" or "I take my pen in hand." The bare fact that you write suggests that. Do not introduce your article with an apology; whatever is worth writing can be written without being apologized for. If you feel assured that an apology is necessary, you may be just as certain that yonr article will be declined. When you have selected your subject—which should always be one of which you can write without "cramming" for the occasion, —and feel that it is one that will interest those who read it, after due thought and deliberation write it out in an easy, natural style, without affecting a show of language. Much has been said regsrding the "mapping out" of a subject,—that is, making a rough sketch of it before proceeding, but, unless it is desired to introduce dates or names of persons or places likely to be forgotten, in which case memorandums are not only desirable but necessary, we would not recommend this method. It is too much like writing a letter and then copying it. Avoid all introductory or cursory remarks, but plunge right into the heart of your subject. Begin at the beginning and follow your subject through, in progressive order, so that what should be said lsst is not first, and *vice versa*. This will prevent confusion,—a thing especially to be dreaded when your subject is a much complicated one,—and enable you to present in a concise form everything you wish to say. When your theme has become exhausted, which you can tell by the difficulty with which ideas then present themselves, by all means stop; otherwise you will be liable to repeat, with only a change of language, what you said before, and your subject becomes "drawly."

Short articles are always more likely to be resd than long ones, for the reason that the short ones can be read through at an odd moment, while the long ones, to be read without interruption, reqnire more time than the reader may have at his disposal or cares to devote to the subject. For this reason sub-headings are customary in all long articles, which enable the resder to pursue any one particular brsnch of the subject.

A few words regarding materisls may not here be amiss. Do not use fancy paper or colored inks; they appear finical. Black ink or lead pencil on common paper is most desirable. Number your pages, leaving a margin of about half an inch at the top, left and bottom of your paper, and about quarter of an inch between each line. Write names and numbers distinctly, as they are most liable to be mistaken, the context furnishing no clue to their indentity. With these rnles as a guide, many of our young folks can, no doubt, produce something worthy of publication.

Solution to the Floral Letter.

The following sentiments of flowers form the solution to the "Floral Letter to a Friend" published two weeks ago, which we invited our young friends to solve:—

Beloved ohild; early youth; memory; life; recall; joy; contentment; message; absence; separation; time; surprise; cheerfulness; rural happiness; glory; grandeur; female ambition; difficulty; unchanging friendship; hope; error; constancy; folly; gossip; justice shall be done you; sincerity; sympathy; sorrow; prudence; foresight; good-nature; frankness; stratagem; reconciliation; confident; presumption; keep your promises; consolation; friendship; youthful love; absent friends; liberty; prosperity; welcome; anxious; impatient of absence; I expect a meeting; I feel your kindness; I partake your sentiments; neatness; ecstacy; goodness; you please me; I will think of it; I desire to please; gratitude; thankfulness; pity; forsaken; truth; I love; ardently; you occupy my thonghts; dreams; your image is engraven on my heart; hope; think of me; expectation; delay; success to your wishes; farewell; love; forever thine; your devoted admirer; hidden merit.

GOOD HEALTH.

Care of the Hair.

A writer in *Harper's Bazar* says: To get and retain beantiful hair you must attend to daily brushing it, occasionslly washing it, and periodically trimming it, and striving at all times to keep the general health up to the average.

Now as to brushing. The skin of the head, like that of every other part of the body, is constantly being renewed internally, and throwing off minute scales externally, and these are removed by means of the body brush. But it is not so easy to brush the hair as one might imagine. Few hair dressers, indeed, know very much about it. The proper time for the operation then, is in the morning, just after you have come out of your bath, provided you have not wetted your hair. Two kinds of brushes ought to be found on every lady's toilet table, a hard and a soft. The former is first to be used, and used well, but not too roughly; it removes ail dust, and acts like a tonic on the roots of the hair, stimulating the whole capillary system to healthy action. Afterward use the soft brush—to give the gloss from which the morning sunshine will presently glint and gleam with a glory that no Macassar oil in the world could imitate. Whence this gloss? you ask. Why, from the sebaceous glands at the root of the hair, nature's own patent pomade, which the hard brush does not spread.

Secondly, one word on washing the hair. This is necessary occasionally, to thoroughly cleanse both head and hair. One or two precautions must be taken, however. Never use soap if you can avoid it; if you do, let it be the very mildest and nnperfumed. Avoid so-called hair-cleansing fluids, and use rain water filtered.

The yolks of two new-laid eggs are much to be preferred to soap; they make a beautifnl lather, and when the washing is finished, and the hair thoroughly rinsed in the pure st rain water, you will find when dry that the gloss will not be destroyed, which an alkali never fails to do. The first water must not be very hot, only just warm, and the last perfectly cold. Dry with soft towels—but do not rub till the skin is tender—and afterward brush. Be always careful to have your brushes and combs perfectly clean and free from grease, snd place other brushes on the table for friends of yours who happen to be Macassarites.

Pointing the hair regularly not only prevents it from splitting at the ends, but renders esch individual hair more healthy and less attenuated—if I may apply the term to hair—and moreover, keeps up the growing process, which otherwise might be blunted or checked. Singeing the tips of the hair has also a beneficial effect.

It will be seen that I am no advocate for oils and pomades. My advice in all cases is to do without them if you possibly can, for by their clogging nature and overstimulating properties they often cause the hair to grow thin and fall off sooner than it otherwise would. Let well alone.

One word in conclusion, about dyes. Avoid them if you be your own friend. Hair dyeing is very satisfactory as far as dead hair is concerned, but on the living head its perfect success is a chemical impossibility. As to hair restorers, those that are not simply stainers, but depend upon the action of the light chemically altering and oxidizing the application atter it has been used—their incautious use, I must add, is fraught with great danger.

A NATURAL DISINFECTANT.—Some interesting experiments were made very recently at Campbell's sewage works, Wandsworth road, London, with a new substance which is practically animal charcoal, and which will probably find extensive nse at no distant date in purifying the effluent water of distriots that treat their sewage by precipitation, in clarifying the waste water of dye works and mines, and the thousand and one other ways that will suggest themselves at once to persons conversant with sanitary matters. It is the product of a company that owns some 1,200 acres of the district on the Dorsetshire cosst where the famous Kimmeridge shale deposit is found. This is a deposit which is of undoubted animal origin, and is supposed to consist of blubber, fish and other forms of marine animal life. However this may be, the shale is found to yield more plentifully than cannel coal, and at less expense, an excellent carbon, one ton of the shale, after giving off 9,000 cubic feet of gas, leaving 11.6 cwt. of residue, which is the sanitary carbon in question. This substance is found to have precisely the same properties and action for all sanitary purposes as animal charcoal that costs from £14 to £18 per ton, and the company hope to be able to produce it for one-fourth the price. The experiments adverted to, consisted in running sewage through a layer of the sanitsry carbon, when the effluent wator came out as clear as crystal. A more crucial trial still was made by mixing sewage with a compound of ink dye stuffs in solution, forming a liquid more intrsctable than would ever be met with in actual drainage operations, but the result was the same, the water running off perfectly clear, with no perceptible odor.

DOMESTIC ECONOMY.

Meat Safes or Closets.

As the season advances, many housewives will feel the necessity of a meat safe, wherein various kinds of food can be kept from the flies, and also receive a good supply of fresh air, and not be so damp as to promote mold. Any ingenious man or boy, who possesses suitable tools, can construct a box which will answer a good purpose, in a short time. The lower box can be made of any dimensions desired, and square in form. The frsmework csn be from three to four inches in depth, and sawed from boards of three-quarters of an inch thickness. They can be nailed together, or a neater way would be to dovetail them at the angles, after they have been smoothly planed. Then the cover must be constructed, and it should be made in a curved shape. To do this either osier or cane split longitudinally will be required. A wooden frame must be made to fit closely over the inner box, and at the four corners the pieces of cane must be fastened. To do this advantageously, it will be needful to bore a small hole through the cane, taking care not to split it, and then it can be attached to the corners by a small screw. In the center, where the supports meet, a screw with a brass ring attached can be made to fasten them, and it will make a good handle by which to lift the ssfe, if its dimensions are so small that it can be readily moved.

When the framework is prepared, wirework can be fastened all over it by means of small upholsterer's tacks or tinned tacks. Then take small strips of wood and nail them along the edges of the box to secure the covering tightly. Mosquito netting or strainer cloth can be substituted for the wirework if it cannot be easily obtained. Such a meat safe will be found of great use in excluding insects, and more than one will frequently be desirable to the housewife, to whom small portable safes are always acceptable.

The one described above is of a square or oblong shape, as best suits its maker, bnt a round one will often be useful, and the hoop of an old sieve can be made with a curved roof by glueing the covered steels of old hoop-skirts over it, and covering them tightly with mosquito netting.

But a sizable closet fitted up with shelves and enclosed with wirework frames and doors will be of greater utility during the oppressive heat of the summer, and if it can be kept in a cool, northern exposure it will be of much service. Such a closet or meat safe can be built out-of-doors, bnt care must be taken to place it where the sun's rays do not strike it, and it should be built up on stones or bricks at least three feet from the ground. It can then be made of inch boards smoothly planed, and the roof must have a sufficient inclination to shed the rain, and also project over the sides for better protection. The boards for the floor and the roof should be matched and fastened tightly together, and the roof may be covered with felting or zinc. The back part of the frame should be of the same boards ss the floor and roof. Then a framework must be made to fit closely into the other sides, and covered with wirework.

The front should be made with doors hinged at the two ends and rabbeted at the center. A stout strip of wood must be nailed to the side supports, upon which to hang the doors. Their covering, and that of the sides also, may be of coarse canvas, but it would not be as desirable as the wirework. Zinc, perforated with holes, could also be used, and it has the advantage of never rusting, nor needing to be painted, while the wirework must either be painted or galvanized.

When the "safe" is made, some shelves and hooks must be added. The hooks can be inserted from the roof, and all fresh meat csn be hung from them. A safe four feet in length and three feet in hight, would be of convenient size for family use, and it would be found to have more than paid for its cost in the saving of various articles of food during the first summer of its use.—*Daisy Eyebright.*

CORN AND RYE BISCUITS.—Pour boiling water on coarse yellow corn meal, and stir to the consistency of a thick batter. Immediately add coarse rye meal to make into a very sott doe; form into small, flat biscuits (fifteen to a baking pan) with the hands frequently wet in cold water, and bake immediately in a hot oven. They are very nice for variety, and are best made of equal parts of corn and rye. Bake thirty minutes or more.

BAKED OMELET.—Boil half a pint of cream, or rich milk; beat six eggs thoroughly—they will be nicer if the whites and yolks are beaten separately; have a deep dish hot and buttered; stir the beaten eggs, with a little salt, into the cream; put all quickly into the dish, and bake from five to ten minutes, depending upon the condition of the oven. It should be lightly browned, and taken directly to the table in the dish.

MOCK APPLE PIE. For a large pie-plate, two crackers (milk or soda), one egg, one cup of sugar, one of water, and the juice of one lemon; add a pinch of salt, and spice with nutmeg or the rind of the lemon. This is quite a tolerable counterfeit.

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PRINCIPAL EDITOR.....W. B. EWER, A. M

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Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, July 8, 1876.

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Our Beautiful Premium.

After canvassing the merits of many fine pictures in the selection of one that would be both valuable and desirable for our readers, we have selected, as our leading premium, a beautiful chromo entitled "GATHERING PRIMROSES." The print itself is 17x22 inches in size.

The scene represents early spring clouds and sky, a tinted water view with distant hills, a near thicket, and several old mistletoed trees, beneath whose bare branches two charming lasses, with delighted faces, are gathering the bright early flowers.

We have yet seen no premium chromos offered which we think superior, or even equal to this in beauty and attractiveness. It is a pleasing composition for the adornment of either a country or city home. Our full premium list appears in another column.

A LOCOMOTIVE SALUTE.—Among the specialities arranged for the Centennial celebration was one devised by Mr. Fellows, of the Central Pacific railroad, which was rather unique. On the morning of the Fourth, twenty or twenty-five locomotives were coupled together and backed up to Brooklyn on the overland track. Just at five o'clock they all commenced whistling in chorus and were run slowly down to the round-house, rousing nearly all the citizens of Oakland at that early hour to commence the celebration. The programme was kept quiet, and no one knew that anything of the kind was going to occur. The engines were decorated and presented a handsome sight.

HALF A MILLION SACKS.—We are informed that Dr. Glenn, of Colusa county, laid in 500,000 sacks for this year's crop. It took two full boat loads to carry them up. The yield of the Glenn farm this year is estimated to be 30 bushels per acre.

The Dairy East and West.

We print in our Dairy department this week an allusion to California dairying by Hon. X A. Willard. He gives our coast many and important advantages over the East for the practice of dairy husbandry, and where a writer whose interests are all elsewhere is so frank in the recognition of our advantages, it may seem greedy to claim more. According to Mr. Willard's own acknowledgment we are the rich man of the parable and he the poor man, with nothing in possession but a very little lamb. Would it be greedy to go for that lamb?

In his article, which we quote, Mr. Willard recounts our advantages and then says: "The permanency of Eastern grasses, Eastern skill and system in manufacture, Eastern nearness to the markets of the world, must compensate for the rigors of climate and other disadvantages which do not obtain in more favored sections." We do not propose to dispute these possessions of the East nor to speak slightingly of them, but let us see whether we do not largely enjoy them as well as our Eastern friends.

In the first place, we have permanent grasses and forage plants which cannot be surpassed. In the coast counties, to which Mr. Willard alludes, the richness of the pastures is furnished by the "rooted grasses," as they are called in distinction from the "seed grasses" which are the mainstay of the dairymen of the interior. Upon the rooted grasses depends that quick growth of feed which springs up almost by magic as soon as the early rains touch the fields. The rich alfilarea covers the ground like a carpet, and a host of other forage plants, which are as permanently rooted in the soil as any Eastern grass, give our feed a speed of early growth and elasticity of endurance which cannot be surpassed. It is true that where the dependence of the dairyman is upon the wild oats and other seed grasses, as is the case in some of the interior regions, the feed is rather slower in coming and less tenacious of its freshness than on the coast lands, where the frequent fogs give continued moisture and induce continuous growth. On our best coast dairy lands we believe the feed both for quality and duration is excelled by nothing in the East.

Whatever of disadvantage pertained to dairying on the transient seed grasses is being rapidly overcome by the use of alfalfa. The wonderful growths of this plant which have been obtained in this State are a subject of remark everywhere. Ever springing up fresh and succulent so long as water is brought to its roots, it gives a wealth of rich fodder and sustains the flow of milk most satisfactorily.

Mr. Willard notes, as an advantage of the East, the skill in manufacture and the system in manufacture. We had occasion to remark a few weeks ago that the dairy skill of this State was too often underestimated. We say this with no disparity for the East, because we have some of the best Eastern cheese makers now at work here, mastering the new conditions and achieving success. Aside from this one point let the product be the evidence of the dairy skill. Mr. Willard speaks of the fine quality of the Point Reyes butter. If Mr. Willard should visit Point Reyes to-day, he would see butter factories which for convenience of plan, excellence of apparatus, and intelligent, thoughtful workmen, are unsurpassed in any dairy region in the country. Mr. Willard says that the butter shows that the Point Reyes feed makes good milk. It is true, and one thing more is true, viz: the handling of the milk and cream and butter is on the most approved principles; everything is done to transfer the excellence of the milk to the excellence of butter. In all our observation of butter making on a large scale, we never saw the purity of the milk better guarded, the proper condition and temperature of the cream more closely observed, and the treatment of the butter globule more gentle in all its manipulation from the churn to the mold, than in the factories operated by Mr. Howard's tenants. Nor is Point Reyes alone in this perfect skill of handling; we see in our city markets many samples of butter which show the skill of the makers very clearly. We are sure from these that there are other establishments which we have not yet visited which also possess this valuable secret of skill.

Mr. Willard speaks also of system of manufacture. We are not sure whether he refers to method in manufacture or to the famous associated system of the East. If it be the latter, we can only say that it seems to us, from our observation, that the California system of large dairies is more conducive to milk of uniform purity, and butter of uniform quality, than the Eastern system of associations of small dairies, each with a different idea of cattle, feed, and care, and each with a different degree of care of the milk. Mr. Willard knows of many instances at the East where the product of a number of factories has been much improved by bringing them all under the management of one man of superior skill in practice and in supervision. It is not otherwise here in several instances which have come under our observation.

Mr. Willard claims the "nearness to the markets" of the world as an advantage of Eastern dairymen. Let us see. Of course if we had, under present conditions, a production of dairy goods as great as that at the East, we should be utterly at a loss to dispose of it; but this is not the question. The opportunity for the dairyman lies in the chance for growth. It is just such an opportunity as this that exists here on this coast. We have, first, a market which cannot be surpassed in its nearness, and that is our home market. To cut off the importation of Eastern dairy products comprises one of our dairy opportunities. Besides this, we have the chance of putting fresh butter on the Eastern markets when the price is highest in the early spring, and there is now opening, with much promise, a trade in cheese with China. Cheese coated with a thin varnish of shellac has been shipped across the Pacific with good results. If we can develop a trade in cheese with the teeming millions of Asiatic empires, we shall have a field for extensive consumption of our cheese which will rival the English demand for Eastern. This is a field which promises much and which should be investigated.

We make these points concerning the kind notice which Mr. Willard makes of our dairy advantages, merely to show that it is neither the fortune nor the spirit of the State to be far behind in any of those things which constitute success in any enterprise which depends upon the quality of our natural resources or the skill of our laborers.

The National Holidays.

Dispatches from all parts of the State bring tidings of patriotic and spirited commemorations of the nation's birth. The local celebrations throughout the State were planned with unusual care and executed with unusual liberality. They were witnessed by large concourses and the Centennial spirit ran high.

Readers in distant parts will doubtless be interested to know some of the points of the three days' celebration in this city, and how the great things which we described in last week's PRESS were realized. Let us say first, in a general way, that the celebration was of such a grand and comprehensive character, awakening such general participation among all citizens, and was witnessed by such a concourse of the city's guests from all parts of the coast, that it will be always memorable. Never before has anything like it occurred; but so rapid is our growth and progress, one cannot tell how soon it may be surpassed in the future. If before the nation's second Centennial our State and city advance in the proportion they have during the last quarter of a century, what we shall call great to-day will be small indeed.

The Decorations.

As early as Friday before the Fourth, the city began to deck itself in Centennial livery. The stars and stripes were woven and interwoven into every conceivable shape and form. The beautiful red, white and blue colors tinged, edged, and crossed our somber city marts and business blocks until even the lower part of the city seemed crowned by a halo. Farther up, upon the hillsides, the decorations waved in graceful lines and shapes. The mansions of the wealthy were brilliant with gilt and colors, but many an humble habitation outstripped its proud neighbors in the fullness and grace of its patriotic drapery. During the day time the breeze was resonant with the flap and rustle of the flags, and at night the city was ablaze with colored light and fantastic lanterns. Some of the private and public decorations were notable, but we have no space to particularize. Suffice it to say that several streets were embowered with festoons of flags from roof to roof across the walks and carriage way. Arches were sprung across the streets bearing the national colors and the portraits of patriots. Large canvas sheets reproduced the scenes at revolutionary battles. Never before has the city shown such a bright attire. Everyone bought flags until the flag market was cornered, and even colored cambric increased its price six fold. We doubt not that a million dollars would be a low estimate of the amount of money expended for the one item of public and private decoration.

The Days of the Week.

On Saturday and Sunday the churches spoke the patriots praise. Sermons were on appropriate themes, and choirs sang patriotic anthems with thanks to God for the day. Special services of praise were held in some of the churches and the populace surged around the doorways unable to reach the densely packed areas within. Thus the week began with thanksgiving.

On Monday the incoming thousands from the country crowded the avenues of travel and the hotels were besieged for accommodations. Even the chairs in the waiting rooms were engaged and turned to temples of Somnus. In the early morning the throng tended upward, and took possession of the hillsides overlooking the scene of the

Bombardment

Which we illustrated last week. The hills were black with people, and when one considers the large stretch of surface which looks down upon this part of the bay, some little appreciation of the numbers can be formed. A little before noon the firing from the forts and ships began. The first shot was hailed with gladness by the throngs, and for three hours the crowd watched the puffs of smoke and the fall of the projectiles and heard the reverberation of the explosions. The firing of the guns contained many points of interest to the one unacquainted with such occurrences, but the general feeling was one of mild disappointment. The people expected and anticipated too much. Many expected, doubtless, to be well nigh prostrated by the thunder of the reports and to behold an exciting scene of circling vessels, belching broadsides, and a ship fired by the shots. The distance of the spectators from the guns made the reports but dull growling, the long minutes which intervened between the shots bore heavily, and the stationary frigates, which one expected would circle around their prey and seize it in exciting action, coldly and calmly fired for three hours and never once hit the mark which the throng was watching, and failed to fire the doomed craft until a small boat was sent out to apply a match. The absence of what anticipation pictured gave the bombardment a bad name in many a month, and yet if the beholder will recall the spirited scene upon the water, the fleet of small steamers flying hither and thither, decked with a multitude of people and clad in streaming flags, the three-mile flight of solid shot and shell and other interesting points which will recur to memory, the bombardment will seem a notable feature of the week's events.

The Sham Battle

Which occurred on Monday afternoon at the Presidio was more stirring and consequently more generally applauded. The evolutions of the infantry, the dash of the cavalry and the discharge of the field batteries won the full interest of the multitude and gave them a full taste of mimic war.

The Fourth.

The glorious day lost no luster from the stirring day of rejoicing which ushered it in. At an early hour the city was fully awake. The most intense excitement prevailed everywhere. The streets were soon overflowing with people, and numerous processions began to march in various directions, all clad in the gayest and and most gorgeous decorations, and forming to join in the procession of the day. By 10 A. M. the streets were literally lined with men, women and children thronging the sidewalks, sitting on the curbstones and stoops, and in every available position, while all the balconies and windows along the route of the procession were filled with fair faces and expectant eyes. Positions had been engaged weeks beforehand of the happy owners of a door or window along the line of the procession, and every room was filled by friends and acquaintances, who crowded in to witness the grand march. Multitudes had come in from the country, and the streets were literally blocked with a crowd which increased until room for more could not be had. The great procession which moved before the eyes of all was formed of at least 10,000 men. Civic, military, social and commercial organizations were represented. Trades were displayed by appropriate vehicles and decorations. Two hours were required to pass a given point, and the beholder turned away in a whirl of excitement over the changing scene.

The literary exercises which occurred in the Mechanics' pavilion after the grand parade were of a high and patriotic order. They consisted of an address by General Coey, prayer by Rev. W. H. Platt, oration by Rev. Dr. Stebbins, song by Mrs. Banta, and poem by Mr. J. F. Bowman. Afterwards a collation was served, at which addresses were made by Governor Irwin and others.

The remainder of the day was occupied with a carnival and with fireworks, torchlights and all the traditional glories of the old fashioned July Fourth.

As we write (Wednesday) the holidays continue. Still the flags wave and the bands parade the streets. Upon the bay the white winged yachts are racing. Come to-morrow's sun, and our business houses and banks will throw open their doors again, and the work of the new century will begin. No one now living will forget the scenes of its beginning. Bright be its day and great its achievements.

A NEW PASTURAGE LAW.—Congressmen Hale of Oregon and Wigginton of California have prepared a bill to regulate pasturage lands in arid regions, and it has been introduced in the House of Representatives. The bill proposes to give 2,500 acres of desert land to any man who will live upon it five years. The grant is subject to certain conditions concerning the use of water and location of land in respect to streams. We shall watch the progress of the measure and inform our readers of it fully if the Washington law makers give it force by passage.

FRUIT JARS.—In our advertising columns will be seen an illustration of "the Gem" fruit jar. As we know by experience that it is a good article, we take occasion to call the attention of our readers to the notice of the San Francisco and Pacific glass works, and to the fact that they manufacture these superior jars. Mr. Carlton Newman, manager of the works, is a person of long practice and experience in glass manufacturing, and the patentee of some very ingenious improvements in his trade.

ON FILE—"Overland Chat, No. 4." Mary Mountain; "Notes from Placer County," K.; "Irrigation," J. M. H.; "Still on the Prospect," G. K. M.; "Flax," J. W. W.; "Straw," "Missourian."

[Editorial Correspondence.]

The Centennial at Philadelphia.—No. 8.

My last letter brought the notices of foreign exhibits in machinery hall to a close, and I now propose to pass in brief review our own exhibitors, previous to instituting any inquiry in relation to the comparative merits of the two. By reference to the diagram it will be seen that fully three-quarters of the entire space in mechanics' hall is occupied by the United States; this space, however, is largely filled up by the frequent repetition of the same classes of machinery by different exhibitors, the tools and implements varying only in the modifications of construction adopted by different builders. Previous, however, to reaching the tools, I would ask the reader's attention for a moment to a very interesting exhibit from the

Midvale Steel Works.

These works, located about five miles from Philadelphia, may very properly be regarded as the model works of the kind in the United States, and are under the management of Mr. William Sellers, one of the most thorough and progressive mechanical engineers in the country. This exhibit, moreover, forms the basis of that which follows; as all the iron and steel which enters into the construction of the tools which Mr. Sellers' exhibits, as well as those of several other exhibitors, is made at these works. The display is located in the second tier of full sections from the south wall of the building, and adjoining the English exhibit. We have here a most interesting and instructive show of heavy cast steel forgings, tool steel, ingots for rails, car wheels, axles, etc. They show one steel ingot which weighs 7,000 pounds. They also make a very interesting exhibit of the process of manufacturing car and locomotive wheels; the work is shown in every state of its progress, from the original bloom to the complete wheel, some eight or ten stages. The mode of casting is very peculiar and careful, necessarily so from the importance of the manufacture, as one on which, more than any other one thing, depends the safety of railroad traveling. The same is shown in regard to the manufacture of car axles. So successful has this company been in establishing, from tests and practical wear, the reputation of its wheels and axles, that the Pennsylvania Central, the most extensive railroad connection in the world, refuses to use either wheels or axles for its passenger cars from any other firm. The Siemens-Martin steel is used for tires and other heavy purposes, but for tools, crucible steel is employed. At some future time I hope to find leisure to visit these works and describe them at length, with illustrations.

An Improved Rotary Puddler.

At the time of my visit to this exhibit, workmen were engaged in putting into place a mammoth iron cylinder and furnace, which I was informed was an improved rotary puddler, upon which Mr. Sellers has recently been at work. This furnace is to be exhibited in motion, although not charged with the molten metal as when in actual work. It seems to be characteristic of Mr. Sellers that he must always be inventing—improving everything that comes into his hands. Thus, he is not satisfied with the Danks or any other machine puddler, but must have a Sellers puddler; and if we are to judge in this instance from his past record, he will give us something really valuable in this direction. A perfectly practical machine puddler would be one of the greatest boons which could be conferred upon the producer of iron. The Danks puddler appears to be a success; but if Mr. Sellers can furnish us anything still better, we should like to see it. The employment of the cheapest and best methods of producing iron is the only means by which this country can hope to successfully compete with foreigners in the industrial arts generally.

Machine Tools.

The general exhibit of machine tools in this building is the most remarkable of the kind ever brought together. There are a large number of exhibitors—some twelve or fifteen in number. The first and most extensive collection on the floor as we pass down the building is that made by Sellers & Co. Mr. S. was one of the few Americans who had the enterprise and courage to make anything like an extensive exhibit in this line at Paris and Vienna, and as a reward for his skill and enterprise and the superiority of his exhibits, he was honored at both of those places with the highest awards made—at Paris with the grand gold medal and at Vienna with the diploma of honor. The latter was more than a mere acknowledgement of superiority in skill, for it was also designed to convey the idea that its recipient had achieved eminent merit in the domain of science and the application thereof to the advancement of the intellectual, social and material welfare of mankind. That award may be considered the highest honor ever conferred upon any industrial pursuit.

As a result of that exhibit, many of the machine tools constructed by this house have been adopted as patterns by machine tool makers in Europe: and thus American ideas and practice, the germs of which were drawn from the old world, are gradually finding their way back again, enlarged and improved by their manipulation here.

The tools exhibited by this firm here are substantially the same as those shown in Europe; but with the never ending desire of their manufacturer to improve and keep ahead of all competitors, he has since, from time to time, introduced such improvements as he has thought would give them additional value. Tools, like everything else capable of modification, are constantly undergoing changes; but unlike many other things brought under the universal influence of change, these useful devices for aiding man in his labors are usually bettered by the process, for the reason that any alteration in a tool that does not improve it is promptly discarded and can never win its way to popular favor. The smallest changes often work wonders in a tool before thought perfect; hence the ingenuity of man is never at rest. A little here and a little there a thought here and an inspiration there—adding and taking away, is the history of every invention which comes from the brain of man.

We have no space to describe or even make the briefest mention of all the exhibits, and can only refer in a very few words to the most notable ones: One of the first that attracts the attention of the visitor is a gigantic planing machine, capable of finishing with the utmost precision a mass of iron ten feet high, ten feet wide and thirty feet long! The machine is also so constructed as to be capable of finishing an object on three sides at the same time. This invention is flanked on either side with smaller tools of the same description. Near by is a large plate shearing machine, a tool which cuts through inch iron as readily as ordinary hand shears cut paper. This machine will cut inch plates five feet in width at a single clip. It is used for cutting and trimming long sheets of iron and for bridge purposes, or for columns and girders. Near this exhibit is a steam hammer the pattern of which was originally borrowed from Morrison, of England, but which has been greatly modified and improved by translation to our American shops. Three sizes are shown, of 300 1,500 and 5,000 pound hammers.

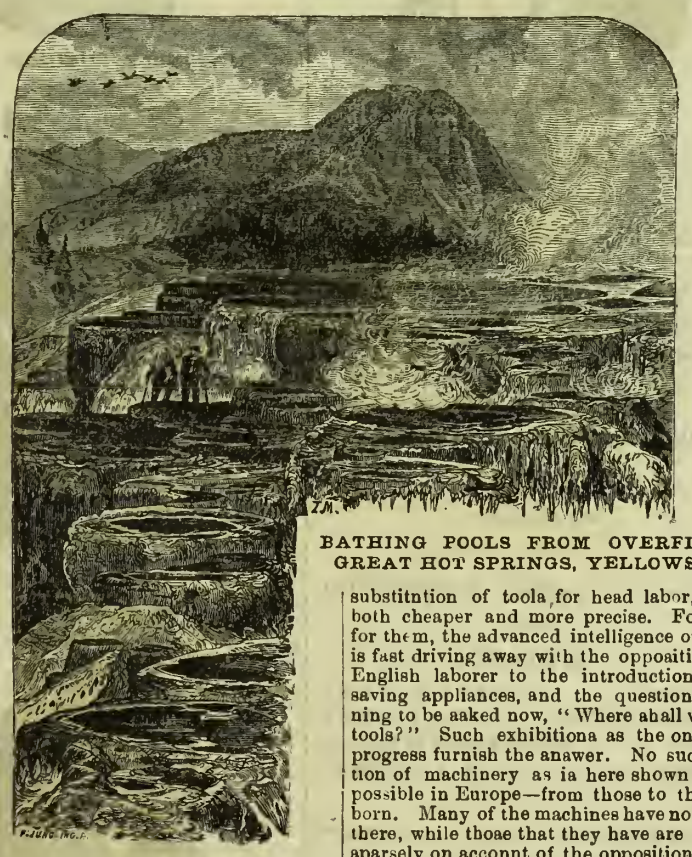
Immense hydraulic presses for forcing locomotive wheels upon their axles and large lathes for turning them are also shown, as well as numerous smaller ones. Another very interesting machine, and quite a novelty in its way, is an automatic gear-cutting machine for cutting bevel and spur wheels. This is a great labor saving machine, and, we believe, is one of Mr. Sellers' own inventions. There is also a new and peculiar machine for shaping hexagonal nuts, the work which is of accomplished by six cutters, which finish the nut with a single cut upon all its sides at once. Mr. S. exhibits a cylinder boring machine, which it is claimed will finish complete a locomotive cylinder in three and a half hours! He also shows a riveter which has a hydraulic pressure accumulator that will give a pressure of 6,000 pounds to the square inch. Not much chance for a rivet to escape being jammed well down under such a pressure! Nearly all the iron work in the main exhibition building was riveted by these machines.

Machine Tool Making in England and America.

Machine tool making, as a distinct branch of industry, is of quite recent origin. Machinists formerly made, each for himself, such machines as they needed in their shops. The result of such practice was very imperfect tools, and still more imperfect work was obtained from them. Mr. Joseph Whitworth, of England, has done much to secure precision in tool making, a condition which the delicate and intricate state of manufactures now demands; and especially the practice recently introduced into this country of manufacturing machines and implements by "assembling," or making all the parts of a machine interchangeable with others of the same class and size, as in Colt's pistols, American watches, sewing machines, etc. We believe Mr. Whitworth was the first to urge upon machinists throughout the world the adoption of certain conventional standards which have now come into general use. As early as 1848 Bancroft & Sellers, now Wm. Sellers & Co., commenced the manufacture of machine tools, and from that time to this that firm has kept at the head of the business, both in regard to perfection of manufacture and extent of business carried on. As an evidence of the perfection which Mr. Sellers has attained in his manufacture, he shows here a machine for the production of true surfaces, so accurate in its work that two straight edges of steel, when finished by it and pressed together perfectly clean and dry, will adhere so closely as to require considerable force to separate them. A special piece of work of this kind was recently executed in England by Mr. Whitworth, which was heralded all over the world as a most remarkable triumph of the precision to which that eminent mechanic had arrived in finishing off his work. Mr. Sellers does this every day, and the fact would scarcely have been thought worthy of record, had not your correspondent in seeing it been reminded of the publication in regard to Mr. Whitworth, and which was noticed some three or four months since in the Mechanical Progress department of the SCIENTIFIC PRESS.

The introduction of American tools into the English market, as above alluded to, and American ideas into English shops, is a very significant fact, and worthy of a prominent niche in the records of our first hundred years of mechanical progress. Our English cousins have become convinced that, in order to hold their place in the mechanical world, they must copy after the Americans in a more general substitution of tools for head labor, as being both cheaper and more precise. Fortunately for them, the advanced intelligence of the age is fast driving away with the opposition of the English laborer to the introduction of labor saving appliances, and the question is beginning to be asked now, "Where shall we get our tools?" Such exhibitions as the one now in progress furnish the answer. No such exhibition of machinery as is here shown would be possible in Europe—from those to the manor born. Many of the machines have no existance there, while those that they have are used but sparsely on account of the opposition of workmen to their more general introduction, which still prevails. The general spread of knowledge and liberal ideas, greatly aided by district, national and international fairs, are working important revolutions, which will continue to go forward and tell largely upon the world's progress during the next hundred years. We of the present generation cannot witness the results, but our children's children will, and may we not hope—have we not good reason to believe—that such progress will be equally as fruitful in results as those we see before us to-day, as the result of the last hundred years.

W. B. E.



BATHING POOLS FROM OVERFLOW OF GREAT HOT SPRINGS, YELLOWSTONE.

Bathing Pools of the Yellowstone.

The accompanying engraving shows another of those interesting scenes in the Yellowstone country, which Prof. Hayden has described so pleasantly in his "Geological Survey of the Territories." The scene in question represents a general view of the overflow of a great spring on Gardiner's river. In describing it Prof. Hayden says:

Before us was a hill 200 feet high, composed of the calcareous deposit of the hot springs, with a system of step-like terraces which would defy any description by words. The eye alone could convey any adequate conception to the mind. The steep sides of the hill were ornamented with a series of semi-circular basins, with margins varying in hight from a few inches to six or eight feet, and so beautifully scalloped and adorned with a kind of beadwork that the beholder stands amazed at this marvel of nature's handiwork. Add to this, a snow-white ground, with every variety of shade, of scarlet, green and yellow, as brilliant as the brightest of our aniline dyes. The pools or basins are of all sizes, from a few inches to six or eight feet in diameter, and from two inches to two feet deep.

Overland Chat.

[Written for the PRESS by MARY MOUNTAIN.]

The Weber river, swollen with melting snows, had washed away the track, and passengers were transferred with difficulty, for the place was rough and swampy and teams very scarce.

When our car came up late from Ogden, the teams had gone, and we had to make the dismal transfer on foot, wading through wet grass and wondering about snakes. When we reached the waiting train, there were the familiar faces we had traveled with from San Francisco, but nearly all looked fagged and fretful after the weariness of 30 hours' detention in so dull a place.

All through Wyoming the country was extremely desolate, and snow-capped mountains not only in sight but so near the track as to give us a cold, keen air. At Rawlins, near the summit, we waited at night for the passing of

The Famous Fast Train,

Which has been the great topic of the day among the railroad men everywhere.

To see it come in like a flash, wait three minutes to examine boxes, change engines, etc., and flash off again like an arrow from the bow, was a sight worth keeping awake for; but our sleeping comrades growled over the "great bother and fuss about nothing."

To cross the continent in less than 84 hours seems fast enough now, but I fear it will at the next Centennial be quoted against us as evidence of our slowness.

At a place called Bushnell, a small station in the extreme west of Nebraska, we found considerably excitement over the report that a band of Indians from the Black hills were on the war path, and had just shot three men near the town.

By and by a one-legged man, with his hand tied up, came on board our train and said he had been in the fight, had seen the three men killed and had lost the thumb of his right hand, but having a good horse he had escaped with his life.

All our talkers about this time expressed very decided opinions as to the duty of the Government in the

Black Hills Business,

And it seems a pity that Congress could not reap a little from this rank growth of wayside wisdom.

At Brule, another small station, we saw such queer houses of sod, with grass and weeds growing on the roof, and little children growing inside.

And now we sped away over the rich plains of Nebraska, where there seemed grass enough for all known cattle. We saw an immense herd of thousands, with herders galloping among them; and again, at a distance, a few buffalo, and quite a herd of antelope feeding near them. At least we were sure of the antelope, but could not make out, even with our glasses, whether the buffalo were quite shaggy enough.

We ought to have had an "old trapper" along to point out the wonders of the plains, that were often overlooked from trying to see too much on the wide horizon.

Arriving at Omaha, we rested a night and a day, and had the pleasure of meeting a young man whom we had known well as a boy in California. He had been homesick for California and in the habit of watching the incoming trains for a familiar face. It was too dark to see our faces, but he saw that we were in trouble and kindly offered to assist us.

It seems that the great Union Pacific has a shabby house of its own at this station, and hoping to fill it from every train, no carriage or hotel runner is allowed within the station limits. But guided now by our

"Good Samaritan"

We marched off up town, and on the way he asked, "Have you ever known anybody in a town called Knight's Ferry? Have you known a man who lived there by the name of Locke?" Down went the big basket on to the sidewalk, and with hand extended the weary pilgrim cried, "That is my name, sir, and now who are you?"

"I am Arthur Porter, and lived there near you several years ago," etc.

All this made Omaha lively and pleasant for us, although there is some complaint of dullness, and that Council Bluffs across the river is skimming the cream of business.

Resting at this point cost us the loss of our pleasant comrades, whose through tickets did not permit much loitering by the way. We could not get six months excursion tickets as we had expected, and none are offered for the round trip for longer time than 60 days; but a first-class ticket from Omaha to Philadelphia is now $36, with a prospect of further reduction.

June 7th. All day we have been riding through Iowa and northern Illinois, with a constant enjoyment of the varied beautiful country. Farms and farm buildings generally look well; villages a little raw but cheerful enough, and the large towns substantial and prosperous. Seeing the country in its spring-time freshness, you are sure to give it your heart, and forgetting

"The Winter of their Discontent,"

You will say, "These people ought surely to know when they are well off, and if they are not contented who can expect to be?" We see their belts of cottonwood planted for windbreaks, and in the lee of those I hope the orchards will grow.

Breeders' Directory.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

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J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

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PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

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A. G. STONESIFER, Hill's Ferry, Stanislaus Co. Cal., breeder of Pure-Blooded French Merino Sheep

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

T. A. WILSON, Grayson, Stanislaus county, Cal. Breeder and Importer of Spanish Merino Sheep.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

M. FALLON, Cor. Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Fowls for Hatching from Pure Bred Fowls.

GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W. H GROVES, Stockton, Cal. Eggs for sale from Choice Pedigree and Selected Light Brahmas, White and Brown Leghorns. For prices and description address as above with stamp.

SWINE.

ALFRED PARKER, Bellota, San Joaquin Co., Cal., Breeder of Improved Berkshire Swine.

Live Stock Notices.



We respectfully call the attention of Farmers and Stock Raisers to our large and superior flock of Angora Goats. We have about 300 head of Pure Breed Angoras to select from, some of which are superior to any in America. Our prices are set according to the merits of the animal, and everything guaranteed to be as represented. Send for circular. LANDRUM & RODGERS,
Watsonville, Santa Cruz Co., Cal.

THOROUGHBRED SHEEP FOR SALE.

The undersigned offers for sale his entire herd, consisting of 150 head of Thoroughbred Spanish Merinos, Bucks and Ewes. The Sheep are good, and in good condition, and will be sold reasonable. For further particulars, enquire of

A. C. PAULSELL,
Stockton, Cal.

THOROUGHBRED SHORT-HORN CATTLE FOR SALE.

The undersigned offers his entire herd of Thoroughbred Cattle for sale on very reasonable terms. Also, one fine Graded Cattle.

JOHN BREWSTER,
Galt, Sacramento Co., Cal

THOROUGHBRED SPANISH MERINOS.



Sixty one and two year old Spanish Merino Rams For Sale, also 100 Ewes and Lambs, all California bred, from stock imported from Vermont, and as good as any on this Coast. Prices to suit the times. Address, B. F. WATKINS,
Santa Clara, Cal.



Pure Blooded French Merino Rams

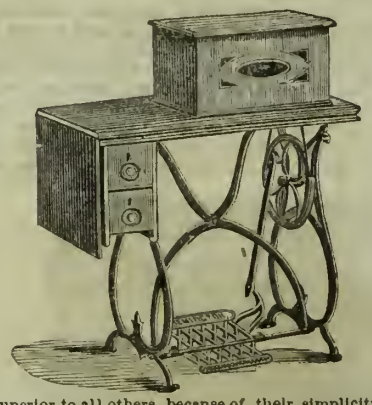
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For sale by MRS. ROBERT BLACOW, of Centerville, Alameda county, Cal., near Niles Station, on the Western and Southern Pacific railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proven to be the heaviest shearers in the world.

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Superior to all others, because of their simplicity of construction: the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

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CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

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A. D. LOGAN.....	Colusa	DR. T. FLINT.....	Hollister

Statement, December 31st, 1875.

TOTAL RISKS WRITTEN.....	$3,845,189.00
TOTAL PREMIUMS.....	79,301,72
LOSSES PAID.....	821.00
ASSETS DEC. 31st, 1875.....	170,907.41

☞ Farm Property insured at actual cost on the Mutual Plan. Other desirable property insured, and rated according to merit.

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The preserving of Fruits by hermetically sealing in glass jars has increased rapidly in the last eight or ten years, so that to provide a store of fruit and vegetables in their natural condition for winter use is becoming not only a necessity, but is a provident measure, alike conducive to health and pleasure.

The Gem and Porcelain Lined Jars

Possess all the advantages and none of the disadvantages of other patent jars, and are in fact the only reliable self-sealing jars in market. Each makes its joint on the flat shoulder, blown in the glass, on the outside of the mouth of the jar, and below the top. The surface of the shoulder on which the joint is made is perfectly smooth. The rubber being outside and below the top of the jar, the syrup cannot be exposed to it, to taint and discolor it; at the same time its shoulder, blown in the mold, on which the rubber rests, corresponds with the thread on which the screw fastening works, so that it insures equal pressure on all parts of the cap and rubber ring, thereby insuring a tight joint. These jars have arrived so near perfection there is no hesitation in warranting every jar to preserve fruit an indefinite space of time if care is taken.



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This jar has a groove in the top of ring in which a tin cap is placed, after which the wax is poured into the groove, thus making a hermetic seal. This is a very reliable and cheap jar, costing about one-third less than the patent jars.

The testimony of physicians, added to the experience of many, corroborate the belief that acid fruits preserved in tin cans are very unwholesome.

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Mr. Lee H. Utt, of Pala, San Diego county, offers for sale a share in his valuable place, consisting of 320 acres, and situated as described above. There is an Apiary on the ranch in successful operation. For this business it possesses marked advantages. Twenty acres are seeded to alfalfa and eight acres are in vines. The place has growing on it 420 trees, many of them in bearing.

The owner will warrant the Cavendish Dwarf Banana to grow as well here as in Florida. He has three now growing. The pasture now enclosed will keep 50 head of cattle. The ditch—which is large enough to run a mill—is stocked with trout, and has a fish pond 100 feet square, and full of fish. There is a nice warm spring, with bath house; the water contains sulphur, salts and iron.

The place possesses great natural advantages, and the present owner has not spared money nor labor to improve; but being a valetudinarian he is not strong enough to attend to the work. To the right kind of a man a rare opportunity is here offered. To such a person as will come in good faith he extends the invitation to stop on the ranch long enough to become familiar with its characteristics and capacities.

Parties can refer to I. Nast, stock broker, San Francisco, or to anybody of note in San Diego. The place bears the name of "Aqua Tibia." Address,

LEE H. UTT,
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IN LOTS TO SUIT,

5,000 Acres of the Lake Vineyard Land and Water Association.

These lands are in the great fruit belt of Los Angeles County,—only six miles from the city—are peculiarly adapted to semi-tropical fruits, and adjoin the famous Lake Vineyard of Hon. B. D. Wilson. The Southern Pacific railroad runs through the land; convenient to schoolhouse and church; water in abundance, and the water-right is sold with the land. Title perfect. A Map of the tract may be seen at the office of Mayor Beandry, on Spring street, opposite City Council rooms. References may be made to HON. B. D. WILSON or J. DE BARTH SHORB, at Lake Vineyard, who will take pleasure in showing the lands. Also, to MAYOR BEAUDRY or D. FREEMAN, Los Angeles city.

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FOR SALE—My POULTRY BUSINESS, with my Farm of 115 acres; 22 acres of Vineyard and Orchard; House of 10 rooms; Barns; Granaries; 30 Chicken houses.

Receipts between $3,000 and $4,000 a Year,

Fully proved to the purchaser. Farm Implements, Wagon, Horses, Cows, etc., with Poultry (value over $3,000) included. Price, $12,000, one-half cash. Or I WILL SELL A HALF INTEREST and continue the business in partnership—the purchaser to reside on the place. Address,



M. EYRE, Napa, Cal.

In view of above I offer a few fine Fowls, Bronze Turkeys, etc. (not included in breeding pens and stock sold with farm), at reduced prices.

Fine Dairy Farm for Sale.

An undivided half interest in a fine Dairy Farm of 640 acres patented land, all inclosed. One hundred acres is good agricultural land, on which fine crops of timothy hay, potatoes, apples, etc., are raised. Balance affords fine grazing for 100 head of cattle and is also handsomely timbered. Plenty of fine running water at all seasons, and a valuable mill site and privilege are on the land. A good cash home market for all the produce of the place. Improvements, a comfortable house, three large barns, farming implements, wagons, etc. Also 40 head of good milch cows, 60 head of young cattle, horses, etc. There is also a large outside range of from 2,000 to 3,000 acres held under possessory title. Will be sold at a bargain. For particulars apply to

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Is the Only Machine that can Knit all sizes of work, and narrow and widen it; that can shape and complete, without hand-finishing,

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GRAPE BOXES, RAISIN BOXES, FIG DRUMS, ONE-POUND BLACKBERRY BOXES and PICKING BASKETS.

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DECLARED BY CONNOISSEURS TO BE

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In consequence of Spurious Imitations of

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which will be placed on every bottle of

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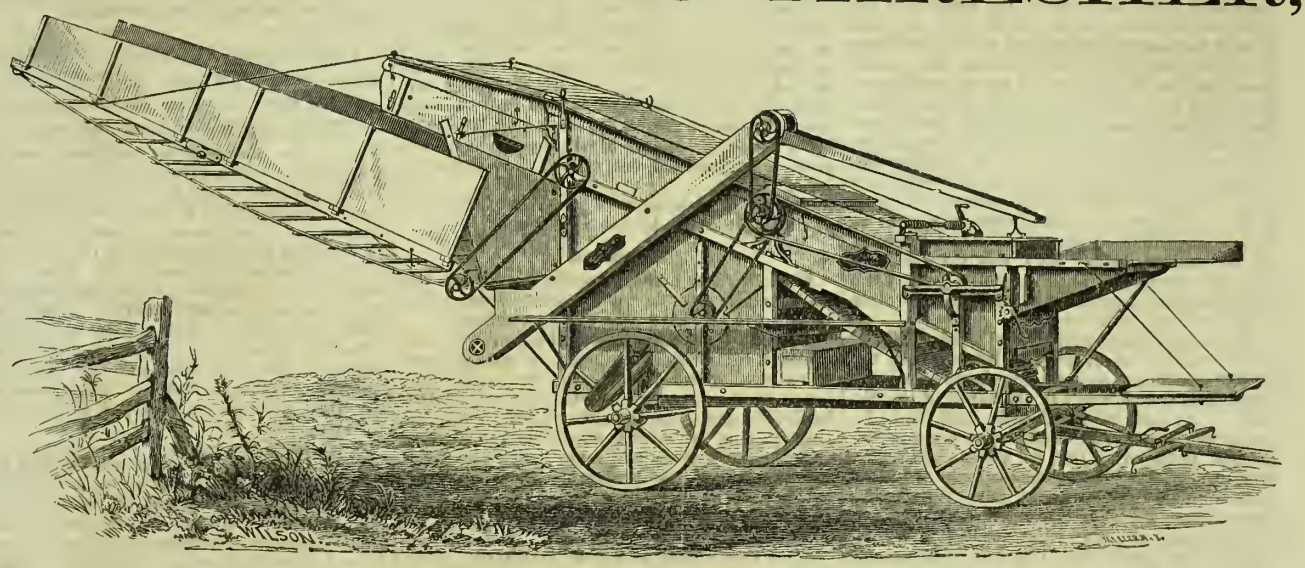
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50 **Visiting Cards,** with your name finely printed, sent for 25c. We have **100** styles. **Agents Wanted.** **9** samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

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With all the Latest Improvements for the Pacific Coast, Manufactured for

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We will warrant every Machine sold to do Better, Cleaner and Faster Work than any other Thresher on the Coast.

All who are in want of Threshers should not fail to call and see the improvements that have been put on the Sweepstakes for the Harvest 1 We also have the Cary Power, to which we would call special attention.

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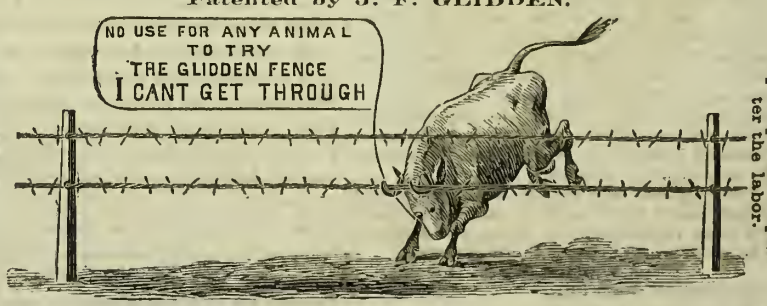
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The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8. Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞ Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

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Gov. Irwin and West Side Irrigation.

We have noted the fact that the irrigation commissioners finding no provision in the West Side irrigation act appropriating money to bear the expense of the preliminary surveys, etc., had appealed to the people to subscribe. The commissioners, it will be remembered, promised to reimburse all subscribers from the appropriation which they expected a subsequent legislature would make. They appealed to the Governor to know what would be his action in reference to a subsequent legislative appropriation, and he has written as follows:

J. R. McDonald, Esq., President of Board West Side Irrigation Commissioners—Sir: Your favor of the 8th inst., in which you state the plan your board has adopted for raising the necessary funds to enable you to perform the duties imposed on you by the act creating the commission, and ask my views in relation thereto, is before me.

It is well known by Mr. Scrivner, the author of both the original and supplemental West Side irrigation bills, that I was anxious that there should be embraced in the supplemental bill a clause appropriating a sufficient sum from the State treasury to enable the commissioners provided for in the bill to make the surveys and perform the other acts required of them; such sum to be returned to the State from the proceeds of the bonds of the district, if bonds should be issued in pursuance of the provisions of the original West Side irrigation bill. I suggested to him that he should put a provision of that kind in the bill. He replied that at that stage of the session—it being the last day of the session, when a single objection would prevent the introduction of a bill—it would be impossible to pass the bill, if it should contain a clause appropriating money from the State treasury. He further stated that the parties interested would devise some method for raising the necessary means. As I was very desirous that the supplemental bill should pass, I did not press the suggestion of an appropriation from the State treasury.

You inform me that the board has determined to effect loans from parties interested in the irrigation scheme, under a promise to reimburse them from the proceeds of the bonds of the district, if the vote of the district shall be in favor of the issuance of bonds; or to use your influence, in the event that the people of the district shall decide against the issuance of bonds, with the next legislature to have them reimbursed from the State treasury.

You desire to know what position I will occupy in the event that this last contingency shall arise. Will I advise the next legislature to make an appropriation to pay the liabilities which you must contract in discharging the trust imposed on you by law? In other words, will I use my influence with the legislature to have the parties who may loan you money paid from the State treasury, if the people of the district shall decide not to issue bonds to go on with irrigation?

To this question you wish, I presume, a plain, direct, categorical answer. It gives me pleasure to be able to say, I feel no hesitation in returning such an answer.

Whatever sums of money may be necessary to enable the commissioners to discharge faithfully all the duties, and perform fully all the acts required of them by law, I advise them to borrow, if they can. All sums so borrowed should be reimbursed from the proceeds of the bonds of the irrigation district, if, in pursuance of law, bonds of the district be issued. If, however, on the submission of the question, the people of the district shall decide against the issuance of bonds, I will recommend to the next legislature the appropriation of a sufficient sum from the State treasury to pay the loans which the commissioners shall have found it necessary to make to enable them to perform the acts required of them.

Trusting that this answer will be regarded as sufficiently broad and explicit, and that it will serve the purpose for which you desire it, I have the honor to be, with great respect,

WILLIAM IRWIN, Governor.

Sacramento, June 12th.

A Side Hill Mower.

In many parts of the State our readers have their fields more or less "set up on edge," as some one has described side hill land. There has always been trouble to secure either a plow or a mower which would do first-class work on the side of a hill. We notice that a farmer in Santa Cruz county has introduced a mower, which, for side hill work, seems to satisfy him. From a letter written to the Santa Cruz *Sentinel* we extract a few points concerning the machine, which are of value for general information. It is a direct draft mower, made by the Towanda mower manufacturing company, Towanda, Bradford county, Pa. The letter writer mentioned above, says: "While it is for level and valley lands almost a perfection, it is also peculiarly suited to side hill farms, working on any kind of land, however steep or rough, as no other mower in the market will work, and has the following points of superiority over all other mowers in this market, so far as I have seen or known them: It is reversible, and this fact gives a choice of the side to mow on, working the machine back and forth on the side hills, cutting back and forth across the lodged grass, cutting across the deep furrows instead of mowing with them, always cutting long swaths—all features of great advantage in practical work. Mr. Pilkington, of Santa Cruz county, writes of the machine: I have tested it on my farm by cutting about 30 acres of very rough, badly washed and very steep side hill land, sowed with barley for hay, and cut it with greater ease to my two light horses, and in much less time than any four-feet mower in the market, cutting, as it does, a six-feet swath.

Wheat Field Fires.

EDITORS PRESS:—On Thursday evening, 29th June, about two miles north of Woodland, a grain field was fired from the threshing engine, and made it a severe battle to save the machinery and stop a wide-spread conflagration.

On Friday, 30th, a header in the field of Mr. Brown, one mile west of town, seemed to be the cause of igniting a flame which sprang up in its rear. The men at hand rushed to extinguish the flames, but the horses becoming frightened, they were obliged to secure them and rescue the wagon and header from the spreading flames, which in stubble three feet high made fearful strides.

Stacks of grain were soon on fire. The few men immediately at hand made great exertions to check it, but before sufficient aid—water to wet sacks and men to use them—could be summoned, all of Mr. Brown's grain, and also Mr. Gallup's, were destroyed. And only a very favorable wind enabled the saving of Mr. Gallup's house and barn. Mr. Douglass had his grain mostly sacked, and it was but little injured.

The ground burned over was about 320 acres, or half a mile wide by one mile long.

Suggestions.

First. Twenty or 30 old sacks lying near the engine always wet or moist, would be ready for instant use and save time and cost nothing.

Second. On the first alarm of a field fire, any common tub or barrel that can be placed into an express or lumber wagon, and sacks and water filled in, can be started direct for the battlefield and is ready for use when there, and 10 or 15 men can start a countermarch fire, in very heavy stubble and soon check the fire's progress in any one direction. New sacks do not moisten in an instant, owing to the gloss sizing on them. Gunny bags are the best because heavier and more lasting.

Some stacks were on fire at Davisville, Sunday evening. Supposed to be from a railroad engine. Let every farmer have old sacks ready against fire. C.

Woodland, July 3d, 1876.

Herb Growing.

Is there anything being done at present among our readers in the way of growing herbs for market? When we go to the druggist to buy the consoling catnip or the wryful wormwood, we are given little packages of compressed herbs bearing the brand of the solemn Shakers of New York. This industrious class of people have coined fortunes by their herb growing, and their brand is known everywhere. There is no reason why we should import the useful herbs from New York; on the other hand there seems every reason why we should build up a profitable trade in this line of production. We commend the matter to the study of some wide awake man who has a little piece of ground which he desires to occupy all his time and pay him good wages on a small investment. This subject is not altogether new. We know of an intelligent man in Alameda county who went so far in the business as to secure seeds and plants and get them well a-growing, but through his attention being demanded by other matters, was forced to allow his herb plantation to go to waste. He is, however, just as strong in the belief that a good paying business can be developed in this line as he was when he began.

In the line of growing some special costly plant for the druggist there is also opportunity for profitable work. Our attention is called to this subject by a letter from a Virginia correspondent of the *Country Gentleman*. From the following it appears that the herb "ginseng" has been in the mind of a California farmer, and perhaps the hints may reach him or some one else for his good. The writer says: "Some five or six years ago my attention was called to the value of ginseng as an article of commerce, through a correspondent of the *Country Gentleman*, then residing in California (I regret very much that I have since lost his address). In his letter he asked particularly as to the nature of the plant, the soil upon which it was grown, the time required for it to come to maturity, etc., and if I thought it could not be acclimated, or, I should say, cultivated in open ground, exposed to the rays of the sun. After a great many inquiries upon the subject from persons who were engaged in the gathering of the ginseng in the mountains, I was informed that it was never found anywhere except in the woods, and general doubts seemed to be expressed as to the possibility of getting the plant to grow except in the damp, shaded gorges of the mountains: However, I procured some seed and attempted to grow them. The effort was a failure, until I accidentally discovered how the seed could be propagated, and I assure you I watched with no little interest the only plant I obtained the first season. The plant yielded a good crop of seed the second year, which was planted and came up in due time, and I think from present appearances I will claim the honor of acclimating the ginseng. If the plants of last season yield as they now promise, I think the growing of ginseng will be as easily accomplished as growing a crop of potatoes. The only difficulty I now see is this—it requires two seasons for the plant in its wild state to become large enough for market—or I should say at that age it has arrived at a state in which it is considered more saleable in market. What I want to know is this—what fertilizer I could use that would force the growth of the plant. Possibly some gentleman who has an analysis of ginseng at hand, could aid me or make some suggestion as to the proper manure. The present price of ginseng has caused the gathering of a larger amount than usual the past season. Although the State has passed very stringent laws to protect the plants growing in the mountains, it is but a question of a few years, when ginseng will become extinct, and any means by which the demand for this article can be supplied will certainly be a source of great revenue."

THE HULBURD ESTABLISHMENT AT PLACERVILLE.—It appears from the Placerville *Democrat* that there is exceeding life and action in the Hulburd drying and canning works in that place. Two large brick buildings are used. Preparations are active for putting up the new Hulburd drier. The *Democrat* says: The Hulburds are preparing a brickyard in the neighborhood of their factory, where they propose to burn the brick to be used in the construction of their furnace, chimney and drier. These brick will be molded and burned of a curvilinear shape, especially adapted to the circular walls into which they are to be laid, thus effecting a great saving compared with the expense of trimming bricks of the usual shape. A full description of the new drier patented by Mr. Hulburd through Dewey & Co.'s agency is promised soon.

NEW BREEDS.—Two new and distinct breeds of sheep have lately been introduced into England from the west coast of South America. The first are two fine, white wooled sheep, each having four massive horns, two of which have a forward curve over the head, while the other two curve downward under the eyes, giving the head a singular appearance. Of the second, which are said to be a species between the llama and alpaca, there are three, one male and two females, which are thickly covered with long, dark brown, but exceedingly fine hair or wool, which is highly prized by the native Indians for the manufacture of their more delicate fabrics. The male stands about three feet high at the shoulder.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

FOR WEEK ENDING JUNE 27TH, 1876.

WATCH-CASE SPRINGS.—Charles O. Farcoit, S. F.

FURNACES FOR STEAM BOILERS.—John L. Heald, Vallejo, Cal.

LUBRICATORS.—Nicholas Seibert, S. F.

AXLE SETS AND GAGES.—William C. Carlton, Boise City, Idaho.

PROPELLING CANAL BOATS.—Honston I. Chapman, Portland, Oregon.

BUCKET EARS.—Joseph F. Donkin, Grayson, Cal.

FRUIT DRIERS.—Hiland G. Hulburd, Placerville, Cal.

MARKING IMPLEMENTS.—Joseph Perkins, S. F.

BAG FASTENINGS.—Antone Rihn, Conlterville, Cal.

LINIMENTS FOR RHEUMATISM.—Clinton Skane and James Kearney, S. F.

ARTESIAN WELL BORER.—John A. Woodhouse, Anaheim, Cal.

DESIGNS.

PHOTOGRAPHIC MOUNT.—Isaiah W. Taber and Thomas H. Boyd, S. F.

TRADE-MARKS.

FLOUR.—Savier & Co., Portland, Oregon.

——The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

GOOD PRINTING INK.—We prefer Chas. Enen Johnson's printing inks, having used them on this paper for the past four years. H. S. Crocker & Co., printers, stationers, blank book and paper dealers, are Johnson's S. F. agents.—DEWEY & CO., Publishers.

A Standard Employment Agency in San Francisco.

The agency to which we would now call the attention of the readers of the CALIFORNIA PATRON, was established twenty years ago, and is the oldest establishment of the kind on the Pacific coast. From a small beginning in 1855, it has grown to such dimensions that it has been compelled repeatedly to move into more commodious quarters, and now it occupies the large double store formerly occupied by M. Gray & Co., No. 625 Clay Street, next door west of the banking house of the San Francisco Savings and Loan Society, one of the most central business locations in the city. MESSRS. CROSETT & CO. are daily supplying orders sent from all parts of the State, containing requests for every variety of labor, for the farm, the field, orchard, vineyard, tending stock, or cultivating the soil; for all kinds of lumber, milling and mining work, from superintendent down to simple laborer; for the shop, mechanics, engineers, artisans, and skilled workmen of every kind. Nor do their orders contain requests for male help alone. Great pains is taken to supply our housewives with the very best Domestics, Cooks and General Housemaids that can be obtained. They would call the especial attention of GRANGERS AND FARMERS GENERALLY to their facilities for supplying farm help. Referring confidently to their past record for faithful attention to the wants of patrons, they have no hesitation in assuring all applicants who may favor them with their orders, that they can nowhere else be better or more promptly served than by applying to this old established agency. Mr. Crosett gives his constant personal attention to his business. His long experience makes him quick to see and accurate in judging of the merits of those who apply to him for situations. And his well established and wide extended reputation brings to his office an abundant supply of every kind of labor, from which he is enabled to select the best.

All this advantage Mr. Crosett gives to those who favor him with their orders, and that, too, without any expense to the employer—all the fees, (which, by reason of a large business being transacted, are moderate), being paid by the employee. The Employment Agency of Messrs. Crosett & Co. is supplying a great need in our State and we take pleasure in commending it to all readers of the PRESS.

THE MINING AND SCIENTIFIC PRESS PATENT AGENCY was established in 1860—the first west of the Rocky Mountains. It has kept step with the rapid march of mechanical improvements. The records in its archives, its constantly increasing library, the accumulation of information of special importance to our home inventors, and the experience of its proprietors in an extensive and long continued personal practice in patent business, affords them combined advantages greater than any other agents can possibly offer to Pacific Coast inventors. Circulars of advice, free.

Address,

DEWEY & CO.,

Publishers MINING AND SCIENTIFIC PRESS and PACIFIC RURAL PRESS, San Francisco.

AN ESTATE IN SAN DIEGO COUNTY.—Readers have doubtless noticed the advertisement of Lee H. Utt, of San Diego county, in which he offers for sale a share in the estate called "Aqua Tibia" in Paia, San Diego county. Mr. Utt, as we are informed, has brought his property into a fine state of development, and finds that its management requires the time of two men. He cannot secure hired help to take an interest in the work and stay permanently as he desires, and so he asks for a man to take half ownership and assume the active control of the property. It is an opportunity which we consider worth looking into.—*Rural Press, June 10th.*

FARMERS, send to May Bros., Galesburg, Ill., for descriptive circular of their new improved, heavy, steel-vane Windmill, and of their "Combined Mill." Warranted first-class mills. Wholesale price of nine-foot wheel, $30 on cars. One month trial given. Any carpenter (with the printed directions) can put the mill up right in one day. Farmer agents wanted.

At our request, Cragin & Co., of Philadelphia, Pa., have promised to send any of our readers gratis, (on receipt of 15 cents to pay postage,) a sample of Dobbins' Electric Soap, to try. Send at once.

SUTTER CREEK, February 26th, 1875.

MESSRS. DEWEY & CO.—I have received my Letters Patent through your Agency. nd, for your promptness, accept my thanks. Yours, S. N. KNIGHT.

MENZO SPRING,

Manufacturer of

Dr. Bly's Patent Artificial Limbs.

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sowbp

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, July 5th, 1876.

The almoet universal cessation from business this week, in accordance with the proclamation of the Governor, recommending the observance of three holidays' renders our market nominal. In the absence of transactions we have no commente to make upon the different prodnc'ts. We take occasion to lay before our readers Mr. Friedlander's annual grain circular. We print it, as is our custom, for whatever information our readers can find in it, without assnming any reeponsihillty for the statements it contains.

Friedlander's Grain Circular.

In reviewing the businese of the past year, which, in California as in the other markets of the world, has beeu a moet unsatisfactory one, the reflection can hardly escape us how little really profitable business has been done for several years paet. From 1870 to 1874 the Enropean crops were poor, and pricee high. Home grown Wheat in England ranged from 62e 6d to 60s in 1871, 53s 9d to 60s 3d in 1872, and from 54s 6d to 64e 6d in 1873; and yet, through it all, there never wae a good profitsble business done. The crop of 1874 wae a very large one all over the world, bnt the fall in valuee wse so much more rapid than any one imagined possible, thst the trade again suffered severely by contracting ahead, the market declining from 64s in June to 43s 6d in October. While the English and Continental operators thns had to staud heavy losses, the Americsns on both sides of the continent were deprived of all profit. The crop of 1875 wae in no part of the world a very promising one, even when at its heet; for Rueeia and the United States were positively short, France had been seriously damaged hy floods, while Germany, Hungary and Turkey ehowed nothing sbove a poor average. The English crop looked pretty well through the epring, hut her acreage wae less than that of the previous year, and there was nothing in the sppearance of the plant to justify any expectatione of more thsn an ordioary yield. Still, there was no cause for alarm; and with homo grown Wheat ranging in Englaud from 44s in January to 40s in May, it is not surprising thst the Liverpool corn fsctora msintained a position of positive apathy. In July, however, just ae the Wheat crop was blooming, a spell of extraordinary rains set in, which fairly flooded the country, and worked an immediate change in prices. Wheat rose from 43e to 54s per quarter in a fortnight, and had the flood continued, it ie not improbable that 75s to 80s might have been reachcd; for another fortnight of storm would have utterly ruined the Englieh crop, and France and Germany under eimilsr influences were suffering terribly. The effect on the markets of the producing countries was instantaneous, aod when the storm cleared, and a calculation of actual injury wae possible, a flood of grain hsd been started towards the English cosst from all parts of the world, which has hardly spent its force even now. The damage to the crop proved to have been overestimated, hut the effect on the trade wae ruinous. No one had any conception of the amount of Wheat of 1874 remaining in stock throughout the world, and when the surplus of wheat began to pour into England, no one supposed it could last. But when, in November, New York had not finished shipping old Wheat, and the untouched crop of 1875 was on the eeaboard, cautioue people began to ehake their heads, and to look for a range of prices much lower than had been deemed possihle a few weeks before. The miechief, however, had then heen done, for the Wheat operators were all losded up, and lrom that time forward nothing met them but dieaster and loee. One by one they lost their hold, and, while all were seriouely crip pled, many had to suspend. Wheat in Liverpool went back to 42e, and for weeks eeemed likely to touch etill lower figures. Fortunately, early in May, the Continent began to call for Wheat, and the downward movement was checked; but the Englieh seaport towns are still crowded with wheat, and the relief which has been prayed for so long depends on the weather, and may never take place; and if it does not before the new supplies hegin to come in, we can expect nothing but low prices during the coming year. Still, it must not be overlooked that the Continent is bare of stocke, and thst the supply of Wheat throughout the whole world has heen wonderfully reduced, and should a spell of unfavorable weather set in and last for any time the effect would probably be almost magical. The market has been supported during the lset two months entirely by the Continental demand; and the Continental operatore suffered laet eesson very little in comparison with those of Great Britain. They, consequently, have hoth the meane and the disposition to stock up heavily; and it cannot he overlooked thst, although within the past few weeke the weather hae been more propitioue, the general character of the season has beeu backward, if not actusily poor. The Continental demand at preeent ie light, and pricee are settling down again to a low plane; but a fortoight of bad weather would change all thie, and, although we look upon an Europeen war as improbable, still it is a factor in the sum which ought not to be overlo ked. As it now etands, the eitnation appeare to he this: The Englieh warehousee are full of Wneat; hut, once established that future shipmente were to go to the Continent, consumption would overtake stocks in six weeks. The Conlinent is bare of old stock, and the coming crop doee not promise to be even an ordinarily good one. The United States is going to have a great deal of Wheat for export, but her own granaries have been much depleted, and it will take somo time for the new crop to reach the seaboard in large supply. The other Wheat producing sections of the world have fair crops, but not sufficiently large to affect the markets of Europe materially, unless it be that India, with her enormous productive power, is going to step in. But without pretending to prophesy, we can confidently say that the proepect for anything more than fair prices during the coming year is hardly encouraging.

California shared in common with others the excitements and the losses of the seaeon. Opening at $1.60 @1.65 per 100 pounde, in May, for forward delivery, our harvest was only commencing wheu, under the influence of 55s, 56s and 57s limits from Liverpool, Wheat rose to $2.37½. As throughout the spring, limits had been most slack at 45s, the excitement was naturally very great, and, as in former yeara, we had more than once worked off our crop on ordere ranging as high as 65s, it is no wonder that most of our producers and many of our factors looked for much higher rates than had ruled for many years paet. Everything served to favor the delusion. The first estimates of our crop gave us from 5,600,000 to 6,400,000 centals of wheat surplue. In addition we had carried over from the previous year's crop a very considerablo stock of old wheat. But as the threshers got to work they reported a lighter and lighter yield, until some began to douht if we could spare anything over 4,000,000 centals. The farmers took the alarm, and the more they were offered for their crops the more dieinclined they were to sell. Speculators began to range over the country offering prices that were based on nothing but their own wild imaginations; and even many, legitimately in the trade, losing eight of the present, began to speculate on a futnre market, and loaded up at rates which foreign quotations, even when at the highest, in no way justified. Of course there could be only one result to all thfs; and when the break occurred in Liverpool the losees here were very great, particularly as they were coupled with an extremely stringent money market, resulting from the hank failures, and a steadily growing conviction that our crop really exceeded considerably the highest eetimates made in the beginning of the season. Still the country has gone through it, and, on the whole, has not suffered as much as wse at one time feared; and with the experience gained from the past, and the bountiful harvest now heing reaped, we may hope that, hy the end of the year, the traces of dissster will all have disappeared.

Wheat—Our crop has become so important a factor in the problem of the world's eupply of wheat, that the history of our market during the paet 12 monthe ie pretty well embodied in the resume we have given of the course of businese in Europe and the Atlantic States. Still, as a matter of record, it may be well to note that ft ruled as followe during the year (quotations are per 100 lbs. alongside ship, in U. S. gold coin): July, $1.65 @$2.05; Angust, $2.20@$2 37½; September, $2 20@$2.10; October, $2.10@$2.05; November, $2.05@$1.97½; December, $2.00@$2 05; January, $1.95@$2 00; February, $1.95 @$2.00; March, $1 92½@$1 97½; April, $1.95@$1.85; May, $1.85@$1.75; June, $1.75@$1.80, the old crop having become about exhausted by the middle of the last r amed month, and new operatione commencing on a hasis of $1.60@$1.65 for new wheat delivered in June snd July. The business of the year, as may well be imsgined, as been unsatisfactory, and hoth farmers and operatore have met with some eerious disappointmeuts. The ultimate resulte, however, will undoubtedly he heneficial, inasmuch as the tendency towards speculation has received a very severe check. Our market, for yesre, differed from those of the grest West, and indeed of New York, in the fact thst our merchants and factors confined tbemselves to the execution of legitimate orders. It is perhaps fortunate that, when they left thie well trodden field, and took to speculating on their own account, instead of meeting with a success, which in the nature of things could only be transient, and which would lesd infallihly to disaster in the long run, they encountered a rebuff. Shipments on California account will probably be little heard of henceforth for eome yesrs to come.

We are entering now on a new season with etocks reduced to a minimum and the promise of a moet abundant harv-st. There can be no question that the latter will he the largest ever reaped in the State, while the quality gives every promise of heing very superior. What our surplus will he, ie, of couree, at the present moment, largely a matter of conj cture, particularly as our harveet is somewhat late; but it will disappoint the conjectures of many if it doee not amount to 750,000 tons of 2,000 lbe. each. Our area under grain is extremely lsrge, and the experience of the psst year indicates the necessity for caution in figuring on a crop either exceptionally small or large. What prices will be realized, of courne no one can tell. but our farmers sre disposed to meet the market, and we rather l ook for a sstiefactory busineee. The crop in Oregon does not promiee quite so well as last year, the winter having been unpropitious, and the plant of wheat circumscribed by a protracted wet sesson. At one time fesrs were entertained that it might not turn out over 60 per cent. of that last year; but the spring, we sre happy to say, has been genial, and the result of the harvest will probably show no serious diminution from that of 1875-6.

Barley—The Barley crop of 1875-6 was a large one, and of good quality. The moving of it, however, wae impeded by the tenacity with which the farmers held on to their stocks when really profitable figures were offering, by whica the trade with the Missiseippi valley was much curtailed. The mistake was, perhaps, not uonaturs!, for the sudden and rapid riee in wheat naturally reacted on other grains, and in addition the Oat crop was a poor one and maintained a high scale of pricee all through the season. It was, however, not the lees unfortunate, for had farmers met the market freely our whole surplus might have been disposed of, whereas the cloee of the seeson saw us with a large stock remaining on hand. The market opened in June, July, at $1.40 per 100 pounds, but rose to $1.70@1.75 before September. Through the fall snd winter, rates slowly declined to about $1.20. and by January were down to $1.10. The spring witnessed a rally to $1.20 @1.25, hut with a very restricted buelness; and when April and May were reached the best prices obtainable for even jobbing lote were $1@1.05. The new crop is now coming in rapidly, and is probahly the largest and best ever harveeted in the State, but the market opens very low, aud it looke as though it would continue so to the end. The discount on silver is a very disturbing element in the trade, as by far the lsrgest portion of the crop ie sold in the State, and the jobhers are in moet cases compelled to take payment, at leaet partially, in depreciated coin. Thie deranges quotatione very much, but as we write, bright new Barley cannot be quoted in gold over 90c per 100 pounde. The crop of Chevalier Barley this year will be much smaller than the last, se for eome reason the farmere have reduced the plant materially. This is much to he regretted, ae our Chevalier Barley was well liked in Australia, and was beginning to be appreciated in England. Some heavy shipments of this description were made last winter to New York by sailing vessels, but the prices realized were not remunerative, and it is not probable that the experiment will be renewed on any considerable scale. Still, in the absence of a market here, a considerable quantity of our ordinsry brewing qualities may find its way there, and indeed, one lot of a thousand tons has already been diepatched. With a continuance of present low prices, we hope for an outlet for a considerable portion of our eurplus to Chicago snd St. Louis.

Oats—The Oat crop was a poor one last season, both in California and Oregon, but as oor entire exporte amount to very little, the.e is no necessity for giving the market any extended review. Prices opened early in August at aoont $1.75 per 100 pounds, but hy the end of October had dropped to $1.50, by which time, or a little later, the stocks were concentrated in a few hands, and prices were put up to $2@2.50, reaching in the end $2.75 per 100 pounds. A lsrge portion of our supplies come from Oregon, and this spring some parcels reached us by rail from Utah and Nehraska. The coming crop promises well, and that of Oregon will be unusually large, and with low pricee ruling for other Feed graine and the chsnce of low freighte to the Colooies, our Australian friends may see their way to sending us some orders.

Flour—During the year we dispatched eight complete cargoes of Flour to Great Britaio, comprising 126,000 bsrrels, aod 18 parts of cargoes, aggregating 70,000 harrels. Thie business has not afforded any margin of profits, but it will probably be continued on about the same scsle in the coming 12 months, as there are parties regularly in the trade, who will, by continuing it, be ready to seize any advantage the changes of the markct may afford. Our trade with China has been atimulated by extremely low freights, and the Chinamen, during the spring, have been largo exportere. Outeide of these tho market has presented no features of especial interest. Our millers have done a steady, but hardly a profitable trade, as they ali suffered by the rapid and heavy decline in Wheat at a time when they were heavily stocked; but the prohabilities are, that with a year of low and uniform prices for Wheat, they will more than recover the lost ground during the coming 12 months. Superfines opened in July at $4.50 per harrel in cloth, and Bakers' Extra at $5.00; by the middle of August they had risen to $5.50 and $6.50 respectively. From these figures the markot slowly declined, ruling in December about $5@6 per barrel, and hy February we again reached the prices at which the market opened in Jnly. As we write Superfines (city brands) in quarter and half sacks sre quotable at $4.25 per barrel; Extraa, at $4.50; and Bakers, at $4.75. The imports from Oregon this season havo been free, and have interfered considerahly with the business of our city mills, hut with a smaller Wheat crop in that State and au enlarged direct trade there with Great Britain, we will probably feel the competition much less during the coming year.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., July 5, 1876.

BEANS.

Bayo, ₱ ctl	4 50	@	5 00
Butter	1 90	@	2 25
Pea	1 92½	@	—
Pink	2 50	@	3 00
Sm'l white	1 60	@	1 90
Lima	1 90	@	2 00

BROOM CORN.

Common, ₱ lb	2	@	3
Choice, do	4	@	5

COTTON.

Cotton, ₱ lb	15	@	18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	22½	@	27½
Point Reyes	—	@	30
Firkin	22	@	26
W'st'n Reserve	16	@	20
New York	—	@	—

CHEESE.

Cheese, Cal., lb	10	@	15
do Old	—	@	—
Eastern	—	@	—

EGGS.

Cal. fresh ₱ doz	29	@	30
Ducks'	—	@	25
Oregon	22½	@	25
Eastern	21	@	—

FEED.

Bran, per ton	—	@	19 00
Corn Meal	27 50	@	28 00
Hay	8 00	@	13 00
Middlings	24 00	@	—
Oil cake meal	—	@	37 50
Straw, ₱ bale	50	@	60

FLOUR.

Extra ₱ bbl	5 50	@	5 75
Superfine	4 50	@	4 75
Grsham, ₱ bbl	5 50	@	—

FRESH MEAT.

Beef 1st quality lb.	5½	@	6
Second do	3½	@	4
Third do	2½	@	3
Spring Lamb	4½	@	5
Mutton	2½	@	3
Pork, undressed	6½	@	6¾
do, dressed	9½	@	9¾
Veal	5	@	5½
Milk Calves	6	@	7

GRAIN, ETC.

Barley, feed ctl	1 00	@	1 05
do new	80	@	92½
do brewing	1 05	@	1 15
Chevalier	1 25	@	1 35
Corn, White	1 15	@	1 20
do Yellow	1 15	@	1 17½
Oats	1 90	@	2 25
Milling	—	@	2 30
Rye	1 80	@	2 00
Wheat shipping	1 50	@	1 60
do milling	1 60	@	1 70

HIDES.

Hides, dry	10	@	13
do wet salted	6	@	6½

HONEY, ETC.

Beeswax, per lb	25	@	27½
Honey in comb	12½	@	15
do Strained	8	@	10

HOPS.

New crop	10	@	13

NUTS—Jobbing.

Alm'ds n'rd sh'l lb	8	@	10
do, soft sh'l	18	@	20
Brazil do	14	@	16
Cal. Walnuts	12	@	14
Chile Walnuts	11	@	12½
Peanuts per lb	9	@	10
Filberts	15	@	16
Pecanuts	17	@	18

ONIONS.

Union City ctl	—	@	—
Stockton	—	@	—
New Red	75	@	1 00
Silver Skins	1 00	@	1 12½

POTATOES.

Petaluma, ₱ ctl	—	@	—
Salt Lake	—	@	—
Humboldt	—	@	—
Early Rose, new	1 00	@	1 12½
Sweet	—	@	—
New	90	@	1 12½

POULTRY & GAME.

Hens, per dz	8 00	@	9 00
Roosters	7 50	@	9 00
Broilers	3 50	@	5 00
Ducks, tame, dz	5 00	@	7 00
do Mallard	—	@	5 00
do Canvass	—	@	5 00
Geese, per pair	1 75	@	2 25
Wild Gray dz	3 00	@	4 00
White	1 50	@	2 00
Turkeys, Live, ₱ lb	15	@	20
do Dressed	22	@	24
Quail, per doz	—	@	—
Snipe, Eng., doz	2 00	@	2 50
Doves, per dozen	50	@	87
Rabbits	1 00	@	1 00
Hare, per doz	1 50	@	2 10

PROVISIONS.

Cal. Bacon, L't, ₱ lb	15½	@	16
do Medium	14½	@	15
do Heavy	—	@	15
Lard	14	@	16½
Cal. Smoked Beef	9	@	10
Eastern do	—	@	10
East'n Should's	—	@	10
Hams, Cal	14	@	14½
do Armour	14½	@	15
do Worster's	16½	@	17
do Dupee's	16	@	16½
do Davis Bros'	16½	@	17

SEEDS.

Alfalfa, Chile lb	8	@	10
do California	12	@	13
Canary	18	@	20
Clover Red	—	@	22
do White	50	@	55
Cotton	6	@	10
Flaxseed	—	@	3¼
Hemp	12½	@	—
Italian Rye Grass	25	@	30
Perennial do	20	@	30
Millet	10	@	12
Mustard, white	3	@	3½
do, Brown	3	@	3½
Rape	7	@	9
Ky. Blue Grass	30	@	—
do 2d quality	29	@	—
Sweet V Grass	—	@	75
Orchard do	30	@	35
Red Top do	—	@	25
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	20	@	25
Timothy	11	@	13

TALLOW.

Crude, ₱ lb	6½	@	7
Refined	8½	@	9

WOOL, ETC.

SPRING—

Seedy, ₱ lb	9	@	12½
Choice long free	17	@	18
do Northern	19	@	21
do short	13	@	16½
Burry	10	@	14
Oregon	—	@	—

S. F. RETAIL MARKET RATES.

WEDNESDAY M., July 5, 1876.

POULTRY, GAME.

Chickens	50	@	1 00
Eggs, Hens	35	@	—
do Ducks'	—	@	30
Turkeys, ₱ lb	25	@	—
Ducks, each	1 00	@	—
Geese, wild, pair	—	@	—
Tame, ₱ pair	2 50	@	3 00
Snipe, ₱ doz	—	@	—
do English	—	@	3 00
Quail, per dozen	—	@	—
Prairie Ch'k s, ₱	—	@	—
Harss, each	25	@	35
Rabbits, pair	37	@	50
Squirrels each	10	@	15
Hams, Cal. ₱ lb	16	@	20

FISH, MEATS, ETC.

Flounder, ₱ lb	20	@	25
Salmon, ₱ lb	—	@	5
Smoked	—	@	10
Cod Fish, lb	12	@	15
Lake Big Trout	—	@	35
Beef, tend, ₱ lb	20	@	25
Corned, ₱ lb	8	@	10
Smoked, ₱ lb	—	@	15
Porter House St'k	20	@	25
Sirloin do	15	@	18
Round do	10	@	12
Pork, rib, stc., lb	12½	@	15
Chops, do, ₱ lb	15	@	20
Veal, ₱ lb	12½	@	15
Outlet, do	15	@	20
Mutton-chops, lb	6	@	9
LegMutton, ₱ lb	10	@	15
Lamb, ₱ lb	12	@	15
Antelope	—	@	—
Tongues, beef	75	@	1 00
do, do, smoked	75	@	1 00
Tongues, pig, lb	12½	@	—
Bacon, Cal., ₱ lb	16	@	20

FRUITS, VEGETABLES.

Apples, pr lb	5	@	8
Pears, per lb	—	@	8
Apricots, lb	—	@	—
Peaches, lb	15	@	20
Plums	—	@	—
Pine Apples, each	75	@	1 00
Grapes	—	@	—
Bananas, ₱ doz	75	@	1 00
Muskmelons	—	@	—
Watermelons	—	@	—
Blackberries	—	@	35
Cal. Walnuts, lb	20	@	30
Cranber'es, Org., do	—	@	25
do Eastern qt	—	@	—
Huckleberries	—	@	—
Strawberries, lb	15	@	20
Raspberries, lb	20	@	30
Gooseberries	5	@	12
Currants	5	@	8
Cherries, ₱ lb	10	@	30
Nectarines	—	@	—
Pomegranates	—	@	—
Oranges, ₱ doz	50	@	1 25
Lemons	50	@	75
Limes, per doz	—	@	25
Figs, dried Cal	12½	@	15
Figs, Smyrna, lb	25	@	35
Asparagus, lb	6	@	8
Artichokes, doz	25	@	—
do Jerusalem	—	@	—
Beets, ₱ doz	20	@	2
Potatoes, ₱ lb	2	@	3
Potatoes, sweet	—	@	6
Brocooli, each	10	@	15
Cauliflower	10	@	15
Green Peas ₱ lb	3	@	5
Cabbage, per hd	10	@	—
Oyster Plant, bn	—	@	—
Carrots, ₱ doz	—	@	25
Celery, ₱ dz	75	@	1 00
Cress, ₱ doz bnn	20	@	25
Onions	3	@	4
Turnips, ₱ doz bnnches	—	@	25
Brussels Sprouts	—	@	—
Eschalots	—	@	35
Dried Herbs, doz	30	@	50
Garlic ₱ lb	10	@	—
Green Corn, doz	50	@	—
Lettuce, ₱ doz	25	@	35
Mint, ₱ bunch	—	@	12½
Mushrooms, ₱ lb	—	@	—
Horse radish, ₱ lb	15	@	20
Okra, dried, ₱ lb	—	@	—
Pumpkins, ₱ lb	5	@	6
Parsnips, doz	—	@	25
Pareley	12½	@	—
Pickles, frsh, ₱ lb	—	@	—
Radishes, doz	20	@	25
Sage	—	@	25
Summer Squash	3	@	5
Marrowfat, do	5	@	—
Hubbard, do	—	@	—
Tomatoes, lb	12½	@	—
Mangoes, ₱ doz	—	@	—
Spinage ₱ hskt	—	@	12½
Rhubarb	4	@	6
Green Chilioe	—	@	25

LEATHER.

[WHOLESALE.]

WEDNESDAY M., July 5, 1876.

City Tanned Leather, ₱ lb			22@25
Santa Cruz Leather, ₱ lb			22@25
Country Leather, ₱ lb			22@25
Stockton Leather, ₱ lb			25@29
Jodot, 8 Kil., per doz			$50 00
Jodot, 11 to 13 Kil., per doz			65 00@ 79 00
Jodot 14 to 19 Kil., per doz			82 00@ 94 00
Jodot, second choice, 11 to 16 Kil. ₱ doz			57 00@ 74 00
Cornellian, 12 to 16 Ko			57 00@ 67 00
Cornellian Females, 12 to 13			63 00@ 67 00
Cornellian Females, 14 to 16 Kil			71 00@ 76 50
Simon Ulmo Females, 12 to 13, Kil			58 00@ 62 00
Simon Ulmo Females, 14 to 15, Kil			66 00@ 70 00
Simon Ulmo Females, 16 to 17, Kil			72 00@ 74 00
Simon, 18 Kil., ₱ doz			61 00@ 63 00
Simon, 20 Kil. ₱ doz			65 00@ 67 00
Simon, 24 Kil. ₱ doz			72 00@ 74 00
Robert Calf, 7 and 9 Kil			35 00@ 40 00
French Kips, ₱ lb			1 00@ 1 35
California Kip, ₱ doz			40 00@ 60 00
French Sheep, all colors, ₱ doz			8 00@ 15 00
Eastern Calf for Backs, ₱ lb			1 00@ 1 25
Sheep Roans for Topping, all colors, ₱ doz			9 00@ 13 00
Sheep Roans for Linings, ₱ doz			5 50@ 10 50
California Knssett Sheep Linings			1 75@ 4 50
Best Jodot Calf Boot Legs, ₱ pair			5 00@ 5 25
Good French Calf Boot Legs, ₱ pair			4 00@ 4 75
French Calf Boot Legs, ₱ pair			4 00@ —

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by SUTRO & CO.]

SAN FRANCISCO, July 5, 3 P. M.

LEGAL TENDERS 10 S. F., 11 A. M., 89¼ to 90. Silver, 7½ a8.

GOLD in N. Y. 112.

GOLD BARS, 880 to 890. SILVER BARS, 12 and 20 per cent. discount.

EXCHANGE on N.Y., 50-100 per cent. premium for gold; 00 London bankers, 49; Commercial, 49¼; Paris, five francs per dollar; Mexican dollars, 9 per cent. discount.

LONDON — Consols, 93 to 93½. Bonds, 102¾

QUICKSILVER in S. F., by the flask, per lb, 47½@48c

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., July 5, 1876.

BAGS.

Eng. Stand Wht	13½	@	14
Neville & Co's			
Hand Sewed	13½	@	14
24x36	—	@	—
24x40	—	@	—
Machine do 24x40	—	@	15½
" " 23x40	14½	@	—
" " 22x40	14	@	—
" " 22x36	13	@	13½
Flour Sacks ½s	9½	@	11
" " ¼s	6	@	7
" " ⅛s	4½	@	5
Hessian 60-in	12¼	@	14½
do 45-in	—	@	10½
do 40-in	8½	@	9
Wool Sacks, 3½ lbs	45	@	50
do 4 "	50	@	52½
Stand. Gunnies	14	@	15
single seam no	—	@	—
Bean Bags	7½	@	8

CANNED GOODS.

Asst'd Pie Fruits in 2½ lb cans	2 75	@	3 00
do Table do	3 75	@	4 25
Jams & Jellies	4 25	@	—
Pickles ½ gl	—	@	3 50
Sardines, qr box	1 65	@	1 90
do hf boxes	3 00	@	—

COAL—Jobbing.

Australian, ₱ ton	—	@	10 50
Coos Bay	8 00	@	10 00
Bellingham Bay	—	@	8 50
Seattle	10 00	@	—
Cumberl'd	—	@	18 00
Mt. Diablo	6 25	@	8 25
Lehigh	—	@	22 00
Liverpool	10 00	@	11 00
West Hartley	—	@	14 00
Scotch	9 00	@	11 00
Soranton	13 00	@	16 00
Vancouver's Isl	10 50	@	2 00
Charcoal, ₱ bsk	75	@	—
Coke, ₱ bbl	—	@	60

COFFEE.

Sandwich Island	—	@	21½
Costa Rica per lb	22½	@	—
Gnatemala	—	@	22½
Java	—	@	31
Manilla	—	@	21½
Ground in cs	25	@	—
Chicory	27	@	—

FISH.

Sao. Dry Cod, new	4	@	4¼
cases	6	@	7
do boneless	8½	@	10
Eastern Cod	8	@	8¼
Salmon in bbls	7 25	@	—
do ½ bbls	3 75	@	4 00
do 2lb cans	2 50	@	—
do 1lb cans	1 35	@	1 40
do Col. R. ½ lb	5 00	@	5 50
Pick. Cod, bbls	22 00	@	—
do ½ bbls	11 00	@	—
Mack'l, No. 1, ½ bbls	11 10	@	—
" Extra	—	@	12 00
" in kits	1 90	@	2 25
" Ex mess	3 50	@	4 00
" Ex mess, ½ bs	—	@	12 00
Pio'd Herr'g, bx	3 00	@	3 50
Bos. Sm'k'd Her'g	40	@	50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl	2 00	@	2 25
Cement, Rosendale, do	2 75	@	3 50
do Portland do	4 75	@	5 50
Plaster, Golden Gate Mills	3 00	@	3 25
Land Plaster, ₱ ton	10 00	@	12 50

MISCELLANEOUS.

Pulu	—	@	7½

NAILS.

Assorted size, keg	3 75	@	4 00

OILS.

Pacific Glue Co			
Neat F't No. 1	1 00	@	90
Pure	—	@	—
Castor Oil, No. 1	—	@	1 15
Baker's A A	—	@	1 15
Cocoanut	52	@	55
Olive Plagniol	5 50	@	5 75
do Possel	4 75	@	5 00
Palm lb	9	@	—
Linseed, raw	—	@	70
do boiled	—	@	75
China nut in os	65	@	—
Sperm, crude	1 80	@	1 85
do bleached	1 90	@	2 25
Coast Whales	47½	@	50
Polar, refined	—	@	50
Lard	—	@	1 20
Olsophine	—	@	28
Devoe's Bril't	25	@	27
Long Island	—	@	25
Eureka	26	@	27
Devoe's Petro'm	25	@	27½
Barrel kerosene	23	@	25
Olive	—	@	3 50
Downer Kerose's	—	@	37½
Elaine	37½	@	—
Gas Light Oil	23	@	25

PAINTS.

Pure White Lead	9¾	@	10¼
Whiting	—	@	1¾
Putty	4	@	5
Chalk	—	@	1½
Paris Whits	—	@	2½
Ochre	—	@	3½
Venetian Red	—	@	3½
Red Lead	10	@	11
Litharge	10	@	11
Eng. Vermillion	—	@	1 25
Averill Chemical Paint, per gal. White & tints	2 00	@	2 40
Green, Blue & Ch Yellow	3 00	@	3 50
Light Red	3 00	@	3 50
Metallic Roof	1 30	@	1 60

RICE.

China No. 1	5½	@	5¾
Hawaiian, ₱ lb	7½	@	7¾
Carolina, ₱ lb	10	@	—

SALT.

Cal. Bay, per ton	10 00	@	14 00
do Common	5 00	@	7 00
Carmen Island	12 00	@	15 00
Liverpool fine	22 50	@	25 00

SOAP.

Castile ₱ lb	10	@	11¼
Common brands	4½	@	6
Fancy do	7	@	9

CANDLES.

Grant's	16½	@	17
Mitchell's	20	@	22

SPICES.

Cloves ₱ lb	45	@	47½
Cassia	23½	@	26½
Citron	28	@	30
Nutmeg	95	@	97½
Whole Pepper	14½	@	14½
Pimento	16	@	17½
Gr'nd Allsp'ce	—	@	1 12
do Cassia do	—	@	1 50
do Cloves do	—	@	1 50
do Mustard do	—	@	1 20
do Ginger do	—	@	1 00
do Pepper do	—	@	1 00
do Mace do	—	@	2 00
Bowen's Pure Ground ₱ lb	—	@	50

SUGAR, ETC.

Cal. Cube per lb	—	@	12¼
Circle A crusned	—	@	12

Nurserymen.



SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Araucarias, Pines, Cypress, etc.; Fine assortment of Camelias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.
B. B. WILLIAMS, Santa Barbara, Cal.

BLOOMINGTON NURSERY, F. K. PHŒNIX, Bloomington, Ill. Price lists free. 4 Catalogues, 25c.

Seedsmen.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-1y

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞ Illustrated Catalogue free on application.

COHANSEY GLASS TOP

FRUIT JARS.



FRUIT IN CONTACT WITH **GLASS ONLY.**

Elastic Pressure by Spring Clamps on Shoulder Joint.

The Screw Clamp turns freely on Cover and Inclines, and tightens the Jar quickly and is Easily Tested.

Easily opened and closed, without wrench or tool.

Every Jar being inspected, there is no trouble in using.

The Handsomest and Best Glass Lid Fruit Jar.

COHANSEY GLASS MF'G CO.,

N. W. Cor. Third and Arch Sts., Phil'a.

REDDINGTON & CO.,

Wholesale Agents. - - - San Francisco, Cal.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

Stockton, Cal.

MERCHANT MILL FOR SALE,

And 150 Acres Land. Turbine Wheel, 190 feet fall, 35 barrels per day. Good Home Market and Never Failing Water.

S. A. POLLARD,
San Luis Obispo.

Agricultural Articles.

J. W. CASSIDY'S

FRUIT DRIER.

A New Invention, although Thoroughly Tested, which Combines all the Improvements.



We warrant a complete success in drying all sorts of fruit and vegetables as thoroughly and more expeditiously than any other Machine, for less amount of fuel by 35 per cent, as we utilize all the waste heat which is lost by all other Machines.

Its simplicity of construction and its cheapness will put it in the hands of all who may want a Drier. We don't pretend to ask from $1,200 to $1,500 profit and royalty. We are willing that producers should make the profit and keep it. The Machine has been tested to our entire satisfaction, and met our most sanguine expectations. The fruit dried by our Drier was fully as good as that dried by any of the renowned Driers. We would say to all who contemplate putting up Machines, that we can make it a decided inducement for all such to give us a call, as we want to sell the entire right of the United States, State, County or Local, at such prices that the poor as well as the rich can use them. The capacity of the Machine will be in proportion to the size, ranging from 100 to 500 feet drying surface. This dryer was more fully illustrated and described in the RURAL PRESS of May 20th, 1876. Communications to T. F. BACHELOR, 622 Clay St., S. F., or to J. W. CASSIDY, Petaluma, Cal., will be thankfully received and promptly attended to.

NEW

Agricultural Implement Depot

—AT—

Watkins & Scott's Alameda Foundry,

SAN JOSE, CAL.

Agent for Walter A. Wood's New Iron Mower, Reaper, and Self-Binder, Haines' Single-Gear Header, Improved Sweepstakes Thresher, and Sulky Rakes; also, the Celebrated Revolving Sulky Rake, and the Champion Revolving Rake, and the well known Tiffin Revolving Rake; La Belle Farm Wagons, and Spring Wagons of all descriptions.

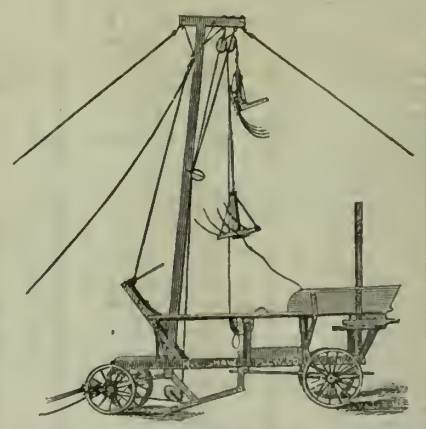
The attention of farmers is particularly called to the

New Revolving Sulky Rake.

It has met an enormous sale at the East and in and around Sacramento.

Also, all kinds of new and second-hand machinery for sale. Farmers and others will find it to be to their interest to call on me before buying, as I am selling everything very low for cash.

ORRIN TABER.



This cut represents a DERRICK AND FORK, for the purpose of supplying GRAIN IN THE STRAW TO A THRESHING MACHINE. The success of this machine is beyond question. It is a saving of EIGHT OR TEN DOLLARS PER DAY over the hand fork mode. We also make DERRICKS for the purpose of STACKING HAY OR GRAIN, which meet with great favor everywhere. Manufactured by **MATTESON & WILLIAMSON,**
Stockton, Cal.

TABER'S

IMPROVED HAY FORK.

[Patent Applied For.]

Is the most perfect, and easiest operating derrick fork in existence. One man can operate it with the greatest ease, as the strain of lifting the fork causes it to grapple its load automatically, while a pull upon the releasing cord, when the fork has been lifted to the desired place, causes it to drop the load instantly.

There is nothing in the construction of this Fork that is liable to get out of order.

Farmers will do well to examine this Hay Fork, as it saves expense and greatly facilitates the handling of hay, grain and straw. Communications addressed to

J. T. HOYT, Gen. Agent,

SAN MATEO, CAL,

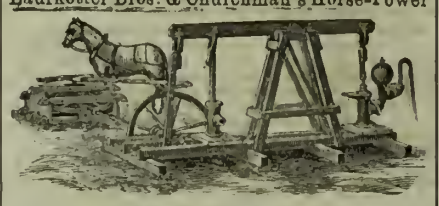
Will receive Prompt Attention.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power



[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

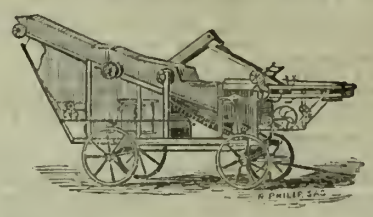
Manufactured and for sale by

LAUFKOTTER BROS.,

Cor. J and 10th Sts., Sacramento.

JACKSON'S

PATENT FEEDER & ELEVATOR



For Threshing Machines.

The most successful Automatic Feeder yet invented; it has had the severest tests in all kinds of grain, long, short, wet or weedy, during the past six years. There are over two hundred in use in the Sacramento valley. I will give full guarantee to purchasers Send for special circular. Address,

BYRON JACKSON,

Patentee & Manufacturer,

Woodland, Yolo County, California.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



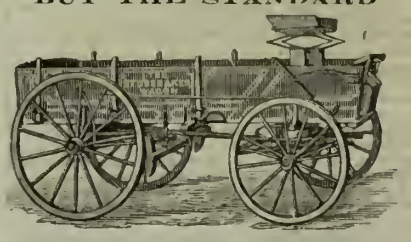
GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

t4v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.

BUY THE STANDARD



STUDEBAKER WAGONS.

We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

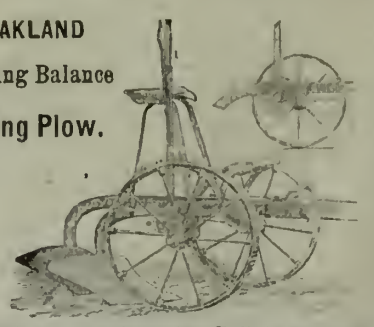
E. F. AMES, Gen. Agent,

Send for Price-List. Sacramento, Cal

OAKLAND

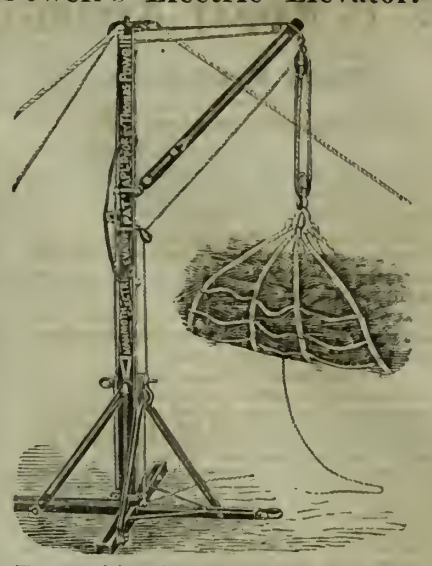
Spring Balance

Gang Plow.



Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal Established in 1858. Send for Circular and Price-list

Powell's Electric Elevator.



The great labor, time and money saving machine. This machine is used in the harvest field to elevate grain, hay and straw from the header box to the stack only a few seconds being required to elevate a large four horse load. The load is taken up in a center opening net or sling. Patented April 20th, 1875. For description, circular and price list, address

THOS. POWELL, Patentee, Stockton, Cal.

Or H. O. SHAW PLOW CO., Stockton, Cal.

The Famous "Enterprise"

(PERKIN'S PATENT)

Self-Regulating, Farm Pumping, Railroad and Power

WINDMILLS,

Pumps & Fixtures,



Have been in use in California for five years. Over 500 sold in the towns and farming districts of California. All Mills guaranteed. Send for circulars containing sectional and other illustrations, and further description, to

ISRAEL HORTON, Gen'l Ag't Pacific Coast,

Livermore, Alameda County, Cal.

FAULKNER'S EXCELSIOR

Portable Family Fruit Drier,

$65.00 to $75.00.

The Best, Cheapest and Only Practical Portable Family Fruit Drier Made.

It will do as good work as any Drier. It can be used in connection with the cook stove or any small stove; may be run in the house or out of doors. Is very compact and plain in its construction and simple in its management. A child can attend to it.

With this Drier every family can save their surplus fruit, and put it in condition to bring the cash or trade at the store. We have the world for a market; last year's stock is exhausted. There will be a ready sale at good prices for all you can make.

Manufactured and for sale by E. T. STEEN, 31 Beale street, where they can be seen in operation. Also for sale by Messrs. STRONG & WILLIAMSON, 418 Olay street, San Francisco, and Messrs. W. R. STRONG & CO., 8 and 10 J street, Sacramento.

County Rights for 15 years for sale low and on easy terms by

JAS. W. FAULKNER, Patentee,
31 Beale Street, San Francisco

Marster's Self Regulating

FEEDER

For Threshing Machines,

Is the only Feeder manufactured that feeds without moving all the straw in a body, consequently gives a more regular feed than it is possible to obtain with a draper feeder; it feeds the whole length of the cylinder; it is easily changed to feed fast or slow as desired; saves the labor of two men and does not require an experienced tableman to feed it. The separator needs no alteration with the exception of the removal of feed board to secure it in position, and does not have to be taken off when moving. It requires but little power to run it, and has no complicated parts liable to get out of order. Its success having been fully demonstrated, I cordially invite all parties interested to call and judge of its merits. For full particulars address

E. J. MARSTERS,
Stockton, Cal.

Works, Corner California and Sonora Streets.

Dewey & Co. {224 Sansome St} **Patent Agt's.**

HARVESTING MACHINERY,

MOWERS—Wood's Eagle, Peerless & Clipper.

REAPERS—RUSSELL'S PEERLESS.

HEADERS—Haines' Genuine Single Gear.

SEPARATORS AND POWERS.

Chicago Pitts, with End and Side Shake, with Pitts' 10 and 12 horse-powers, the best and strongest machines in market.

Steam Engines.

ENRIGHT'S STRAW BURNER, the latest and best for utility and economy. Capacity, 15 to 18 horse. MANSFIELD PORTABLE ENGINES, for wood or coal; 10 horse.

LYMAN'S SELF-FEEDER.

Invented by a practical thresher. Best in the market. Price only $150. It surpasses all others in durability and simplicity of construction. Can be applied to any Separator in a few hours, and taken off in 15 minutes. It is guaranteed to give satisfaction or no pay.

FULL SUPPLY OF "EXTRAS" FOR ALL OUR MACHINES.

Linforth, Kellogg & Co.,

Nos. 3 and 5 Front St., San Francisco, Cal.

GRANGERS' BUSINESS ASSOCIATION,

Incorporated Feb. 10th, 1875. Capital Stock, $1,000,000.

OFFICERS and DIRECTORS:

DANIEL INMAN, (PRESIDENT). AMOS ADAMS, (SECRETARY). THOS. FLINT.
R. C HAILE, (VICE PRESIDENT). THOS. UPTON. G. P. KELLOGG.
JOHN LEWELLING, (TREASURER). I. C. STEELE. W. L. OVERHISER.
O. HUBBELL. D. CAMPBELL.

SHIPPING and COMMISSION HOUSE,

Grangers' Building, - - - - 106 Davis Street, S. F.

Consignments of Grain, Wool, Dairy Products, Fruit, Vegetables, and other Produce solicited, and advances made on the same. Orders for Grain and Wool Sacks, Produce, Merchandise, Farm Implements, Wagons, Etc., solicited and promptly attended to.

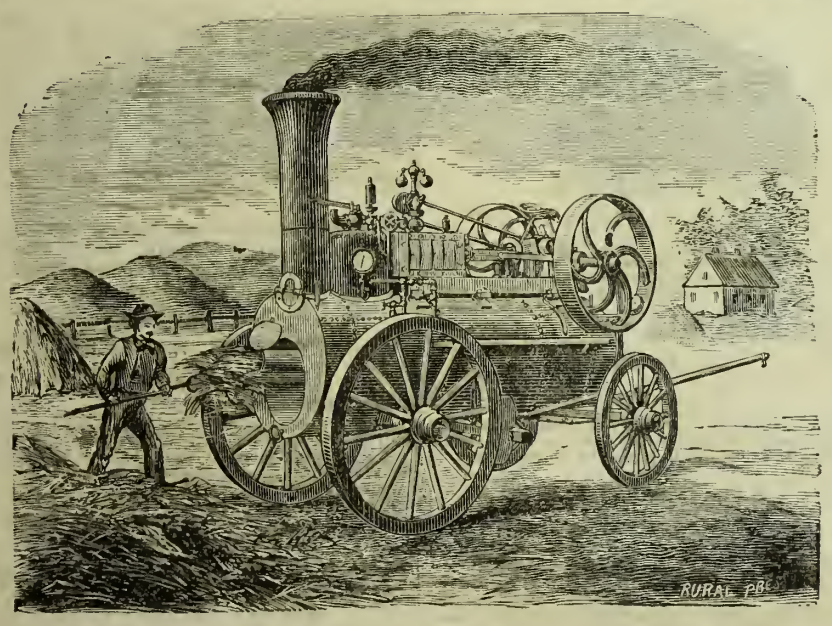
We do a strictly Commission Business, and place our rates of Commission upon a fair legitimate basis that will enable the country at large to transact business through us to their entire satisfaction.

Consignments to be marked Grangers' Business Association, San Francisco. Stencils for marking will be furnished free on application.

DANIEL INMAN, Manager.

THE ONLY RELIABLE

STRAW BURNING ENGINES.



RICE'S STRAW BURNING ENGINE.

These Engines were patented January 4th, 1874; re-issue May 4th, 1875, and are the first and only Engines which have been successful as Straw Burners.

These engines, for simplicity, durability, strength, and power, will surpass anything ever before invented. They are unquestionably the best engine in the world They are used with wood or coal, and no change is necessary, except to have suitable grate bars. These engines were sold last season to the largest farmers and best threshers in different parts of the state, and gave the very best satisfacton, as is proved by the many letters of recommendation which have been received.

CAUTION.

This is to give notice that I am the inventor and patentee of the original and only straw burning engine in use on this coast, and that any persons making or using straw burning engines other than those authorized by me or my agents, are infringing on my patent right, and will be prosecuted to the full extent of the law. I have already commenced suit against several of the infringers, and shall shortly extend my suit to all others. I have appointed Marcus C. Hawley & Co. as my sole agents for the manufacture and sale of my straw burning engines on the Pacific Coast, and all orders should be addressed to them.

SAN FRANCISCO, January 10th, 1876. H. W. RICE.

Referring to the above, we beg to inform our friends that we are making arrangements for manufacturing the RICE STRAW BURNING ENGINE on a large scale, and hope to be able to supply the large demand for the season of 1876. We would request all those in want of an engine to send in their orders early. Send for circulars, testimonials, and all other information to our office, 108 and 110 Front Street San Francisco, and corner Second and J Streets, Sacramento.

P3feb76tf* MARCUS C. HAWLEY & CO.

EXTRAS! | EXTRAS!!

Headquarters for Extras for the following Harvesting Machines:

CLIPPER, WOOD'S EAGLE, RUSSELL'S AND WORLD MOWERS AND REAPERS, DAYTON AND CHICAGO

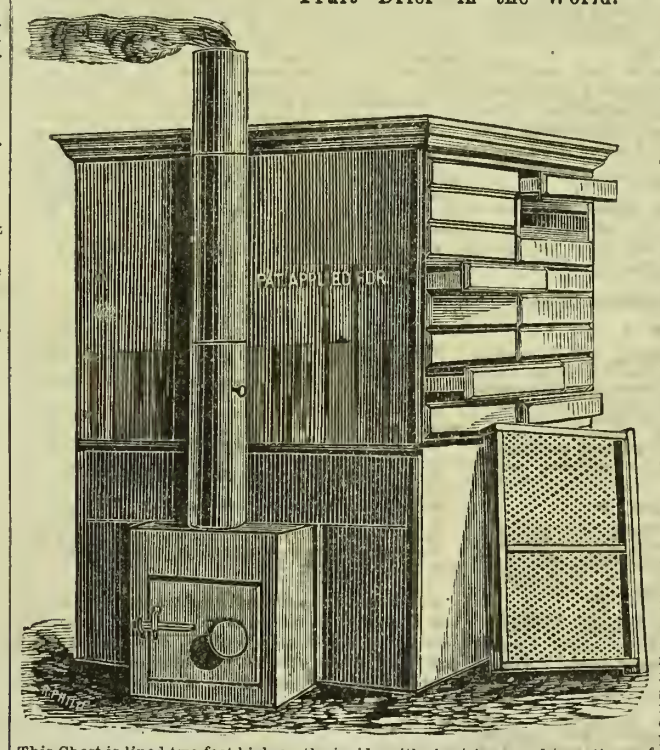
PITTS SEPARATORS AND HORSE POWERS, HAINES' AND CASE HEADERS.

Orders filled with utmost despatch.

LINFORTH, KELLOGG & CO., - - - 3 & 5 Front St., San Francisco.

THE CHAMPION FRUIT DRIER.

The Cheapest, Most Economical, and the Most Rapid and Easily Managed Fruit Drier in the World.



Drying Fruit and Vegetables has become one of the departments of labor and profit among the industries of California, and we invite Fruit Growers to come and see our CHAMPION FRUIT DRIER, and test it with any kind of Fruit or Vegetables before purchasing.

This Drier consists of a Sheet Iron Furnace, from five to eight feet long, and two feet high, with a partition running horizontally six inches below the top, on the inside, the full length and breadth of the furnace, except a space of five inches at the back end. Beneath this partition the fire is kept, the heat of which passes to the back, and there turns in a range upward through this five inch space, and passes between the partition and top, back to the front end of the furnace and out of a chimney, rising above the chest of drawers.

This arrangement completely equalizes the heat at each end and all along the top of the furnace, so that no one drawer is, at any time, hotter than the others.

The attachment to hold the fruit for drying consists of a box or chest of drawers made wide enough to set out on each side and end about 15 inches from the furnace, and it is inclosed with tongued and grooved lumber, except space in front for the furnace and on each side for the drawers to pass in above the furnace. This Chest is lined two feet high on the inside with sheet iron, and two tiers of drawers come in from each side, supported by pieces passing from one side across the top of, and one foot above the furnace to uprights on the other, and meet in the center over the furnace. The bottoms of these drawers are made of wire cloth, on which the fruit is laid for drying. Over the center of each tier of drawers is a hole four inches square in the top, with a slide to keep it open or closed, as the case may require, and through these openings the hot air passes in a continuous current from the furnace below. The space in front, not filled by the furnace, is closed by a piece of sheet iron fitted over and down on each side, and to this piece there are two ventilators at the side of the furnace where the fire is hottest, to admit air. These two are the only places where air enters, and it is made very hot by the heat of the furnace, as it enters and passes rapidly up through the fruit in the drawers, and out at the ventilators at the top. This simple arrangement keeps a coustant current of hot air passing through each drawer, which keeps it in the most rapidly dryiug process.

The chest of drawers is from four feet high to as high as desired. The drawers occupy about four inches space in the hight of the chest, and are about two feet deep, and 34 inches wide, and hold 25 pounds of fruit. But fruit will dry faster by putting in 12 pounds, and as it dries ont a little, double it up. The machine can be built to have from 12 to 108 drawers, and will dry from 1,000 pounds to five tons per day, of green fruit.

We can dry any kind of Fruit or Vegetables in from one and a half to eight hours, and our machine is well adapted for drying Meats and Hops. This Dryer was thoroughly tested on the 32d of May, and many orders were taken from the Fruit Growers that tested it.

PRICES:

No. 1.—12	Drawers,	drying	1,000	lbs.	of	Green	Fruit	per	day	$110.00
No. 2.—32	"	"	2,000	"	"	"	"	"	"	160.00
No. 3.—48	"	"	4,000	"	"	"	"	"	"	280.00
No. 4.—108	"	"	10,000	"	"	"	"	"	"	540.00

Orders must be sent to

J. M. KELLER.

Of the firm of KELLER & CO., J Street, Sacramento City,

Or to **B. W. TAYLOR,**

203 Seventh Street, San Jose, will receive prompt attention.

THE CHAMPION MILK PANS.

Space Occupied in Room, Depth, Capacity, Etc.

No.	Space each set occupies.	Cap'y of each Pan.*	Dpth
0	5 ft 6 in. long 3 " wide	12 gal'ns.	6 in.
1	6 ft 10 in. l'ng 3 " 10 " wide	18 gal'ns.	6 in.
2	7 ft 8 in. l'ng 4 " 2 " wide	25 gal'ns.	6½ in.
3	8 ft 7 in. l'ng 4 " 8 " wide	35 gal'ns.	7 in.
4	9 ft 8 in. l'ng 4 " 11 " wide	45 gal'ns.	7½ in.
5	9 ft 11 in. l'ng 5 " 4 " wide	75 gal'ns.	8 in.
6	9 ft 11 in. l'ng 5 " 4 " wide	65 gal'ns	9½ in.

*Four pans in set.



NUTTING & WILLARD,

SACRAMENTO, CAL.

OUR CENTENNIAL CAMPAIGN.

THE PACIFIC RURAL PRESS WITH PREMIUMS FOR $4.

Ten Thousand New Subscribers!

We ought to add 10,000 new names to our subscription list this year. There are twice that number of reading farmers on this cosst who should yet receive the PACIFIC RURAL PRESS, and who would resd it to their peounisry as well as intellectual profit. We are going to try and enlist a larger army of readsrs; not by getting out one or two good numbers of our paper and then running it "thin" the rest of the year, but by keeping up superior matter and improving the quality of every issue. That is to say, by furnishing

A Better Paper and Greater Inducements

Our late rates were established some two years ago, when there wss this difference in what we furnished each subscriber then and now:

1. Each subscriber paid his own postage. Now it is prepaid out of our pockets.
2. The reading matter, like that of most other weeklies, was largely set leaded (with open lines). Now it is set mostly solid, furnishing the subscriber at least one-fourth more reading in a column. This costs more for editing, composition, proof reading, etc.
3. Formerly we issued the paper (like other 16-page weeklies printed on this coast) uncut. Now it is stitched and trimmed, ready for use on any page, and in a proper form for preserving it for future reference. This also costs us much extra labor and expense.

Now, making the most of our improved facilities, and 20 years of constant experience in editing and publishing industrisl newspapers on this coast, we are determiued first to publish an agricultural and home journal

Worth its Full Price;

Besides this we propose to furnish VALUABLE PREMIUMS ADDITIONAL TO EVERY SUBSCRIBER, and therefore will give, from July 1st, 1876, until further notice, the following

New Terms for Subscriptions.

PREMIUM A.

With the Pacific Rural Press, (two volumes a year, comprising 416 pagee each) postpaid, a new litbographic **Map of California and Nevada,** of handy size, 16x20 incbes—sbowing the official township lines of the surveyed lands of California, and the three fine plato engravings entitled "Burial of the Bird," the "Flower Gatherer" and "Paul and Virginia," all postpaid, cash in advance, for.....$4.00.

PREMIUM NO. 2.

With the Pacific Rural Press one year, the above named **Map,** and a really **Choice Chromo** [description of whicb we will publish as early as the first of July,] all postpaid, for.....$4.00.

PREMIUM NO. 3.

With the Pacific Rural Press one year, the Map, and **"The California Patron"** (a monthly official jonrnal, P. of H.,) and the choice of **two of the fine plate engravings**—"Love," "Truth" and "The Christian Graces,"—all postpaid for.**$4.00.**

PREMIUM NO. 4.

With the Pacific Rural Press one year, Dewey's Patent Newspaper File Holder (black walnut) and the **Map of California and Nevada,** all postpaid, for.....$4.00.

PREMIUM NO. 5.

With the Pacific Rural Press for two years, the Map of California and Nevada, to any single address in the U. S., all in advance....$6.00.

PREMIUM NO. 6.

With the Pacific Rural Press for six months, the Map of California and Nevada. postpaid.....$2.25.

PREMIUM NO. 7.

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Fairs in 1876.

The Centennial (World's Fair), Philadelphia, Pa., from May 10th to continue till autumn.

Mechanics' Institute Industrial Fair, S. F., beginning August 8th.

California State Fair, Sacramento, from Sept. 18th to Sept. 23d.

The Southern District Agricultural Society, from Oct. 5th to Oct. 14th.

Nevada State Fair, Reno, Nev., from Sept. 11th to Sept. 16th.

Sonoma and Marin District Fair, from Oct. 9th to Oct. 16th.

Oregon State Fair, Salem, from Oct. 9th to Oct. 16th.

Northern District Fair, Marysville, from Oct. 9th to Oct. 16th.

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PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, JULY 15, 1876. [Number 3

Natural History of the Bee.

Inquiries which we receive from time to time reveal to us the fact that there are some of our readers who are beginning bee keeping with little or no knowledge of the natural history of the usefnl insect. These matters are elementary, and should be clearly understood before one can become thoroughly versed in the higher subtleties of the apiarian's science. To aid in the dissemination of the ground facts of the indnstry, we give upon this page an illnstration showing the different stages in the growth of the bee, the three classes into which the occnpants of the hive are divided, the structnre of different parts of the bee as shown by the microscope, and the distinct kinds of cells which appear in the brood oomb. Each figure in the engraving will be introduced in the proper place as we proceed with the description.

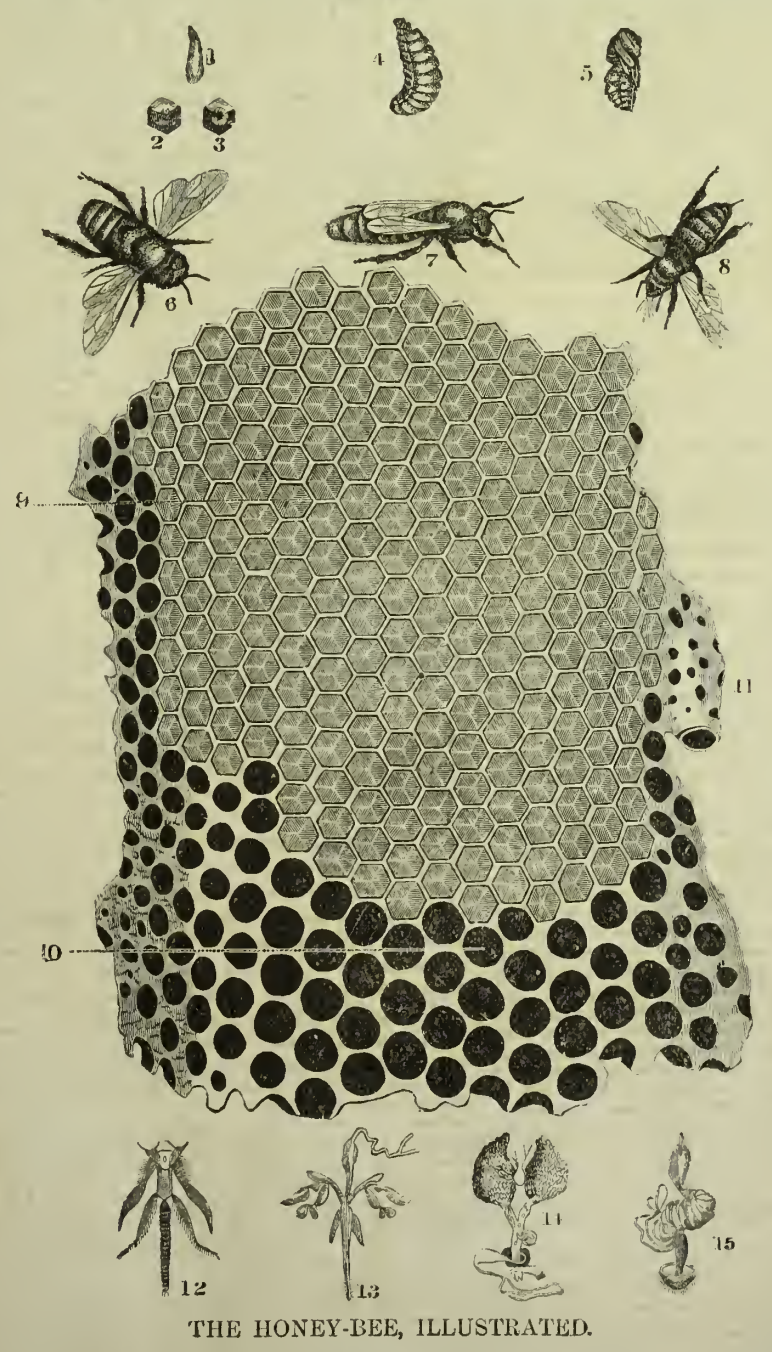
The Working Bees.

Of the three kinds of bees inhabiting a hive the *workers* form almost the entire swarm. They are called "neuters," becanse they do not serve for the propagation of the species. To explain this singnlar fact in the order of nature, it is thonght that all the workers would have been females, like the queen, had not the eggs from which they were produced been deposited in cells too narrow to allow a proper development of their sexnal parts. They are mnch less in size than the queens or drones, being abont half an inch in length.

The working bee (Fig. 8) is no less admirable in the strnctnre and form of its body than wonderfnl in its instinct or sagacity. It is perfect in proportion, and harmonious in the combination of its parts, all concnrring to the design of its creation. On each side of its head is a large, ronnd eye, sufficiently hard on the snrface to be proof against injnry from contact with the substances it ordinarily meets. When these eyes require cleaning, it is performed by the brnsh of the legs. The head is also furnished with two "antennæ," or horns, of delicate tonch, by means of which they reciprocally obtain by feeling a knowledge of each other, their queens, as well as their young. It is by these simple organs that bees are guided in the dark, and are enabled to construct their comb and cells and feed the yonng brood. It has a long tongue, proboscis or trunk (shown in magnified form in Fig. 12) for licking and sucking the honey, and two strong mandibles or teeth, which enables it to constrnct the cells and combs, as well as to carry all obnoxious substances from the hive. It has four wings and six legs. The third pair of the latter is much longer than the others, each containing a triangnlar cavity lined with strong cnrved hairs, used for the pnrpose of holding and carrying to the hives the pellets or little balls of pollen which it gathers from the anthers of flowers. Thus, when a bee enters a flower the pollen adheres to its body, whence it is collected by the hairy legs into the form of a pellet, and deposited in the cavity for transportation to its home. At the extremity of each of the six feet are little fangs, with which they occasionally attach themselves in clnsters to each other, and to the sid s of the hive. The abdomen is provided with two stomachs (magnified in Fig. 15)—the first being only a simple bag, which is transparent, and, when filled, is of the size of a pea, containing nothing but honey, as it is collected from the fields, a portion of which is disgorged into the combs, to serve as a store for the future, whilst another portion passes for nourishment into the second stomach. At the extremity of the abdomen there is a sting (magnified in Fig. 13), its weapon of defence, not consisting of a simple sharp-pointed instrument, but of two lancets, concealed in a director, and operated upon by muscles of nnc.mmon strength, which to a casnal observer wonld seem to be the sting itself. The external side of each of these lancets is provided with numerous arrow-shaped barbs, which prevent their extraction when pierced into the flesh, without great pain. When the retreat of the bee is hnrried, or when the part stung is too firm, as the skin of man, the sting remains in the wonnd, and the bee thus injured only departs to die in a few hours. Notwithstanding the sting has become detached from the insect, it still retains its power of penetrating fnrther into the wonnd. Again, the embarbed part of the sting is so finely polished that even with the best microscope no inequalities of surface can be discerned.

The Queen

Is distinguished from the others by her form and size (Fig. 7), being nsnally about twice as long as a worker, with a color tending to a deeper yellow, although qneens vary in size, according to the cells in which they are bred, some being scarcely larger than the working bee. Her abdomen is longer in proportion,



THE HONEY-BEE, ILLUSTRATED.

and its thickness is angmented when filled with eggs. Her legs are neither provided with bristles nor cavities, and her wings are much shorter than her body, in consequence of which it is somewhat difficult for her to fly. Her sting, which she seldom uses except when in combat with a rival, is strong, and bent at the end. The queen lays all the eggs in a colony. Fig. 14 shows the ovigerous tnbes and appendages in a magnified form. The eggs are quite small (magnified in Fig. 1), elongated, slightly cnrved, of a brown color, and are deposited into cells adapted in size and shape to the kind of bee that is destined to occupy them. The qneen, before she deposits an egg, examines whether the cell is clean and snitable to its fnture occupancy, being aware which kind of bee will be produced from the egg she deposits. She lays profusely in the spring, less in summer, but little in autumn, and in winter not at all. She first deposits eggs for workers, one, or rarely two, at the bottom of a cell; and, as the combs are placed perpendicularly, the eggs, of course, rest in a horizontal position (Fig. 2), and not on one side of the cell like those of wasps. She next lays eggs in the male cells, intended for drones, and, last of all, in royal cells for qneens. She always lays in the same order in respect to the kind of eggs, though they are less in number at every successive brood. Each sort is hatched in three or four days by the warmth of the hive, according to the season or climate, into "larvæ" or white worms, which lie in a curved position on the bottom of the cells (Fig 3), snrrounded by a thin, transparent fluid, or bee-bread, believed to be prepared from pollen, mixed with honey and water, which appears to be adapted to their age. As they advance in growth, they lie horizontally, with their heads toward the entrance, and repeatedly moult or shed their coats. After the larvæ are sufficiently large, nearly to fill their cells, (Fig. 4), say in about eight days, they prepare for another state, called "pupa," "chrysalis" or "nymph," (Fig. 5) dnring which they require no food. The workers being aware of this change, cover the mouths of the cells with a light brown wax. When they are thns entombed, they are at first milky and soft, in which state they continne even after they assume the insect form, nntil they gradually harden and change color, and in eight days more, at a trying moment, resulting in the death of many, break through their covering, and, without assistance, come forth perfect bes, the whole period of metamorphoses occupying about 20 days from the time of depositing the eggs. As soon as the young bees emerge from their cells, they are wiped clean and presented with food by the workers, and in 24 honrs after birth are capable of sallying forth into the fields, changing from a grayish or silvery hue to a yellowish brown. The larvæ of drones are hatched in the same way as those of the workers; yet the time of their growth is somewhat less than that of the queens, which is usually abont 16 days.

The Drones

(Fig. 6) are larger and thicker than the workers, though similar in color, and are shorter than the queens. As they never visit flowers for collecting sweets, their proboscis are shorter than those of the workers, and they reqnire no strong hairs to brnsh off, nor cavities in their hinder legs to hold pollen, and accordingly have not been provided with them. They are known to be males, and are only usefnl in propagating their species, taking no part in the constrnction of the cells, in collecting the food, nor any interest in the economical duties of the hive, which they seldom leave except in the middle of warm days.

The Comb.

Those who have seen a honey-comb must have observed that it is a flattish cake composed of a vast nnmber of cells, for the most part hexagonal, regnlarly applied to the side of each other, and arranged in two strata or layers, placed end to end. Those intended for workers (Fig. 9) are hexagonal and horizontal, abont an eighth of an inch in diameter, and six times as deep they are wide; those for drones (Fig. 10) are also horizontal, somewhat irregular, and larger; but the royal cells (Fig. 11), or the departments for queens, are circular, still larger, and arranged perpendicularly in the comb.

Agricultural Statistics.

The latest issue of the monthly report of the Department of Agricnltnre at Washington, contains a detailed description of the exhibition which the Department is making in the government bnilding at the Centennial. It appears that a number of large charts have been prepared to show, by scales and diagrams, the production of the different agricnltural staples in the several States. Some of these charts are printed in reduced size in the report and it will be interesting to review them and state the position occupied by our State in the showing.

It is shown, by figuring from total production and amount exported, that the amount of wheat consumed in this country is an average of five bushels per year for each individual. California produces an average of 29¾ bushels per capita according to our population. Minnesota produces 42 9-10 bushels per capita. Minnesota is the only State which surpasses California in this respect. Oregon, 25¾; Iowa, 24⅝; Wisconsin, 24¼. All the other States are under 17 bushels The New England States do not average a bnshel a head and Rhode Island, the least of all in wheat, only 3-1,000 of a bu-hel to a man.

Another chart shows the proportion of wheat sown broadcast and in drills. California drills 2 per cent. of her seed; Oregon 19 per cent.

A separate diagram shows the average yield per acre in the several States. California heads the whole list and is credited with a yield of 38 2 per acre, as an average of the crops between 1866 and 1875. Minnesota is in the second class and scores 32¼ bushels, Oregon is placed at 29.9.

The wages of farm laborers, monthly rate without board, from 1866 to 1875, are given for all the States. This shows the fluctuation in the price of farm labor during this period of 10 years. There is shown to have been a general decline in most States. California is marked at $45.71 in 1866 and $44.50 in 1875. These figures head the list, Oregon being the next, at $38.25. per month.

CORRESPONDENCE.

Farming in Placer County.

EDITORS PRESS:—On the road from Georgetown, El Dorado county, to Auburn, the county seat of Placer, some good farming land is to be seen, more particularly between Greenwood and Pilot hill.

Having ascertained that an article had appeared not long since in the RURAL, in reference to matters agricultural, horticultural, etc., about Auburn and New Castle, I set out, almost immediately after my arrival, on a visit to some of the ranches lying within a compass of six to eight miles of Auburn. Ten years ago I traveled trough some of these mountain counties. During that time the population in many places has greatly diminished. Some villages have changed so little that they look, no doubt, as natural to me on this second visit as to the oldest inhabitant. Not so with

Ophir.

It had greatly improved. Its quartz mines have done much for it, so that its name is almost as widely known as in the days of King Solomon. But it is not of its mines that we propose to write. The most striking change was in the number of homes beautified in this time by the planting of orchards and vineyards. Little did I dream that those little orange plants, just set out, would be found bearing, some sixty and some an hundredfold.

As a sample of what is being done here by Messrs. Peck, Curts, Geraldson and others, Mr. Bowman informed me that he is able to raise all kinds of fruit, such as apples, pears, peaches, plums, apricots, cherries, figs and oranges, also the smaller varieties, strawberries, blackberries, raspberries, gooseberries and currants, besides a great many other varieties of grapes. He has about 800 of the Malagas which he makes mostly into raisins. He finds that they do much better to be irrigated, becoming larger, sweeter and more solid, and do not dry up so much. He explained to me in detail his method of making raisins. As it might be a matter of interest to some of your readers, it will be given as briefly and concisely as is consistent with clearness.

How Mr. Bowman Makes Raisins.

The grape is allowed to become fully ripe. It is then picked and put on a frame, three feet square, inlaid with slats made of split shakes. The frames may be placed in a drier, if the state of the weather should make it necessary; but the best mode is to lay the frames on the ground, where the soil is dry and sandy. One principal advantage in the use of frames is that by placing an empty frame, turned upside down, over another frame filled with grapes, two men can turn over both frames at once, and thereby turn all the grapes at one operation, avoiding the tedious process of handling one bunch after another. A second advantage is that in case of rains the grapes can be speedily placed under shelter. He prefers to dry in the sun, and when the drying process is nearly complete, the grapes are placed in a house, packed in shallow boxes a week or so. They are then laid on the frames again, which are now put into the drier to kill the insects, when they are boxed up for the market. Four pound of grapes, when well filled out, make one of raisins. Mr. B. will probably make 2,000 pounds this year. In addition to the older orchards here

Messrs. Dixon & Symington

Have a tract of 160 acres, on which they have recently set out 500 trees and some 4,000 berry plants. The latter seem to pay the best. I was informed by Mr. Jamison that from two to three tons of raspberries could be produced to the acre, which would yield at the market rate of about $400 per ton, somewhere in the neighborhood of $1,000 per acre. They are shipping from New Castle, the nearest station, about one ton per day.

A few miles north of Ophir, Mr. Hulbert has a large number of Lanquedoc almonds, and is going extensively into the small fruits. On my way towards Dry creek, Mr. Andrew Smith is engaged in raising vegetables of every imaginable description to supply the farmers in the valleys. He will also set out about 2,000 tobacco plants this season. It has been successfully cultivated in this vicinity. In all this region about Dry creek and bordering on Bear river, fruits and vegetables do well. Alfalfa, when irrigated, can be cut four times during the season, and is said to yield from five to ten tons per acre, according to quality of land and amount of manuring.

On the authority of Mr. Oesh, two crops of potatoes under irrigation would yeild from six to 20 tons per acre. This gentleman resides within a mile of Bear river; represents the climate on all this range as healthful, free from chills and fever and having an abundance of good water for drinking and also for irrigating purposes. He has 14 different varieties of grapes; makes a considerable amount of wine annually, and has never failed in having a crop. He intends to cut down his grapes to two or three varieties by grafting, viz: the Catawba, the Black Zinfindel and the White Muscat. The first is in no danger from birds or wild animals, besides being the very best for wine. The Zinfindel makes the best claret, and the White Muscat he considers the best variety for raisins. There is not such a superabundance of fruit here or in El Dorado county, for two reasons—they did not commence so early and are nearer to market. The

English Walnut

Is a successful grower about Clipper gap. Mr. Predmore has a few very large trees that produce abundantly and are now 18 years old. Mr. Honn has a tree of the same kind with a history that will bear repeating. It began to split at one time in the main fork. A hole was bored through the body of the tree immediately below the fork. An iron bolt was inserted and the two parts were firmly united by means of a screw. It is now all grown over. The tree was saved and is 16 years of age, measuring two feet from the ground, 45 inches in circumference and is loaded with nuts. In the same yard was a large cherry tree, with a number of rocks in their forks, and in the walnut tree scraps of iron, such as old plow shares, parts of pumps and bars of iron. I inferred that they were placed there to get them out of the way. In this I was mistaken. It was for the purpose of preventing the sap from rising too fast, and for keeping the fruit and the nuts from falling before they came to maturity; also to secure a more abundant yield. The fact and the reason assigned are given for what they are worth.

Mr. Honn and his neighbors have found the

Castor Bean Useful

In exterminating the gopher. The bean is placed in the hole. As it is an experiment that costs but a trifle, I have thought it worthy of mention. It might be tried to some purpose in other places.

Lime.

In this vicinity lime is quite a product. Messrs. Holmes & Gwin are making about 20 tons per day. On my way I passed a ledge of limestone covering about 20 acres, the property of Mr. P. W. Cook. The lime is certainly of a superior quality, as white as the driven snow, and said not to blister in plastering. Two kilns are burned per month, which turn out about 600 barrels of lime, consuming about 40 cords of wood.

Mr. C. has 400 acres of land, well supplied with wood and living water, and in addition to his lime business, produces a very considerable amount of hay. Many others in the county are similarly engaged, cutting from ten to 100 tons. We found one of the patent mowers at work even as high up as

Todd's Valley.

Mr. White in that neighborhood expected to cut from 90 to 100 tons. Mr. J. P. Gaines, who lives within a mile of Auburn has put up 100 tons and Mr. Collins, his next door neighbor, about 70 tons.

Considerable attention is paid to stock. Some hogs, sheep, horses and cattle are seen everywhere and many bands of goats. Mr. Gaines has about 60 head of horses, mules and cattle, mostly fine blooded stock. In the

Angora Goat

Line, Mr. Willet near Bear river has probably the largest band, about 1,200 including all ages and grades. At Mr. Shirlands, three miles below Auburn, we tasted for lunch, some as finely flavored kid as that which tempted Esau to sell his birth-right, and we are also almost tempted right here to say something pretty in the way of a compliment, if we only knew how; but let that pass.

Mr. S. has under his charge about 900 goats, some of them of high grade. A portion of a fleece was seen here that measured over 12 inches. Mr. Tabor of New Castle has about 500. Rev. Mr. Peck at Ophir 400. Mr. Calvin, county superintendent of schools, from 450 to 500, and many similar or smaller flocks, making in the aggregate for the county of upwards of 5,000 head. It is said by those conversant with the business here, that there is no danger of glutting the market with mohair, that the demand is much greater than the supply, that Eastern manufacturers have to import it, and furthermore that the production can and in all probability will be doubled from year to year. As the fleece will be continually improving in quality as well as in quantity, the price as a consequence will grow better, as more will be induced to engage in the business of manufacturing when there is a better and more abundant supply of the raw material. K.

Forest Hill, June, 1876.

Irrigation No. 1.

EDITORS PRESS:—As there seems to be a falling off in your irrigating correspondence, and as I am asked to give my views and such facts as my long experience in irrigation has developed, the present time is perhaps a favorable one for that purpose. I submit the following synopsis:

Winter Irrigation.

I have worked out some experiments the present season upon winter irrigation. The results have been so satisfactory, and its working so consistent with nature and reason, that I am almost ashamed to acknowledge its never entering my head before. Believing the subject to be of great importance, and that some of your readers may be as unthinking as myself, and knowing also that many of them reside in dry counties, I look upon it as a duty I owe them to make known my experience, together with some arguments that may be urged upon the subject.

You are aware that many in this region predicted a large quantity of rain last winter. I was faithless; beleiving that there was a probability of their being mistaken. And, knowing that most of my land would not produce a paying crop without more water than fell the previous winter, also, that we were more liable to suffer in California from a scanty supply of water than from a superabundance, I concluded to irrigate; and commenced in December, 1855, to irrigate lands I wished to crop in 1856. I thoroughly wet some 80 acres. The wheat on the lands thus wet was 40 inches average hight, containing 72 grains to the head, plump and good. The unirrigated was 25 inches average hight and containing 24 shrunken grains to the head. The same quantity of seed and same amount of labor, with the exception of the irrigation, which cost 25 cents per acre, had been expended on one as the other. The vegetable land was cropped in 1855, some portions of which entirely failed, other portions were destroyed by a worm; the whole was decidedly a poor crop. This year the crop is good, and the worms have not injured it, (while the unirrigated, adjoining lands, are quite overrun by them) and had this not been irrigated, the crop would scarcely have been worth gathering.

The long, dry summers of California, extract or absorb all the moisture contained in uncultivated lands to the depth at least of ten feet. The earth is a reservoir which nature fills and empties, at least once a year, in a perfect or imperfect manner. If imperfectly filled by nature, man should make up the deficiency, as far as he wishes to cultivate. His garden and orchard should be particularly attended to. Ten feet of dry earth will swallow up one-third of its bulk of water; hence if a man be possessed of 10 acres of land, he has at the end of the dry season, a reservoir 10 acres in extent and three and a third feet deep, upon which it will be impossible to cultivate any crop, until the reservoir is at least partially filled with water. If imperfectly filled, your crops will be more or less imperfect. If perfectly filled, you can raise a better crop with less labor than you could by expending thousands of dollars to construct a reservoir of sufficient capacity to contain the amount of water desired, and apply it as your judgment dictated after the crop was planted. And for the reason that the first is applied to the roots of the plants upon perfectly natural principles, they receiving nourishment regularly and constantly, causing a perfect, firm, healthy growth and maturity, while the latter is altogether artificial and irregular in its application, frequently stunting, (which unavoidably happens where water is scarce) and then stimulates an unnatural growth and maturity, causing premature decay, as frequently happens with potatoes, onions, cabbage, etc.

The above was written in 1856, and after a further practical experience of 20 years and a careful perusal of the ideas contained therein, I see nothing in it to reject, but much to be said in its favor. JNO. M. HORNER.

Washington Corners, Alameda Co., July 2d.

Still on the Prospect.

EDITORS PRESS:—Last week I took a trip on the Southern Pacific railroad out to the desert. I went to take a look at a few of the blooming sages and flowerets on the desert side of Mount San Jacinto. I did not stay long for two reasons. One was excessive heat, and next, there seemed to be some danger of my being condemned by a court of examination to the walls of our insane asylum for daring to talk apiary or horticulture in this region. All over California, sheep and cattle husbandmen change range with the seasons when they can. With the desert blooming sages in a few hours run of Los Nietos, why cannot we of Nietos Cornfields (for we are all going into the bee business), run our bees out to some favored nook at Jacinto's foot, and when the heat of June arrives run them back, and turn them loose on our neighbors until October. To turn goats or pigs on our neighbors won't do, for they have redress at law. But we are privileged to swell our neighbors' eyes shut, and torment him, till he quotes psalms by chapters, with our bees, and call it all a joke.

Nestled about the foot of San Jacinto, on the desert side, are huge groves of the palm, not of dwarfish grow merely, like the seven palms, but of tropical dimensions.

The aborigine here has long since cultivated the Mission grape, and horticulture with him is a success. Where the palm is indigenous, why could not its cousin, the banana, flourish also? And why should not some of our fruits and vegetables, so much in quest for our early markets, succeed there also? Time and experience can soon tell.

Through San Gregonia pass, as a matter of philosophy, the winds are terrific. On the last section of the Southern Pacific railroad, the drifting sand is giving some trouble. Perhaps the track may have to be set for a few miles on trestle work.

Next month I calculate to make another cruise desertward, also to San Jacinto's summit, and I will write you of her wild bees, lofty pines, sawmills and eternal snows.

GEO. KAY MILLER.

Los Nietos, July 1st, 1876.

[Editorial Correspondence.]

The Centennial at Philadelphia.—No. 9.

After spending some five or six weeks in close attendance upon the Centennial, your correspondent has left his post for a while, to attend to another duty equally imperative—that of visiting the "old folks at home" and spending a few days amid the pleasant retreats of his early years in eastern Massachusetts. What he has seen and learned there; the changes, progress, etc., of a quarter of a century or more, may form the subject of some future letter. From this distance he is of course unable to give in detail the progress or condition of things in Philadelphia, and instead thereof will endeavor to place upon paper some facts in regard to

The Peculiarities of the Centennial.

One of the chief peculiarities of this American exposition consists in the fact that, unlike the expositions of the old world, which have been expected to show merely the developments and progress which may have been made between one exposition and the next preceding, ours is called a "Centennial," and we are expected to show a century's progress, an effort which carries us back to the very infancy of modern mechanical appliances—to a point of time anterior to the faintest conception of many of the achievements in science and art which during the century have stamped themselves deep into the very existence of the present age. By the act of congress that has called into existence the commission which has inaugurated this exhibition, the American people were invited to show their progress during the century in the 'arts which benefit mankind, in comparison with those of other nations." This invitation gives us something of an advantage in point of historic interest over other nations, who have come hither as they have heretofore gone to London, to Paris and to Vienna, with those appliances only which tell of to-day—which show forth their perfected manhood, leaving us alone to contrast the great achievements of the present time with the germs from which they started "one hundred years ago." In this first Centennial period of our existence as a nation, it is natural to think of the past and strive to form some approximate idea of the real life and surroundings of those who participated in our struggles for national existence, and the early steps which were taken in the great march of material progress which has led to the triumphant results which we see before us in this great exhibition. The home life of our forefathers and the condition of the industrial arts one hundred years ago, are of much interest for our present consideration, made all the more so from the wonderful changes which have taken place during the past century—changes which during that time have wrought a complete revolution in almost everything which relates to domestic affairs and to the industrial interests of the world. History offers no other such marvellous spectacle, no other such example of the might, grandeur and progress of a nation. Therefore most fitting is it that on this anniversary we invite the nations of the earth to witness the triumph of art and industry, in the advancement of which our own people have performed so large a part. Although those who have had this great charge in hand have given us no cause to apologize for the general character of the entertainment to which we have invited the nations, it would seem to have been more in keeping with the call and the occasion had the exhibitors been instructed or encouraged to have more largely mingled the past with the present.

It is true they have done much in this direction, but with a little forethought much more might have been done to add to the interest and instructive character of the occasion. The progress of the spinning machine, from the primitive domestic wheel, might have been most profitably shown through all its principal gradations up to the present most approved machine. One of the rough and clumsy handlooms upon which many of our fathers wove the cloth they wore upon their backs, might have been most instinctively placed in comparison with the light and elegant "jacquard" loom, which is to-day weaving, in machinery hall, elegant Centennial mottoes, with most perfect portraits of Washington, Victoria and other distinguished personages. So of the lathe and all the various machines for working in wood and iron. It would be interesting to look upon the clumsy contrivances originally used for hulling and ginning cotton, and be able to compare them upon the spot with the perfected machines now in use and on exhibition. The old leathern fire-buckets, to use which at a fire we old men, when boys, had to "form a line," and the antiquated hand engine of the same period should have been shown in contrast with the brightly burnished steam fire-engine of the present day. We would like also to compare the bright steel blades of the Ames' shovel, as shown to-day, with one of the old tools which, 40 years ago, the writer was accustomed to see the present millionaire turning out with his own hands—his father working in the shop by his side.

One hundred years ago there were but two steam engines in the United States—one of which was running a small pump in a brewery in Philadelphia and the other pumping water from a shallow copper mine, just across the

river, in New Jersey. What more interesting sight could have been shown than the intermediate steps by which those primitive machines have been gradually developed into the magnificent Corliss engine, which now stands out so prominently in machinery hall as one of the mechanical marvels of the day.

The First Locomotives in America.

The few pieces of antiquated machinery which are shown at the Centennial are just sufficient to create a desire for a more general exhibition of that character. Near the English exhibit, in machinery hall, there are several pieces of old iron, which the ordinary visitor would suppose were thrown aside for transportation to the junk shop, but which the more careful observer learns, from the label attached, are sacred relics, and all that remains of the first locomotive ever placed upon a railroad in America, called the *Stourbridge Lion*, built in England and placed upon the Delaware and Hudson railroad on the 8th of August, 1829, at Honesdale, Pa. What remains of this interesting relic are four tires and two hollow iron beams, the use of which latter, about a locomotive, would be difficult for any modern engineer to divine. In the engineering department, in the front gallery of the main building, is also shown the original drawing of the first American built locomotive ever put together, and which was first run on the Charleston and Augusta road, in South Carolina, on the 25th day of December, 1830. It was called the *Best Friend of Charleston*. The second built American locomotive, the *West Point*, was placed upon the same road on the 5th of March, 1831, less than three months later, at which time and place the writer of this letter was present. The wonderful progress that has been made in perfecting the locomotive and in advancing transportation facilities during the 45 years that have intervened since the dates above given, are among the marvels of the age.

Relics of Early Steamboat Experiments.

Near by the drawing above alluded to, in the gallery of the main building, may be seen the original boiler and twin screws built and operated by Stevens; also a second pair of screws, subsequently experimented with on a somewhat larger scale. They were mere models in size, designed for propelling nothing larger than an ordinary sized sailboat. There is also shown, in immediate connection, the remains of what we believe was one of Fulton's small boilers, used in his early experiments. These relics possess an interest of no ordinary magnitude to the engineer and student, and we think they will be preserved to grace the next Centennial, when, perhaps, even steam itself will have been superseded by some more potent or convenient motor.

Other Relics.

The first steam fire engine ever constructed is shown in the main building. Franklin's printing press—the one on which he is said to have worked in London—is also shown in the same building, and in the department devoted to the exhibition of printing presses and material. This department comprises one of the most interesting and instructive exhibitions shown, from the fact that by it the visitors may trace all the steps of progress from the old "Ramage" through all the various kinds of hand and power presses up to those marvels of perfection, the American Bullock and the English Walter press.

In the agricultural building we have also a few relics illustrative of the progress which has been made in the construction of agricultural implements. We have an old plow from Killingworth, Conn., said to be 120 years old, at least. The handles are made of roots formed by nature in the proper shape for such purpose. The mold board is of wood with an iron point. This plow was once used to turn up the virgin soil of old Connecticut; but is now preserved with the greatest care as a remarkable relic of the past. Another plow with a peculiarly elongated wooden mold board is shown bearing the date of 1776; and still another very ancient one from Ohio. These ancient relics of the olden time present a marked and interesting contrast with the polished steel blades and elegant woodwork of the modern instruments which are shown by their side. A similar exhibition in connection with other agricultural implements would have formed a most interesting and instructive study.

Among the relics of more modern days is a plow said to have been made on Daniel Webster's old farm at Franklin, N. H., and under the personal supervision of the great Granger-statesman himself.

Remington exhibits, in connection with his show of fire arms, the first breech-loading rifle ever made in the United States. It was made at Harper's Ferry in 1826. It is a "flint lock;" the chamber being raised by a spring, and hinged at the hind end. The cap is raised from the pan and the piece primed in the old way. This weapon is exhibited as the intermediate step in the manufacture of fire arms between the old flint lock musket and the modern breech-loaders and revolvers.

The Centennial System of Awards.

Another peculiarity in which the American Centennial differs from all previous international exhibitions is in the system of awards which has been adopted. It has been urged, heretofore, that the prizes and awards were too cheap; that the wish to be popular and not give offence has prompted the managors to bestow many medals that were not deserved, and which were conferred in classes whose premiums had been taken on merit, but were considered vitiated by the repetition and multiplication of honors bestowed where there was no display to deserve them. At the Centennial there are to be no medals awarded. The substitute therefor and the general plan of awards is given in a report of the Executive Committee as follows:

"Awards have generally been made by an international jury of 600 members. The apportionment of jurors to countries was tried on various bsses, but was usually made on the basis of relative space occupied by products of each oountry respectively in the exhibition. The great jury was divided into numerous small juries, who examined the products and prepared lists of names of persons whom they proposed for awards, and the proposals thus msde were confirmed or rejected by higher juries. This system brought together, unavoidably, many individuals unqualified for the work. The basis of representation was apparently fair, but its results were delusive. The countries nearest the exhibition occupied the largest spsce. Numerous remote countries filled smsller spaces. The number of jurors allotted to the latter body left them in many instances without jurors on many classes, and thus in voting on awards they had no voice, and the awards were in effect decreed by the few contiguous countries. Written reports were not usually made by juries, and if made, were not printed, consequently no person outside the jury knew on what grounds awards were made. Medals, when distributed, were silent verdicts, and awards thus made conveyed little useful information. Awards were based upon anonymous reports or reports not published, and final decisions were recorded in vague and mystic language not satisfactory to producers or the public.

"The method of awards adopted by the Centennial commission differs from this system. It dispenses with the international jury, and substitutes a body of 200 judges, one-half foreign, chosen individually for high qualifications. It dispenses also with the system of awards by graduated medals, and requires of the judges written reports on the inherent and comparative merits of each product thought worthy of award, setting forth its properties and qualities and presenting the considerations forming the ground of the award. Each report must have the signature of its author. The professional judgment and moral responsibility of the judges being thus involved, the integrity of the reports is assured. The success of this method absolutely depends upon the judicious selection of judges."

W. B. E.

HORTICULTURE.

Almond Culture in Santa Clara Valley.

EDITORS PRESS:—In the southwestern portion of this valley there are several quite extensive orchards of the almond tree, which, so far as I have observed, are doing very well. Of these, the orchard on the Spring Brook ranch, near Los Gatos, is the most prominent as to size, location and thorough culture, as far as my observation has extended.

While driving in this neighborhood last week I was so attracted by the beautiful dark green appearsnce of this plantation, the uniform size of the trees in their strsight rows, and the general neatness of the whole place as seen from the rosd, that I opened the big gate and drove down the avenue through the orchsrd to the dwelling house, which is pleasantly located about half a mile from the road at the foot of the hills, and near the fine springs that have suggested the name of the ranch. Here under the shsde of some fine trees in the yard I had the pleasure of meeting the proprietors of the property, Messrs. Gardner & Neff, of Placer county, from whom I received the following information in regard to their almond enterprise:

The orchard, which is of the Languedoc variety of almond, covers an area of

One Hundred Acres,

And numbers 20,000 trees. Although only two years old from the nursery last winter, they are so large and well grown as might well surprise any one who might see them, not acquainted with the wonderful productiveness of our climate and soil. The whole plantation is on gravelly, though level foothill land, and the cultivation has been thorough, not a weed or blade of grass could be seen from the drive. Mr. Neff informed me that they have their men go through the whole plantation six times a year with the most approved tools for cultivation. By this frequent disturbance of the soil moisture is retained near the surface of the land the whole summer through.

It would seem that a few more years will settle the question as to whether almond culture can be made profitable in this portion of the valley, if indeed there remains any question on the subject. Everything so far looks favorable for the best results. The trees are healthy and grow remarkably well under good cultivation without irrigation, and come into bearing very early, as may be seen by many of these young trees. The proprietors estimate the crop of nuts this year at 10,000 pounds—pretty good for trees less than three years old from the nursery. The only drawback to realizing large crops every year is late spring frosts, but in this locality the probabilities are that no serious trouble will come from this source. There are several other almond and walnut orchards in this neighborhood, which I wish to notice in some future letter.

G. W. M

Santa Clara, July 6th, 1876.

Almonds in San Luis Obispo.

The San Luis Obispo *Tribune* has been at some pains to investigate the condition of almond culture in that county. It says: "A few trees have been planted in almost every yard and orchard, but in no single instance have they been planted in numbers to constitute an orchard. The nearest approach is upon the place of J. P. Andrews, about three quarters of a mile from the court house. Here we find a little cluster of sixteen trees now seven years old. These trees have their third full crop upon the boughs, which is a sight to gladden the heart of man. Mr. Andrews informs us that two years ago, when the trees were but five years old, the gathered crop was one hundred pounds to the tree. Last year, owing to overbearing the previous year, it was fifty pounds to the tree. This year it is far in excess of two years ago, from the fact the trees are much larger, but we will call the present crop one hundred pounds to the tree. Here for three years we get an average annual production of 83⅓ pounds. This, at present quotations, 20@22 cents per pound for California soft shells, will give $17.20 as the annual cash returns per tree. With 100 trees to the acre, bearing equally well, we should have a cash return of $1,720. The cost of production could not in any case exceed twenty per cent of the product, which deducted, leaves a clear profit of $1,376. This is better than the best orange orchard in the world. It may be urged that we cannot rely upon these returns. All we can judge by is what has been done and here we have three successive crops to base our calculations upon. Those inclined to doubt the profits of this business should go to Mr Andrews' place before he gathers his crop and judge for themselves. We are willing to cut down the crop to 20 pounds and then we can see ten times the money in almonds that there is in barley, wheat or sheep and with little more labor."

SHEEP AND WOOL.

The Spring Clip of 1876.

The semi-annual wool circular of E. Grisar & Co., for the six months ending July 1st, is at hand, from which we make the following extracts:

In reviewing the wool business of the past six months, the increase in the production and the low prices at which it was marketed are the most noticeable features, The clip of this spring is the largest ever shorn in California, and exceeds the entire production of 1872. It is doubtful whether the clip will be as large again for some years, as the high price of land and the low price of wool and sheep render the business unremunerative.

Taking the improved character of the wools into account, prices have been lower than for many years. In many cases growers realized no more for their spring clip than for the fall shearing in 1875.

Although the quantity to be marketed was large, it has been readily removed, and stocks in proportion to receipts are smaller than they were a year ago.

At the opening of the season long stapled free wools, in fair condition, brought 18c. to 19c., and averaged stapled good conditioned parcels 16c. to 17c. Prices afterwards declined to 16c. and 17c. for long stapled and 14c. to 15c. for averaged staple, while parcels in poorer condition brought 13c. to 14c. Long stapled, slightly burry wools have ranged from 13c. to 14c., and ordinary wools from 11c. to 13c. A considerable amount of free wool has been sold at 12c., but such parcels were usually in poor condition or contained wool from diseased sheep. Choice northern wools opened at 18c., but soon advanced to 19c., and superior lots have brought 20c. to 21c., but only very light, good stapled lots realized the latter figures.

As to condition, the clip has not been up to expectations when we consider the abundance of feed which the sheep had, and the frequent rains during the winter. Many wools were taggy, and especially clips of 12 months' growth. The shrinkage, as a whole, is, however, rather less than last year.

The circular gives the receipts at San Francisco as follows:

	Bags.	
January	770	
February	738	
March	4,055	
April	31,213	
May	39,078	
June	12,779	
	88,633	Pounds. 26,590,000
Shipped exclusive of above		1,305,314
Total		27,895,314
On hand January 1st, about		420,000
		28,315,314
Oregon, 1,020 bags		302 000
Foreign, 501 bags		120,000
Grand total		28,737,314

The shipments during the six months aggregate 23,655,567 lbs., leaving a stock on hand of about 2,500,000 lbs. Of the quantity shipped away, 1,305,314 lbs. went from points in the interior, and 5,890,162 lbs. went by rail.

THE VINEYARD.

R. B. Blower's Raisin Making.

On Tuesday enening we spent an hour at the home of Mr. R. B. Blowers of Woodland, Yolo county, and secured from him much information concerning the grape and raisin business. Mr. Blowers is not so extensive as he is thorough in his work. He has spent time labor and means in his work, and has been abundantly rewarded for his expenditure. He stands the equal, if not the superior of any man in the United States in producing raisins. It has been decided that his raisins are superior to any in the Eastern market, or we might say, in the world. He recognizes but one variety of grape—the Muscatel—as pre-eminently a raisin grape. Of this variety he has about 25 acres, and about two acres in other choice varieties to the number of 25.

There is method in all he undertakes, and he first studies the art of production. He prunes his vines tolerably early, and believes in systematic irrigation. Not content with the liberal suppy of water which nature gives during the winter, he taps the canal, fills the ground full of water, and then again after the rains, or about the first of June. This water serves two purposes. It destroys the insects that infest the soil, and adds at least one-third to the production, both in quantity and quality. This he did last winter, and the masses of bunches and innumerable clusters which weigh down the vines at the present time, evince the wisdom of this work. His vines promise a yield at least one-third greater than ever before.

Last year he sold for table use, $2,259 worth of fresh grapes—about 900 crates of which were sent East. He also furnished over 100,000 cuttings, mostly of the Muscatel variety, to parties in this and other States. Aside from this, he made 1,500 boxes of raisins, weighing 20 pounds to the box. These he disposed of readily to San Francisco merchants, who claim that they are superior to any foreign raisins in the world. The estimate he places upon the present crop is that he will, after furnishing his usual amount for table use, make between 4,000 and 5,000 boxes of raisins. To meet the demands of the second crop, he is preparing to build a drying house. The rains come before the second crop is fully dried, and in this drying house, he will finish up the second crop. The first crop is sun-dried, which he claims as the best mode of drying.

Let no one who reads this suppose for a moment that all this is done without labor and expense. Mr. Blowers is an inveterate worker, and aside from his own labor he employs, from the first of September to the middle of November, 15 or 20 laborers at a cost of from $1,200 to $1,500—and he pays them all in gold. He produces an article on which there is no discount, and demands pay in a currency not subject to discount. There is nothing shoddy in his business. He has a grape called the "Emperor," which he promises to ship in good condition, to any part of the United States in good order. It is a fine table grape, and delicious to the taste.—*Yolo Mail.*

Cool Water.

A writer in the California *Agriculturist* gives the following useful hints about securing a constant supply of cool water for home use:

Our nights are so cool that a small stream of water running slowly a few rods will become cool enough to be very refreshing all through the day.

The arrangement may be very simple and cheap. Two syrup barrels and forty feet of trough will do it. The barrels will cost about two dollars, and should be thoroughly scalded and washed to take out the syrup taste. Set one near the water supply, and fill it. Set the other in the best cool place within reach. Hop vines will grow and cover an arbor for the barrel very quickly. Leave the shelter open on the north side. Before going to bed at night turn the faucet at barrel No. 1, so a small stream will run to No. 2, at the same time draw off the water left over in No. 2 to moisten the surrounding shelter.

The plan can be modified to suit circumstances. The water may be located in the milk house, but should be so arranged as to leave no permanent dampness about the floor. Where there is a tank raised from the ground a small pipe can be inserted and the water run any desired distance, and the larger the body of water thoroughly cooled by the night air the cooler it will keep through the day.

I have practiced for years drawing a barrel of water out of my irrigating ditch, taking care to fill the barrel in the morning before the sun shines on the ditch. If we ever doubt its paying for the bother we have only to neglect to fill the barrel one day and we have no doubt about it afterwards.

In the cities where ice is plenty perhaps a tank of cool water is not so necessary, yet I think there are many places where its cool waters and surroundings would be welcome. Where the city water comes into the chambers it would be easy to pass a small pipe through the wall and around the house into a lower room provided with a tank that would have a cooling influence on the whole house, and by passing the water through a filter before it entered the tank it would be improved in every respect.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

A Circular.

San Francisco, July 1st, 1876.

Dear Sirs and Brothers:—You are respectfully invited to send one or more delegates to meet with Golden Gate Grange at Huddy's hall, 909½ Market street, on Tuesday evening, July 25th, at 7½ P. M.

J. D. Blanchar, M.

Considering the magnitude of the wheat crop, and the low prices that will rule, unless some plan can be devised and a concert of action had by the producers to realize a fair profit for their crop: Therefore it is deemed advisable that there should be a convention of some of the leading wheat growers of our order to consider what measures if any can be adopted to effect the desired purpose.

It is thought that great good will grow out of a meeting of this kind. It is recommended that union meetings be called for Saturday, July 29th, to hear the report of their delegates and if deemed advisable to adopt some plan that may be suggested to accomplish the object.

Hoping to meet with hearty co-operation from every grain district, we are fraternally,

Dan Inman, Manager G. B. R.
C. J. Cressey, G. B.
Amos Adams, Sec'y S. G.
A. D. Logan, Ex-Committee.
J. M. Costigan.

[We are also requested by Worthy Master J. D. Blanchar to state that the Fruit and Wine interest will be discussed at the above named place on the first Tuesday evening in August, when it is hoped there will be a good representation present.]

A CARD.

Ione Valley, Cal., July, 1876.

Mr. J. D. Blanchar, Pres't California Farmers' Mutual Fire Insurance Association:

Dear Sir:—You will please permit me to acknowledge through you the receipt of $1,500, paid to me by your company on the 29th of June, it being the full amount of insurance on my barn, hay and stock, under policy No. 1688. Said insurance was taken by your traveling agent, F. L. Jackson, on the 15th of May last, and on the 20th of June I met with the loss, having to wait only nine (9) days for my money, without any loss of time or cost whatever to me. I would most earnestly recommend your company to the farmers of California as a safe, cheap and prompt company to insure with.

You have my permission to use this in any way you may see fit.

With my best wishes for the success and welfare of the company, I remain,

Yours, very truly,

Dwight Younglar.

Grange Directory.—A full list of Subordinate Granges, Masters and Secretaries, of California and Nevada, is published as often as once a quarter in this department. See issue of July 8th for latest insertion.

P. of H.—Subscribers who pay fully one year ($4) in advance for the Pacific Rural Press can receive the California Patron *free*, besides other premiums. See our premium list in another column.

Centennial Chat.—No. 1.

[Written for the Press by Mary Mountain.]

Arriving in Philadelphia, we were directed by a fellow traveler to a quaint old tavern called

"The Black Horse,"

and if one may judge from its ancient style it will soon be celebrating its own Centennial birthday. Its low ceilings, dark and narrow passages, clumsy half-doors and enormous old-fashioned bolts were all worth seeing, but the sitting-room itself was just an antique picture with its long, wooden settee and tall, wooden chairs, painted first a shining black and then fancifully touched off with roses, poppies and hollyhocks. But the pleasure arising from close contact with "ye olden time" was pretty nearly smothered when we entered our room and found the bed fat and high with immense feather-beds, two feather bolsters and huge pillows.

As a dainty dish for our late supper they served hot buckwheats and syrup, and for breakfast cold bread and jelly, thus reversing the usual order. The landlord was fat and jolly, his house neat with fresh paint and whitewash, and it seemed to have a steady-going prosperity of its own wholly independent of the present rush and scramble.

Next day we moved out "home" to the great

Grange Encampment,

And the story of our satisfaction still goes on. There is no trouble here for those who can enter into the spirit of the place, so warm and friendly, so cool and airy, cheerful and musical, quiet and restful, with a free and easy air of hospitality in the wide roominess of halls and corridors where you meet plenty of people from everywhere ready to be cordial. Then if you want seclusion there is your snug little room, really so small that it must be snug; and the comical roughness or rather plainness of walls and furniture is quite agreeable to our old memories of early California. And yet there is "another side" to these broad partitions which forces me to say they are not very secluding after all. Right on the other side of our boards are some women with the loudest voices and the greatest amount of silly small talk; so much that they wake up in the night to talk some more; and so loud that we cannot if we would avoid hearing their most confidential nonsense. In the night, when forbearance ceases to be a virtue, I rap on the wall but the effect is merely temporary; for such tongues were made to go and go they must. These nimble talkers occupy the two next rooms to ours and as they were about to go down to their first dinner they hawled out to each other just where to leave their money and this gush of confidence must have been heard by a dozen or more persons. I speak of this as a

Charming Tribute

To the honesty of our encampment; and not with any idea of recommending this new way of hiding money. There is hardly need of saying that these women are not Grangers; and though so full of noisy cackle over this first great journey of their lives, they are reserved toward others and careful not to make acquaintance, so that I am sorry indeed to be obliged to know so much about them. All this again agrees with our pioneer memories of the old cloth and paper houses that could keep no secrets.

This vast building is such an "original" that we all take the liberty of quizzing it and planning it all over to suit ourselves—at least this is in order among "us Yankees. Of course we plan our rooms a little wider and the corridors a little narrower; and when we get home so tired at night we wonder why we are spread over so much country that a great deal of walking must be done to reach any given point. But by the time we have been down to see Mr. Martin and his pleasant troop of table girls, and have taken our fill of nice hot supper, we are ready to respond to the quizzical new comer. Well, these Grangers have

Built for a Multitude

Who have not arrived. About the time of Harvest-feasts there will probably be no empty space here to wonder at; and this will be the largest and jolliest camp in the world.

Up to date, June 25th, there have been entertained about 25,000 people, and the average length of stay for each person has been about four days. Very many who have gone intend to return, and for the week of the Fourth they expect 1,500 guests. The whole number at any one time has not as yet been over 800, and just now there are not quite 300. They opened the 10th of May, and our Mr. Ewer, of the Rural, was their first guest. It is pleasant to hear them speak of him so affectionately.

"Ah, you should have seen Mr. Ewer as I found him one morning shivering out there by the kitchen range, and the rain pouring down all around him. You see we were all unfinished, and everything in confusion; he had only a bunk to sleep in like the rest of us, but he never flinched;—stuck by us like a brother and gave us sympathy and all the help he could.

We Shall Never Forget Mr. Ewer."

There are now about a dozen Californians here, and I surely expect to meet Mrs. Carr, whose pleasant words have so often brightened our Rural columns; but she is registered at the Globe hotel, and we can only wonder what charm is strong enough to keep her away from our camp.

The pleasantest evening treat has been listening to Bro. Wright, just home from Europe, and his lecture was full to the brim of topics nearest our sympathies and interests. Hearing praise of the speech and admiration of the man going the rounds, we were proud to say "he is one of our California farmers." Then the question was sure to come, "Do you have many of that sort out there?" * * * Now what could you answer to that? It is to be hoped there are several, and you may be sure we do our best to uphold the honor and dignity of our class and State. Every Friday evening is devoted to a

Farmers' Club.

A topic for discussion is given out the previous week, but the frequent shifting of guests bears hard upon "the question," preventing organization and sustained interest Yet this loss is more than made good by the novelty of an impromptu collection of master spirits from north, south, east and west, and after some ready-witted brother has started them off with a few brisk words, away they go on the full swing of talk and not one can avoid the wish to throw in his best thoughts; but there is not time for all to give, though each can take a few good things to remember. We happened to arrive on Friday, and the topic for that evening was

"Home Conveniences"

Many sisters were present, and I wondered how they could all keep still when there was not only invitation for them to speak, but much to provoke or inspire just the words that were needed. But they strictly attended to the inspired (?) command of St. Paul, and allowed the husbands to do all the talking. If you ask why did not I open up for the good and glory of my sex, I can only reply that my trunk had not come, and how can a woman talk with a trunk on her mind? Yet, though fully conscious of my jaded condition and travel-stained garments, I felt my soul rising to the demands of the moment and was about to say a word for

California Homes and Husbands,

When uprose my fellow pilgrim, "with eye in a fine frenzy rolling," and pursuing the special topic then under way he actually told that conservative audience (all dressed up, nice and dignified) how to do the family washing; and for the husband to roll up his sleeves and pitch into the suds and "rush things" until this dreaded "blue Monday bugaboo" shall shrink to the smallest size and fewest possible minutes. Thus did he fearlessly vindicate our California "washing conveniences," and now let every man rally to the standard.

Does anybody wonder why I neglect to write about the great Centennial? Ah, my dears, that's just what I am dreading. There is so much—so much; and my poor pen so stiff and incapable. I have heard more than one say that five years would not be enough for the intelligent observation of all the articles spread out here by all the world. So it weighs upon me like a burden that cannot be lifted; but next week I shall begin to lift a little at one corner.

On the first of July a very enjoyable entertainment was held at Elm station. It was a fraternal gathering of the "friends of the pen and plow," or in other words the representatives of the newspaper press of this and foreign countries, with a few invited guests. A feast was had and timely and spirited toasts were proposed and responded to by the editors present. All had a very pleasant time and good feeling abounded.

Points on Co-operation.

Professor Francis A. Walker, late Superintendent of the Census and now Professor of Political Economy at the Sheffield Scientific School of Yale College, has written an elaborate work on the subject of wages, entitled "The Wages Question," and the work is published by Henry Holt & Co., of New York. Professor Walker enters into the treatment of his theme with a depth of philosophy and a dash of controversy. The book may be truthfully commended to all who wish to enter deeply into the study of the relations between the employer and the employed, between labor and capital and all the issues growing out from these relations. Not that we would commend the book as infallible, for there are a number of positions taken by the author which we cannot approve, but it is worthy of praise as an honest effort to throw light upon a very important matter, and will be found worth reading, even for those things in which it is suggestive.

On the subject of co-operation, Professor Walker takes the position that "productive co-operation" has serious objections, which, with him, apparently, are so strong as to lead him to consider it well nigh a failure. Of "distributive or consumptive" co operation, he is is better impressed. As this distributive co-operation is the principle upon which our Grange stores are chiefly maintained, it will be interesting to quote the reasons why, in Professor Walker's opinion, they are useful and successful. He writes: "By distributive co-operation men seek to expend their incomes to better advantage. They seek to divide among themselves the profits of retail and even wholesale trade. The advantages of this species of co-operation are:

1. The division among the co-operators of the ordinary net profits of the retail trade.

2. The saving of all expenses in the line of advertising, whether in the way of printing and bill posting, or of the decoration of stores with gilding and frescoing, with costly counters, shelves and show cases, with plate glass windows and elaborate lighting apparatus, or of high rents paid on account of superior location. The aggregate saving on these accounts is very large. The "union" store may be on a back street, with the simplest arrangements, yet the associates will be certain to go to it for their supplies, without invitation through newspapers or posters.

3. A great reduction in the expenses of handling and dealing out goods.

4. A saving of vast amount, in the abolition of the credit system, involving, as that does, the keeping of books, the rendering of accounts, and much solicitation of payment; and, secondly, a very considerable percentage of loss by bad debts.

5. Security, so far as possible with human agencies, against the frauds in weight and measure and in the adulteration of goods, which are perpetrated extensively under the system of retail trade, the poorest customers being generally those who suffer most.

The difficulties of consumptive are fewer and less severe than those of productive co-operation. To handle and sell goods is a much less serious business than to produce them. When once marketed, the contingencies of production are past, the quality of the goods is already determined, and in the great majority of cases, only moderate care is required to prevent deterioration. Then again, the profits of retail trade are relatively higher, for the capital and skill required, than the profits of manufacture; and hence there is more to be gained by total or even a partial success. Finally and chiefly, the destination of the goods is already practically provided for; the members are certain to take off what is bought, if only ordinary discretion is used; waste and loss are therefore reduced to the minimum.

There are, therefore, powerful reasons in the nature of the case, for the success of consumptive co-operation. The facts bear out the prognostication, although even this form of association has had many disappointments and often come to grief, not always from causes easily to be determined. "Co-operation," says Mr. Holyoake, the historian of the movement in England, "is the most unaccountable thing that is found amongst the working classes. Nobody can tell under what condition it will arise. Why it flourishes when it does, and why it does not flourish when it should, are alike inexplicable." We may fairly presume that the case is not altogether so mysterious as Mr. Holyoake would make it out to be. Lack of interest in the result, and consequent lack of the patience, pains and self-denial necessary to achieve success, and unfortunate choice of managers, through indifference or intrigue, would probably explain most of the failures of co-operative trading, where the principle of cash payments has been strictly adhered to, and where the enterprises have been confined to the supply of the co-operators with the simple necessaries and comforts of life, without venturing into lines where fashion and taste predominate.

The Duty of the Hour.

Editors Press.—Our farmers are now engaged in harvesting the largest grain crop ever produced in California. The fertile fields, in response to the copious rains of the past season, have smiled upon the farmer and rewarded his toil with a bountiful crop, and he and his household have already counted the farm improvements and the additional comforts with which they propose to surround themselves; there is joy in his family circle, while they bend all their energies to garner in the ripened grain. But now a cloud has arisen in the horizon, which bids fair to darken all his prospects, and if the danger cannot be averted, the poor farmer finds himself likely to fail in realizing his anticipations. Not that his crop will fail or even be diminished, but that a relentless foe is on his track, and eager to seize upon the lion's share of the crop, leaving to the farmer only a pittance for all his toil and expenditures.

But why deal in metaphors? The plain English of the above is that the farmers are this year blessed with a large crop of wheat and other cereals, and that the hungry cormorant—the "wheat king" as he loves to be called—and other buyers and exporters of wheat have formed a ring to control the entire wheat market, and to pay the farmers just whatever price they have a mind to for their wheat, leaving to them barely enough to defray the expenses of raising and harvesting, while the speculators reap for themselves a golden harvest through the labor of the tiller of the soil. And we are informed that certain bonanza kings, not satisfied with the millions they have acquired by "cinching" the laboring people of San Francisco by their stock operations, have now turned their attention to the farmers, and joined the "wheat ring" of this city. There is no use to disguise the fact that a very powerful combination is made to control the wheat market, by chartering all the available tonnage and dictating their own terms to the farmers. But the question arises, the evil is apparent, but how, in what manner can it be averted? Not by the farmers becoming themselves shippers, this we would not advise, and we know that with the Morgan's Sons' experience, the advice would not be heeded, if given; no, our purpose is not to lead the farmers into complications which might bring disaster upon them, but, on the contrary, to endeavor to back the efforts of those who are planning their financial ruin.

The farmer can master the situation and bring the ring operators to terms if they will act upon this suggestion. In order to prevent competition in freights, and also to prevent farmers and others from shipping wheat on their own account, the wheat combination have chartered all the available tonnage in port and to arrive. In the charter or contract, there is a clause binding the charterers to pay a certain stipulated amount, generally from $200 to $300 a day, for every day that the ship is detained beyond the number of "lay days" specified by the charter party. Many of the ships in port have nearly exhausted their "lay days," the ring have bought enough wheat to load these ships, but the chartered ships are fast filing into port, and will soon be clamorous for their cargoes. Now right here is the point, if the farmers will combine and refuse to sell their wheat at current prices, they will soon bring the ring to terms. Let those needing money and compelled to have it, place their wheat in storehouses, they will then be able to borrow what money they need on reasonable terms. While it will cost something for storage, the farmer will have the benefit of increased prices. Besides a general war is imminent in Europe; already it has broken out, and vast armies are in the field. Russia, our great competitor for the English wheat market, will soon find her ports on the Baltic closed, shutting out her avenues for wheat exportation. Besides, should Russia take a hand in the war, they will need all their present crop at home to provide for future contingencies. In that case, wheat will command a high price in Liverpool, and if our farmers break up the freight combination they will be able to get a good round price for their wheat. The tables will then be turned and the farmers being masters of the situation, will be able to dictate terms to the ring. That this result can be accomplished there is no doubt, the only doubt in the premises is whether the

the farmers will co-operate and unite for their mutual benefit. Divided they can accomplish nothing, and even the efforts of a few would be futile. Let the Patrons in the wheat producing sections of the State meet in their Granges and sign an agreement binding themselves to each other to hold their wheat until a certain specified time, or until a certain specified price is reached, and then let them abide by their agreements as honorable men, who are determined to protect their mutual interests.

The wheat ring presumes upon the ignorance of the farmers, and their inability to co-operate for their mutual benefit. Let us show these greedy cormorants that they are now counting without their host, that the farmers knowing their interests are determined to protect them, and not allow a few moneyed speculators to reap the fruits of their toil. In this connection we are pleased to note that a convention of wheat producers is called to meet at the hall of Golden Gate Grange, in this city, on Tuesday, July 25th. Let the farmers of every wheat producing section of the State meet and send one or more delegates to that convention, and let all the brothers, and sisters too, living in the counties adjacent to this city all come to this meeting, and let us in the harmony and fellowship of our loved Order, endeavor to counteract the efforts of those who are so eager to despoil the farmers of their hard earnings.

T. H. M.

In Memoriam.

Ceres Grange, No. 64, at a regular meeting, hold June 24th, 1876, adopted the following resolutions:

WHEREAS, It has pleased an all-wise Providence to remove from our midst our worthy sister, MISS P. HARP (daughter of our Worthy Past Master W. B. Harp), loved by all for her modest Christian and noble qualities, and, while health lasted, ever encouraging her sisters and brothers in our grand work by her presence, therefore be it

Resolved, That while we bow with humble submission to a decree of an all-wise Providence, we mourn the loss of a beloved sister and friend, and most deeply regret the pain her departure has caused. We hereby do offer our heartfelt sympathy to her bereaved parents, relatives and friends.

Resolved, That a copy of these resolutions be sent to the bereaved family, that they be placed on the minutes and that a copy be sent to the PACIFIC RURAL PRESS, Modesto *Herald* and Stanislaus *News*.—[Committee: MRS. Lucy A. Hawkins, Cyrus Lee and J. M. Henderson.

DINNER AND HOP AT ELM STATION.—We acknowledge the receipt from R. H. Thomas, secretary of Elm Station Centennial Encampment, of an illuminated invitation to a complimentary dinner and hop, given the Press July 1st. Verily Elm Station is a joyful place.

General News Items.

MR. WYMAN has qualified as United States Treasurer.

A PROCLAMATION has been issued calling to arms, all Christians throughout Turkey.

THE excessive heat in the Eastern States the past week has been the cause of many deaths.

SANTA ANNA, the famous Mexican general, died in the city of Mexico on the 21st ult. at the age of 84 years.

THERE was a light rainfall in this city on Friday last—an unusual occurrence at this time of the year.

THE loss of property in central Iowa by the recent floods is estimated at over $1,000,000, over $300,000 of which is in Warren county.

AT the request of the President, the Commissioner of Internal Revenue tendered his resignation, to take effect on the 31st day of July.

THE tornado of last week in Iowa caused a terrible destruction and great loss of life. The village of Rockdale, was completely swept away.

THE North and Northwest Lancashire cotton spinners' and manufacturers' association has resolved to reduce wages 10 per cent. The reduction affects from 50,000 to 60,000 English operatives.

ON the 1st inst. Major General McDowell assumed command of the Military Division of the Pacific, vice Major General Schofield, who goes to West Point.

ON the 7th of July, 30 years ago, the American flag was hoisted at Monterey as a symbol that California had ceased to belong to Mexico and was a part of the United States.

AT the request of the President, Postmaster-General Jewell resigned on Monday. He will be succeeded by Judge J. N. Tyner, of Indiana, now Assistant Postmaster-General.

A LONDON special says that a dispatch from Valparaiso, by way of Montevideo, June 7th, announces that the American steamship *Georgia*, which left New York May 14th for Panama and San Francisco, and which has been previously reported as having touched at Rio Janeiro, is ashore in the Straits of Magellan, and will probably be a total loss.

HOW TO BURN A STUMP.—This is the way a man in the south says he gets rid of his "stumps":—"I dig a hole about eight or ten inches deep by the stump—if possible between two projecting roots. If I cannot find two, then beside one. Then take a two-inch auger, with a long shank; set it near the center of the top of the stump, ranging the point to the hole dug by the side, and bore through. Make a fire in the hole in the ground, and there is no more trouble with the stump, except to fill up the hole where it once was. The auger hole serves as a fine or pipe that draws the fire, not allowing it to go out."

AGRICULTURAL NOTES.

California.

CONTRA COSTA.

SERIOUS LOSS BY FIRE.—*Gazette*, July 8: Last Monday afternoon the barn of Mr James M. Stone, about a mile north of Danville, in the San Ramon valley, was totally destroyed by fire, together with some 40 tons of hay, a separator, steam threshing engine, a valuable horse, various farming implements, sets of harness, and several minor outbuildings. The loss was placed at $3,000; insurance $1,500.

FINE WHEAT.—Dr. Strentzel has left a sample of finely headed Australian wheat from his hills on the Carquinez straits. The straw of the sample left measures from four and one-half to more than six feet in length, the heads averaging from 50 to 60 grains each, and he thinks the crop will not fall short of 40 bushels per acre. The tallest straw and largest headed wheat is on ground that was worked only with a cultivator.

WHEAT AND CORN.—Antioch *Ledger*, July 8: The wheat crop, although exceptionally large, will not yield as many anticipated a month since. Some of the best grain has been badly shattered out by the heavy winds. Eighty acres, belonging to J. W. Strickler, on the New York ranch, which would have yielded 60 odd bushels to the acre, will fall short more than one-half. This was the Proper wheat, but the same if true of the Club and other varieties. Messrs. Taylor and Plumley have each about 30 acres of corn near the Point of Timber that gives every promise of making a heavy crop. It is generally supposed that the land of this valley is not adapted to the growth of corn, but on that class of land here is undoubted evidence that mistaken views are entertained on his subject.

LOS ANGELES.

FINE TOBACCO.—*Express*, July 8: George Spiker, the expert in tobacco raising and curing, has shown us samples of three varieties of tobacco, just raised at Casta, near Anaheim. The samples comprises Havana, Connecticut seed and Turkish. They are nicely cured and give forth a very grateful aroma. Mr. Spiker informs us that this tobacco was planted in April. There are ten acres of ground in cultivation, and seven tons will be produced altogether this year from the three crops that will be planted.

LARGE BARLEY SHIPMENT.—*Outlook*, July 8: Messrs. Lucas Brothers have just shipped their barley harvested from 270 acres of land near Santa Monica. The entire yield was 14,460 bushels, making an average of over 53 bushels to the acre.

DRYING WORKS IN ANAHEIM.—*Gazette*, July 8: It is with no small amount of satisfaction that we announce to our readers that Messrs. Heimann & Sorenson will, within two or three weeks, erect Alden drying works on vineyard lot C 2, near the residence of Mr. Sorenson.

MARIN.

THE BUTTER YIELD.—*Journal*, July 6: Point Reyes is out doing itself in butter this season. The feed is splendid. Mr. A. H. Stinson has already packed over 100 barrels.

MENDOCINO.

STRANGE PEAR TREE.—A. O. Carpenter tells us he has a small, bearing pear tree that presents something of a curiosity. Last year the frost killed all but four of the first pears, and when these were about the size of pullet eggs the tree blossomed again and produced about 30 pears for a second crop. This year the tree is full of fruit about the size of pullet eggs, and is blossoming again for a second crop. The second blossoming follows the first right up, appearing at the ends of the limbs.

MERCED

SUNSTROKE.—*Express*, July 8: On last Saturday a man by the name of George Sherman became overheated while loading his wagon with barley on the ranch of Levi Jones, in a few minutes grew delirious, and in two hours from that time died. He was a man much esteemed by all who knew him. Deceased was a brother-in-law to Mr. Dingley of Knights Ferry. His death undoubtedly resulted from sunstroke.

NAPA.

BERKSHIRES.—*Register*, July 8: Mr. R. S. Thompson, of Brown's valley, received Monday evening by Wells, Fargo & Co's express, three fine thoroughbred three months old Berkshire pigs. They were from J. A. Howerton, near Paris, Bourbon county, Kentucky. Mr. Thompson has been very successful in introducing this superior breed of hogs into California, and is continually importing expensive specimens like those just received.

NEVADA.

ALFALFA.—*Transcript*, July 4: J. Perrin, since he left the sheriff's office, has been experimenting with alfalfa on his ranch below Grass Valley. He has 20 acres seeded to that crop, which is two or three years old, and he has sown 20 acres more this season. He will this year cut 140 tons of hay from it. Four crops a year can be raised. He irrigates from the water of Wolf creek. It is like other streams in which mining is done and Mr. Perrin informs us that the slickens contained in the water act as a splendid fertilizer to the clover. He proposes to continue sowing alfalfa until all his ground which can be irrigated is seeded. There is money in the business.

SACRAMENTO.

JULY RAINS.—*Record-Union*, July 8: Since 1849 we have had but five rains in the month of July, including the present. These have occurred in the following named years, and the following amounts designate the fall of each year in that month: In 1853, 0.001 of an inch, in 1860, 0.549; in 1866, 0.018; in 1873, 0.015. We have not the quantity that fell on Thursday, but at Sacramento, where the above record was made for the past years, the falt must have been at least 0.250 or one-fourth of an inch. So light a rain when the atmosphere was so dry immedietely before its occurance, and followed by drying winds, can have done no perceptible damage to cut grain in any shape. In standing grain, the high winds before the rain commenced may have shelled out some and thrown down considerable, rendering the labor of gathering it greater and the quantity gathered less. Other than this the damage to crops will be inconsiderable.

CUTTING AND CURING ALFALFA HAY.—There has been, and is yet to some extent, a prejudice against alfalfa hay as a winter feed for stock, especially horses. The principal cause that gave rise to and kept up this prejudice is to be found in the fact that the farmers did not understand when to cut it, or how to cure it, or perhaps, antecedent to either of these causes, we might mention another; that they did not know how to sow the seed. The seed was sown too thinly on the ground and the plants grew large and coarse and woody. Then this coarse growth was allowed to stand before cutting, till the plants had blossomed, and sometimes till the seeds had formed. In this condition the stems had become more like wood than clover hay, and the leaves had fallen off, leaving what was then called alfalfa hay more like a bundle of sticks than hay. Then again, it was formerly the custom of farmers to allow this over-ripe grass to lie in the sun and dry till it had neither color nor nutriment in it, and till even the seed that had formed on it had shelled out. Experience with this hay has taught farmers many valuable lessons as to its management. First, they have learned that the seed needs to be sown very thickly on the ground, so that the stems of the grass will grow small and slender. Secondly, they have learned that the grass, to make good hay, should be cut just as it is coming in blossom, before, in fact, it changes its color from green to blue. Thirdly, they have learned that as soon as the grass is well wilted in the sun it should be raked up into winrows and then put into ricks and allowed to complete the curing in this condition. By cutting the clover while thus green and treating it as indicated, the fresh, green color is preserved, the hay is kept in a soft and pliable condition, and all the nutriment is preserved, and the hay is relished and eaten by stock of all kinds with the same zest that they eat the fresh growing clover. The hay, while in the rick, if put up as suggested, goes through a sweating process that changes the juices to starch and sugar, and that fastens all the leaves to the stem, so that in future handling none is lost. Alfalfa hay cut and cured in this way is actually more valuable for cows, horses or sheep than the best wild oat, or wheat, or barley hay that can be raised, and is a good feed to winter hogs on. If cut when too ripe, and cured in the sun, alfalfa hay is not worth as much as poor wheat or barley straw; in fact it is hardly worth anything.

SAN DIEGO.

CALIFORNIA QUAIL FOR ITALY.—*Chronicle:* Signor Giuseppe Piazza, Italian Consul to San Diego, is en route for Europe via Philadelphia to visit the Exposition. Signor Piazza will make an extended tour and be absent about six months. He has been for many years an honored resident of California, and is an enthusiastic believer in the noble destiny of the Golden State. As a Centennial present from his adopted home for his native country he takes with him eight mountain quail, eight California quail, and eight Arizona quail. As he proceeds westward and eastward he will procure equal numbers of a different species of this handsome bird, and upon his arrival in Italy will present them to ornithological societies, for the purpose of stocking the country. They will constitne a very valuable present, and under the genial skies of Italy cannot fail to increase and multiply with astonishing rapidity. Italian sportsmen will appreciate the enterprise of their distinguished countryman, and King Victor Emanuel, himself a veteran "cacciatore," will hail the emigration from California to Italy with delight.

SANTA BARBARA.

GRAIN.—Guadalupe *Telegraph*, July 8: We have samples of "Chevalier" barley from the ranch of Wm. Douglas. One bunch contains 110 stalks and the other 98, each bunch being from one seed. The heads are well filled and the berries fine and firm. We have been presented with a sample of "Smith" wheat, by S. D. Triplett, who has introduced it here this season. The berries are plump, bright and very fine. It will yield about 20 sacks to the acre, and appears to be just the wheat for this soil and climate.

SONOMA.

CHILENO VALLEY.—Petaluma *Argus*, July 7: The beautiful and fertile region which is known by the above name has this year been especially productive. The hay and grain crops have been large beyond precedent. "Chileno valley," in the general acceptation of the expression, includes an area much larger than the valley itself, and embraces hill-sides and rolling lands that cover thousands of acres. In this section is situated some of the finest dairy ranches in the State, or in the United States. Butter of the best quality, and which has a reputation reaching to Chicago, New York, Boston and other Eastern cities, is produced here. A majority of those who conduct the dairy business are Swiss. They understand their occupation thoroughly, and have prospered well. This season has been a good one so far as feed and the quantity of butter produced are concerned, but prices have been so low that the profits have not been larger than usual. A large proportion of the inhabitants of Chileno valley were in Petaluma on the Fourth, and participated in the celebration.

THE DISTRICT FAIR. — The Sonoma and Marin district agricultural society is not an institution local to the two counties whose name it bears. Besides these it takes in Mendocino, Lake, Napa and Solano, and the inhabitants of the six counties can compete for premiums, purses, etc., on exactly equal terms. Our neighboring counties can contribute largely to the excellence and success of the coming fair, and there is good reason to believe that they will this year contribute more extensively than they have heretofore done. The directors have completed the speed programme and premium list, and in a few days they will be published in pamphlet form, and distributed far and wide. Our contemporaries in and out of the district will do a favor to the society by stating that the tenth annual exhibition will commence on Monday, October 10th, and continue through the week.

GRASSHOPPERS.—Grasshoppers have put in an appearance in great numbers in some places in the vicinity of Petaluma, and have already done considerable damage. Their raids thus far have been principally upon gardens, but in some cases they have attacked growing grain, potatoes and corn, and inflicted much injury.

STANISLAUS.

GOOD GRAIN.—*News*, July 6: The grain that has been threshed in the central division of our county, that is, around Modesto, Murphy's and Turlock, is generally turning out much heavier than was anticipated. The increase over the estimates often go as high as 20 per cent. The rule in the sections mentioned appears to be light straw and heavy grain.

TULARE.

HEAVY FARMING.—*Delta*, July 6: We are assured by those who have recently visited the Mussel slough country that the vast fields of grain in that vicinity are entirely free from the presence of smut or other disease. The herry is uniformly full and heavy. There are patches of 20 and 40 acres that will yield 70 bushels to the acre, and 100 acre patches that range from 40 to 50, and it is only the poor spots that range as low as 20 or 30. The same may also be said of the Tule river section, uniformly. Along the lake, on new ground, there is not, perhaps, as good an average, but with longer cultivation and more perfect and general irrigation we may hereafter expect the lake lands to equal the best in the county. There are thousands upon thousands of cheap lands lying near the railroad all through the county which have not been improved for want of easy irrigation. They were regarded a few years since as almost worthless, from being spotted with alkali and corrugated in places with hog-wallow. They are now being taken up and their best pieces turned to account, and eventually the alkali will be overcome. Then their nearness to the railroad will add a value which the other lands do not possess. Probably in 20 years the now vacant lands along the railroad will average in value with the first locations.

SECOND CROPS.—Farmers on Tule river, who put in late crops of cereals and have harvested them, have been plowing again and putting in crops of corn, beans, potatoes, pumpkins, etc., the ground still being moist enough in most places to produce these crops without irrigation. The same may be said of a large portion of the Cross creek and Mussel slough section. Those lands which the pioneers so readily rejected as only fit for a stock range, are proving not only the most fruitful and valuable, but also the most healthful, and their owners the most prosperous and thrifty.

YOLO.

LOSS FROM WIND.—Cor. Vallejo *Chronicle*: The north wind of one week ago shattered out a large amount of grain in this county. In some fields of Chili grain, fully 50 per cent. was lost. At this writing the bulk of grain in this region is in stack. There has been a scarcity of harvest hands most of the time, wages are $2 a day, although during the hottest days as high as $2.50 was paid by some. Threshing has commenced in earnest, and the yield is fully up to expectation. We can see hundreds of grain stacks in every direction, as far as the eye can reach, until some of them resemble small yellow dots painted against the horizon, and are lost to sight in the shimmering heat of the dim distance.

LARGE FIG.—*Mail*, July 6: E. R. Howard brought to our office on Friday last a fig, which was raised upon his place, measuring eight inches in circumference. It was quite ripe, of the blue variety, and the largest by three inches we ever saw. He says he has had them even larger than this one, and the meat was just as fine and the flavor as nice as any ever raised in this country.

Nevada.

EDITORS PRESS:—People here have just commenced haying. The grass is abundant. Grain looks well. Early volunteer barley will be ripe in about three weeks. Rain fell last night and this morning, and if the wind follows, heavy grain will lodge badly.—H. A. BRADSHAW, Paradise, Nevada, July 1st.



The Centennial Ode.

The following national ode, written for the occasion by Bayard Taylor, was read at the Fourth of July celebration at the Centennial Exposition:

I.

Sun of the stately Day,
Let Asia into the shadow drift,
Let Europe bask in thy ripened ray,
And over the severing ocean lift
A brow of broader splendor!
Give light to the eager eyes
Of the land that waits to behold thee rise;
The gladness of morning lend her,
With the triumph of noon attend her,
And the peace of the vesper skies!
For, lo! she cometh now
With hope on the lip and pride on the brow,
Stronger, and dearer, and fairer,
To smile on the love we bear her—
To live, as we dreamed her and sought her,
Liberty's latest daughter!
In the clefts of the rocks, in the secret places,
We found her traces;
On the hills, in the crash of woods that fall,
We heard her call;
When the lines of battle broke,
We saw her face in the fiery smoke;
Through toil, and anguish, and desolation,
We followed and found her.
With the grace of a virgin nation
As a sacred zone around her.
Who shall rejoice
With a righteous voice,
Far heard through the ages, if not she?
For the menace is dumb that defied her,
The doubt is dead that denied her,
And she stands acknowledged and strong and free.

II.

Ah, hark! the solemn undertone
On every wind of human story blown.
A large divinely-molded Fate
Questions the right and purpose of a State,
And in its plan sublime
Our eras are the dust of Time.
The far-off Yesterday of Power
Creeps back with stealthy feet,
Invades the lordship of the hour,
And at a banquet takes the unbidden seat.
From all unchronicled and silent ages
Before the Future first begot the Past,
Till History dared, at last,
To write eternal words on granite pages:
From Egypt's tawny drift, and Assur's mound,
And where, uplifted, white and far,
Earth highest yearns to meet a star,
And man his manhood by the Ganges found,
Imperial heads, of old millennial sway,
And still by some pale splendor crowned,
Chill as a corpse-light in our full-orbed day,
In ghostly grandeur rise
And say, through stony lips and vacant eyes:
"Thou that assertest freedom, power and fame,
Declare to us thy claim!"

III.

On the shores of a Continent cast,
She won the inviolate soil
By loss of heirdom of all the Past,
And faith in the royal right of Toil!
She planted homes on the savage sod,
Into the wilderness lone
She walked with fearless feet.
In her hand the divining rod,
Till the veins of the mountains beat
With fire of metal and force of stone!
She set the speed of the river-head
To turn the mills of her bread;
She drove her plowshare deep
Through the prairie's thousand-centuried sleep;
To the South, and West, and North,
She called Pathfinder forth,
Her faithful and sole companion,
Where the flushed Sierra, snowy-starred,
Her way to the sunset barred.
And the nameless rivers in thunder and foam
Channeled the terrible canon!
Nor paused, till her uttermost home
Was built, in the smile of a softer sky
And the glory of beauty still to be,
Where the haunted waves of Asia die
On the strand of the world-wide sea!

IV.

The race, in conquering,
Some fierce Titantic joy of conquest knows:
Whether in veins of serf or king,
Our ancient blood beats restless in repose.
Challenge of Nature unsubdued
Awaits not man's defiant answer long;
For hardship, even as wrong,
Provoked the level-eyed heroic mood,
This for herself she did; but that which lies,
As over earth the skies,
Blending all forms in one benignant glow—
Crowned conscience, tender care,
Justice, that answers every bondman's prayer,
Freedom where faith may lead or thoughts may dare,
The power of minds that know,
Passion of hearts that feel,
Purchased by blood and woe,
Guarded by fire and steel
Hath she secured what blazon on her shield,
In the clear Century's light
Shines to the world revealed,
Declaring nobler triumph, born of right?

V.

Foreseen in the vision of sages,
Foretold when martyrs bled,
She was born of the longing of ages,
By the truth of the noble dead
And the faith of the living fed!
No blood in her lightest veins
Frets at remembered chains,
Nor shame of bondage has bowed her head.
In her form and features still,
The unblenching Puritan will,
Cavalier honor, Huguenot grace,
The Quaker truth and sweetness,
And the strength of the danger-girdled race
Of Holland, blend in a proud completeness.
From the hemes of all, where her being began,
She took what she gave to man:
Justice, that knew no station,
Belief, as soul decreed,
Free air for aspiration,
Free force for independent deed
She takes but to give again,
As the sea returns the rivers in rain;
And gathers the chosen of her seed
From the hunted of every crown and creed.
Her Germany dwells by a gentle Rhine;
Her Ireland sees the old sunburst shine;
Her France pursues some dream divine:
Her Norway keeps his mountain pine;
Her Italy waits by the western brine;
And broad-based under all,
Is planted England's oaken-hearted mood
As rich in fortitude
As e'er went worldward from the Island-w
Fused in her candid light,
To one strong race all races here unite;
Tongues melt in hers, hereditary foemen
Forget their sword and slogan, kith and clan:
'Twas glory, once, to be a Roman;
She makes it glory now to be a man!

VI.

Bow down!
Doff thine Æonian crown!
One hour forget
The glory, and recall the debt:
Make explation
Of humbler mood,
For the pride of thine exultation
O'er peril conquered and strife subdued!
But half the right is wrested
When victory yields her prize,
And half the marrow tested
When old endurance dies.
In the sight of them that love thee,
Bow to the Greater above thee!
He faileth not to smite
The idle ownership of Right,
Nor spares to sinews fresh from trial,
And virtue schooled in long denial,
The tests that wait for thee
In larger perils of prosperity.
Here, at the Century's awful shrine,
Bow to thy Father's God and thine!

VII.

Behold! She bendeth now,
Humbling the chaplet of her hundred years:
There is a solemn sweetness on her brow,
And in her eyes are sacred tears.
Can she forget,
In present joy, the burden of her debt,
When for a captive race
She grandly staked and won
The total promise of her power begun,
And bared her bosom's grace
To the sharp wound that inly tortures yet?
Can she forget
The million graves her young devotion set,
The hands that clasp above
From either side, in sad, returning love?
Can she forget,
Here, where the ruler of to-day
The citizen of to-morrow,
And equal thousands, to rejoice and pray
Besids these holy walls are met,
Her birth-cry, mixed of keenest bliss and sorrows.
Where, on July's immortal morn
Held forth the people saw her head
And shouted to the world: "The King is dead,
But, lo! the Heir is born!"
When fire of youth, and sober trust of age,
In farmer, soldier, priest, and sage,
Arose and cast upon her
Baptismal garments—never robe so fair
Clad prince in old world air—
Their lives, their fortunes, and their sacred honor!

VIII.

Arise! Recrown thy head
Radiant with blessing of the dead!
Bear from this hallowed place
The prayer that purifies thy lips,
The light of courage that defies eclipse,
The rose of man's new morning on thy face!
Let no iconoclast
Invade the risin- Pantheon of the Past,
To make a blank where Adam stood,
To touch the father's sheathed and sacred blade,
Spoil crowns on Jefferson and Franklin laid,
Or wash from Freedom's feet the stain of Lincoln's blood.
Hearken, as from that haunted hall
Their voices call:
"We lived and died for thee:
We greatly dared that thou might'st be;
So from thy children still,
We claim denials which at last fulfill,
And freedom yielded to preserve thee free!
Beside clear-hearted Right
That smiles at Power's uplifted rod,
Plant duties that requite,
And Order that sustains, upon thy sod,
And stand in stainless might
Above all self, and only less than God!"

IX.

Here may thy solemn challenge end,
All-proving fact, and each discordance die
Of doubtful augury,
Or in one choral with the Present blend,
And that half-heard, sweet harmony
Of something nobler that our sons may see!
Though poignant memories burn
Of days that were, and may again return,
When thy fleet-foot, O Huntress of the Woods,
The slippery brinks of danger knew,
And dim the eyesight grew
That was so sure in thine own solitudes—
Yet stays some richer sense
Won from the mixture of thine elements,
To guide the vagrant schemo,
And winnow truth from each conflicting dream.
Yet in thy blood shall live
Some force misspent, some essence primitive
To seize the highest use of things;
For Fate, to mold thee to her plan,
Denied the food of kings,
Withheld the udder and the orchard fruits,
Fed thee with savage roots,
And forced thy harsher milk from barren breasts of man!

X.

O sacred woman—form
Of the first people's need and passion wrought—
No thin, pale ghost of thought,
But fair as morning and as heart's blood warm,
Wearing thy priestly tiar on Judah's hills,
Clear-eyed beneath Athen's helm of gold;
Or from Rome's central seat
Hearing the pulses of the continents beat
In thunder where her legions rolled;
Compact of high heroic hearts and wills,
Whose being circles all
The selfless alms of men, and all fulfills;
Thyself not free, so long as one is thrall;
Goddess, that as a nation lives,
And as a nation dies,
That for her children as a man defies,
And to her children as a mother gives,
Take our fresh fealty now!
No more a Chieftainess, with wampum-zone
And feature-cinctured brow;
No more a new Britannia, grown
To spread an equal banner to the breeze,
And lift thy trident o'er the double seas;
But with unborrowed crest,
In thine own native beauty dressed,
The front of pure command, the unflinching eye, thine own!

XI.

Look up, look forth and on!
There's light in the dawning sky;
The clouds are parting, the night is gone:
Prepare for the work of the day!
Fallow thy pastures lie
And far thy shepherds stray,
And the fields of thy vast domain
Are waiting for purer seed
Of knowledge, desire and deed,
For keener sunshine and mellower rain.
But keep thy garments pure;
Pluck them back with the old disdain
From the touch of the hands that stain!
So shall thy strength endure.
Transmute into good the gold of gain,
Compel to beauty thy rude powers,
Till the bounty of coming hours
Shall plant on thy fields apart,
With the oak of toil, the rose of art.
Be watchful, and keep us so;
Be strong, and fear no foe;
Be just and the world shall know!
With the same love love us as we give:
And the day shall never come,
That finds us weak or dumb
To join and smite and cry
In the great task, for thee to die,
And the greater task, for thee to live!

Overland Chat.

[Written for the PRESS by MARY MOUNTAIN.]

When we first trudged through the streets of Chicago, we began to say, "Why, it seems like San, Francisco, don't it?" Only the air is so smoky and dirty and murky, it don't seem good to breathe, and how it shuts out the distance! Ten blocks away everything is dingy and obscure.

And how funny the street cars look, open at the sides, and some are entered at the sides, with seats ranged across instead of lengthwise. Many of the wagons, trucks and carriages look quite different from ours, and we notice that nearly everybody carries an umbrella, and needs it very often, too, in the course of the day, for the pelting showers come down almost without warning.

Passing through the burnt district, we found several vacant lots with ruins, almost as the fire had left them, and at the railroad station, so little has been rebuilt, that we found a waiting and ticket room much smaller and rougher than an ordinary farm kitchen. From Chicago to Titusville, Pa., we passed through the lake shore country, and had expected to find it "all slicked up" and reposing in a sort of elegant leisure. So we were disappointed, and especially with the first farming country eastward of Chicago, where stumps, swamps and the "ragged edge of despair" were most noticeable.

Through Ohio the farms look better and as if the owners take agricultural papers and save up egg money for paint and whitewash. We saw very little stock and none better than the average in California.

Titusville

Was our next stopping place, and if the man in the moon should drop down there with a human nose, he would need to ask no question about its leading industry, for the air is full of it, and the new comer will soon "take it in at the pores" and smell as good as anybody.

The relatives we came here to visit are old settlers, and years ago had told us of the oil that floated on the creek, and how it was sometimes soaked up in a blanket, wrung out and used as an excellent remedy for rheumatism, also as an occasional make-shift for light and for lubricating. There is evidence that some former race knew of this oil and collected it in pits dug along the river bank, and in many of these pits large trees have grown, perhaps generations of trees since.

The Unknown Race "Struck Ile."

Mr. Drake was the lucky and famous man who bored the first well and pumped the first oil in this region, and his old derrick, pump, etc., have been sent forward for the Centennial exhibition.

Much more remarkable wells were soon struck, some bursting out with terrific explosions that sent oil and gas high in the air, and catching fire from the engines immense damage was done before people learned how to control these dangerous elements.

Titusville is in three parts, the beautiful, clean and green, where oil princes live in big, handsome houses, and plenty of other people in common cottages; the business section, where merchandise and oil stocks are offered "cheap for cash;" and the oil soaked region by the river where you will find eight refineries, paraffine works, color works, acid works, machine shops and the most enormous tanks holding 30,000 barrels of oil each.

Measuring one of these tanks, it was found to be 100 feet in diameter and 20 feet high, made of boiler-plate iron riveted together. And here are the iron pipes that bring oil in from the different districts; 12 or 15 of them cross one bridge, some of them 15 miles long, and the oil is forced through them by huge steam engines located at the wells.

The big kettles holding 3,500 barrels each are another curiosity, for the intense fires are kept up by gas escaping from the oil, and the town is also lighted with gas from the wells in the hills.

It is always considered a good joke to talk of

Setting the River on Fire,

But the good folks of Titusville have reason to pray that no one will try that joke on their river, for they know already how well it will burn. The town has 13,000 inhabitants, and the daily product of oil is about 24,000 barrels.

At Pleasantville, six miles up in the hills, our friends took us to see the boring of a new well; also to see the best yielding well in the place, and we crept up on the greasy derricks to look at the steady black stream that would fill a three-fourth inch pipe, and is worth to its owner about $1,000 per week. The owner is a rough, crude looking man, and with the help of his Irish wife does all the work and keeps down the expenses, so they will soon have a fortune for those ragged little children we saw in the shanty close by the well.

Throughout the oil district the average yield is slowly diminishing, and hundreds of wells are abandoned. To bore a new one takes 20 days and costs some $2,000, and men are constantly hunting for new districts as the old give out. When a well goes dry the derrick is left standing, and in some districts there were more than I could count. A barrel factory turns out 1,000 barrels per day, made from oak wood cut in this vicinity.

The crude oil is now worth $2.18 per barrel—was once as low as 25 cents, and at that time the grocers of this vicinity were in the habit of giving to their regular customers all the oil they could use—and the best refined oil has been sold at five cents per gallon.

Our trip to Philadelphia through the

Lehigh Coal Region

Was full of interest, not only on account of the wonderful scenery, but the immense amount of business along the many iron roads was a rich surprise for us, and took away the very last rag and remnant of our California brag. We fairly turned pale as we whispered so that no one might hear—"Do you think California ever will show so many big towns that make no fuss over being big and doing such a perfectly awful rush of business?" Market street in San Francisco seems busy, but does not begin to give that tremendous impression of vast business operations which struck us so forcibly during one day's ride in the old Keystone State.

Home Made Ornaments.

A lady writes the *Floral Cabinet* that it does not need wealth to make our houses look pleasant with fancy ornaments, for if we use a little head and hand work we may have a great many pretty ornaments that you could not purchase, nor anything one-half as pretty, and as I have received instructions through the columns of the *Cabinet* about these things I will tell what little I can about them, hoping it may be useful to some one.

A nice tidy can be made by taking red-ribbed stockings and cutting them in about two inch squares and crocheting them together with insertions of green fingering yarn. Of course you can make it whatever size you wish. Pieces of colored paper cut in squares of about three-quarters of an inch, and doubled three-cornered twice, and sewed on cardboard or pasteboard evenly and as closely together as convenient, and then varnished, make pretty boxes or picture frames.

A very pretty lamp-mat can be made by taking 18 brass rings, and covering them with fingering yarn of any color; then sewing them together on four sides and across the rings and the diamonds which the rings make when sewed together, string white glass beads on wire, put two strings in one ring and diamond, then put fringe around it, and it is finished. I omitted to tell the size of the rings. They are preferred about as large again as a finger ring. By placing the rings together on a table you will see how to place them so as to make the mat round.

You can easily make a comfortable chair by following these instructions: The head of a barrel is knocked out and fastened half way down, the shape of the back and arms chalked out first, and then sawed carefully; after that some coarse canvas or old stuff is tacked loosely on, and stuffed with horse hair or wool; a cushion made for the seat of the same, and the whole covered with bright colored chintz, and it finishes up a chair by no means to be despised.

An hour-glass table can be made with little difficulty by taking two round slabs, fastened at each end of the small post or leg, and covered with chintz, and with two or three pockets hung around, are so handy for spools of thread and other working material.

Another lamp mat is cheaply made, in fact can be made with little or no expense, by taking a cord about a quarter of an inch thick, and about a yard and a quarter long, and covering it with yarn, and sewing it in a round flat mat, then take an old carpet slipper, or slippers, and ravel them, and then take this yarn and sew it in on the edge of the center you have before made in loops; or you could take yarn of old stockings, but that out of slippers is preferred, as it is nicely clouded.

Another ornament is made in the shape of a moss box, as follows: Take a man's old straw hat and rip three or four rows of braid from it, then fasten the ends on firm, and sew a handle on it of pasteboard in the inside of the crown, then line it with white paper and cover it with moss.

A pretty transparency for the window is made thus: Take a pin and prick on white paper the shape and depth of a cross, surrounded with moss, then place this between two panes of glass and bind together with ribbon.

Germany's Greeting.

On Tuesday, the Fourth of July, in Washington, Mr. Csdwalader, Acting Secretary of State, presented Mr. Schlager, German Minister, to the President for the purpose of delivering an autograph letter of congratulation from the Emperor of Germany. Mr. Schlager in presenting the letter stated that he was instructed by his Majesty to deliver upon the Fourth of July to the President in person an autograph letter of congratulation upon the occasion of the Centennial anniversary, and wished to add his personal good wiahes for the United Ststea. The President briefly replied, assuring him of hia satisfaction in receiving this evidence of good feeling on the part of his Majesty, that his kind expresaiona for the United States were fully appreciated, and that the letter should be properly acknowledged. A translation of the letter ia as follows:

William, by the grace of God Emperor of Germany, King of the Prussias, etc., to the President of the United States of America—GREAT AND GOOD FRIEND: It has been vouchsated to you to celebrate the Centennial festival of the day upon which the Great Republic over which you preside entered the ranks of independent nations. The purposes of its founders have by a wise application of the changes of history and the foundation of nationa, and with an insight into the distinct future, been realized by a development without parallel. I wish to congratulate you and the American people upon this great occasion; and this affords me so much the greater pleasure because since the Treaty of Friendahip, which my ancestor of glorious memory, King Frederick, who now rests with God, concluded with you, an undisturbed friendship has continually existed between Germany and America, and has been developed and strengthened by the ever-incressing importance of their mutual relations and by an intercourse becoming more and more fruitful in every domain of commerce and science. That the welfare of the United States and friendship of the two countries may continue to increase is my confident hope. Receive the renewed assurance of my unqualified esteem.

WILLIAM.

Countersigned, VON BISMARCK.

Berlin June 9th, 1876.

YOUNG FOLKS' COLUMN.

A Visit to a Chinese Joss-House.

[Written for the PRESS by MRS. GEORGIE, D. S.]

"Oh! grandfather, its Floy that got the budget of news from the new Chinese joss-house," ssid Kste. She stuck closer than death to that poor old Chinaman. She and ———, the laughing black eyea, reated miachievously on me. "Well, never mind, Misa Katie," I answered, "Floy and I, perhaps have gained a little more solid information in regard to the Chineae than some others I could mention, even if we did besiege the old Chinaman with questions, I am sure he gave it very willingly, and seemed proud to have white lady visitors," returned Florence.

"To be sure he was," said grandfather, "and little sun-beam and I intend to make his highness another visit before long." "And to see the little aure enough China baby, won't we grandfather?" was the eager return. "Indeed we will," was the responae, as he stroked the golden curls that rested on and mingled with the long silver white beard on his bosom. It is well worth a visit, I think; and ia quite a pretentious building for so small a population as Merced. Although every town and village in California has its Chinatown adjacent, Merced city being situated on the railroad, has a much larger one than is usually found outside of a large city. But come Florence, I am getting impatient to hear something "about that budget of information they tell us of." "I cannot answer for the information, but I can for a very pleasant day, and a very interesting visit to the Chinese temple." "Well, then, at any rate, let us have your version of the new Chinese temple."

"To begin then," said Florence, playfully, "As little Virgie says, we all went, Mamma and all. Pasaing through the narrow streeta of Chinatown, lined on either side with small housea, consisting of market houaes with their stalls of all kinds of Chinese viands, of fish, clams, decayed vegetables, and all manner of vile smelling produce, interspersed with stores, laundries, and eating houses, we hurried on through the crowd of loungers idling at the doors of their gambling and eating housea, amid the sickening odor from their opium pipes, until we reaohed the suburban temple. Here we found a square building, fancifully decorated on the outside, acoording to the general style I suppose, with statues, flags and curiously oarved ornaments of various designs. Intelligible to them I presume, although so enigmatioal of us. We were met at the entrance to the temple by an old fat Chinaman, whether pope, prelate, or priest, we did not know, I am sure, but he waa undoubtedly keeper of the gods.

The entrance is through a large oriental door into a sort of a vestibule divided from the main building by a partition of upright boards, elaborately painted and varnished. Before this partition is a high shelf or altar, on which was a censer dish, with several tall gilded joss-sticks, stuck in the white sand with which it was partially filled, and on either side of this, two tall candlesticks with colored candles. All were burning, with several paper lanterns, fancifully painted in birds and reptiles. Each side of the door, seated in state, were the gods—at least two, in their imitation niches. They are amall atatues, of from three to four feet in hight, made of a kind of plaster of paris, dreadfully painted, notwithstanding the exact image of a very ugly Chinaman. 'A kind of a brass or copper color highly tinted with vermilion black and brown,' I suggested. 'And those two little imitation nichea, Florence apeaks of, are nothing more than square boxea ornamented in gold and silver tinael, the drapery being of ailk and aatin fancifully arranged, in which the goda are seated with a number of tapera and incense aticks placed as footlighta at their feet."

Florence continued. "The entrance to the inner chamber is through an opening on either side of the partition, which ia a large squsre room decorated with all manner of fanciful devicea. At the further end is an elevation, something like our pulpits, on which the principal gods are seated on an estrade under a auspended canopy of royal silk, embroidered in gold and ailver tinsel."

"I auppose they represent the three defunct emperors, Fo-hy, Shin-noong and Hong ty, who reigned in the fabulous part of Chinese history in the remote agea, so many thousand years before ours," remarked grandfather.

"More likely," I rejoined, "they repreaent the last three of the five aovereigna that succeeded them, about the time of the Chow dynaaty, 1,000 yeara before Chriat; Yaon, Shun and Yu, whose race atill sat upon the throne at the time of Confucius, 550 yeara B. C. Historical facts prove that before the age of Confucius the annals of Chinese history are fabulous and uncertain. Confuciua himself admita that it is almost impossible to credit those remote ages. Most Chriatian writers contend that Chinese history only commences to assume an appearance of probability about the time of the Chow dynasty. Thus they place Yaon, Shun and Yu cotemporaneously with the three patriarchs, Abraham, Isaac and Jacob. And in the Shooking of Confucius there is an account of an extensive flood which took place in the reign of Yaon, which appears to be derived from a tradition concerning the Mosaic deluge, and thua they identify Fo-hy with Noah."

"Well, let that be as it may," said grandfather, "Chinese history is so aullied with fable, auperstition and uncertainty that it is hard to come to a right conclusion."

"Yes," I anawered, "the Chinese love for the ancient and marvelous is so great that their national vanity has handed down from generation to generation their traditions filled with superstition, demons, geniis and all manner of impossibiltiea, until it has induced them to assign to their country such a high degree of antiquity that it exceeds all bounds for belief."

"Dear Florence," I said apologetically, "here we have been talking regardless of your interruption."

"Oh! I am sure I was as interested aa you were," waa the ready answer.

"Then I will beg you to proceed," said grandfather.

"The Chinese interpreter told us that the goda had been sent from China, that the emperor himself had the ordering of them, he himaelf having full power to order such doities as he deaired his people to worship. The emperor ranks high among their idols, only heaven and earth and his deceaaed ancestors are considered his superior. Before the three gods stands the altar, on which is another censer dish with lighted joss-sticks, whose ashes are caught in the diah as they fall, before which a large vase of most beautiful artificial flowers is placed, and on either side of this is a square transparency of white silk, gorgeously painted in flowera, birda and fishes, and lighted, as the others within. Juat behind the censer is an urn, with lighted tapers burning at its base. On all sides are devices of all conceivable ahapes, fancy paper, lanterns, gaudy flags representing the signs of the zodiac and different constellations, with the sun and moon in all its changea; others of variously colored silk in figures of dragona, bears, panthers, foxes and all manner of hideous caricaturea."

"The strange, unearthly fumea emitted from these cenaer sticks and burning candles was anything but enchanting," joined in Kate.

"We did not see them at their devotions," I observed, "but are told that the oblations offered at their shrines are presentod amid the fumes of incense, the effulgence of sparkling tapers and lighted tinsel. The sound of the gong, their one string violin and other musical instruments are in keeping with the place. Their offering consists in all kinds of eatables, such as baked fowls and other meats, cakes, fancy candies, wine, etc. These are thought esaential in order to propitiate their deities. It is well calculated to remind one of the chamber of imagery erected by the idolatrous Hebrews, 'As a chamber wherein every form of creeping thinga, and abominable beasts, and all the idols of the house of Israel were portrayed upon the walla round about.'"

"But my little starbeam has gone to sleep, and the last word she whispered in my ear was, 'Grandfather, we will go and see the pretty little sure enough China baby, with the red cap and blue tassela. Won't we?'"

GOOD HEALTH.

Fruits.

A writer in the New York *Tribune* constructs an essay on the subject of fruits, from which we compile the following timely information. There is nothing very novel in the statements, but they will be useful and intereating to many:

Fruits may be distinguished from vegetables by the circumstance that they contain hardly any nitrogen or plastic material, while vegetablea are valuable mainly on account of the starch and albumen which they yield, and also by the fact that, when ripe, fruits require no cooking to render them palatable and digestible, while vegetables do. Fruits may be regarded not so much nutrients as agreeable luxuries, for nowhere are they a food on which the life of man depends, though they are eagerly sought after in all climates. In hot climates they occupy a higher position as foods than in temperate regions, since they do not greatly produce heat, and yet furnish juicea of an agreeable flavor which atimulate the sense of taste and cool the blood. Fruits consist essentially of two parts, the juices and the cellular parts in which the juices are contained; the juicea are eaaily digestible, but the cella are not, and are, therefore, when possible, thrown away. All fruits contain much more fluid than aolid matter, and supply augar, acids, aalts, and the various volatile essences on which their flavor depends.

The grape was doubtlesa one of the earliest fruits esten by man. It waa cultivated by the oldeat civilized Eastern nations, whence probably it was carried into Europe, as it does not grow there wild. It abounded in Syria and Persia. The Romans planted it on the banks of the Rhine, and toward the close of the Roman power in England we find it cultivated in several parta of that conntry by the Anglo-Saxons; afterward, while monasteriea exiated, few of them were without their vineyard. In Switzerland and other parts of Europe, ripe grapes are considered a specific for dyspepsia, consumption and some other complaints. Their medicinal effect is supposed by aome to be due to the bi-tartrate of potash they contain. Grapes contain sugar, gum, glutinous matter, malic, citric and tartaric acida, potash and lime in proportions varying with the kind of grape and the different conditions of aoil and climate in which it is grown.

Applea contain sugar, malic acid, gum, woody fiber and water, together with some aroma on which their peculiar flavor depends. Though chemical analyaia may ahow much less nutriment in applea thau in many other fooda, there is much available nutriment in them, and the vital analysis in the digestive apparatua uses them up cloaely. Peara were brought from the East by the Romans, who cultivated them with care. The pear is a hardy tree, and longer lived than even the apple. The beat varieties of the pear rank deservedly among the most delicioua of fruits. In composition the pear does not differ very greatly from the apple. The peach is a native of Persia, and was called by the Romans Persica. Both in the fresh and preserved state it is a very favorite dessert. It contains sugar, gum, pectine, malic acid and water.

The orange has been called the universal fruit of commerce, and, though the product of tropical and semi-tropical climates, it may be had fresh in every region of the world, and at almost every season of the year. The agreeable sub-acid of the orange rendera it one of the most agreeable, cooling and wholeaome of fruits, and the essential oil in the rind is aerviceable to the cook in giving flavor to many dishes. Orange flower water, made from the blossoms, is a delicious anti-febrile beverage, and a tea made of the leavea of the tree is highly valued as a drink for yellow fever patients. The orange pulp containa citric acid, malic acid, mucilage, albumen, sugar, citrate of lime, and water. The proportions of these constituents vary with the degree of ripeness of the fruit. The lemon belongs to the same family as the orange, and is highly valuable for its refrigerant and anti-scorbutic properties. Its constituents are citric and malic acid, gum, bitter extraction and water.

BORACIC ACID IN THE TREATMENT OF RING WORM.—Surgeon Mayor Wataon has lately uaed boracic acid with great success as an external application in the treatment of vegetable parasitic diseases of the skin. In the different forms of the tinea (T. tonsurans and circinata) and in that very troublesome form of the diaease which effects the scrotum and the inner side of the upper parts of the thighs of many Europeans in India, its application acts like a charm. A solution of a drachm of the acid to an ounce of water, or as much aa the water at ordinary temperaturea will take up is employed. The affected parts should be well bathed in the solution twice daily, some little friotion being used, and the solution allowed to dry on the part.—*Am. Jour. Med. Science.*

FOOD FOR GOUT.—Dr. Cheyene said, nearly 200 years sgo: "Three pints of milk and six ounces of bread, daily, are the only certain remedies for gout. Let two people be chosen, as like as possible, both suffering from tho same cauao. Give the most promising patient the moat approved nostruma, etc., and let the other have only the simplest attention, but placed under a strict diet, the lightest and least, milk and seed diet, and I will veuture reputation and life that my method cures soonest."

DOMESTIC ECONOMY.

A Home Made Recipe Book.

A lady correspondent of an English agricultural gazette says: In view of the carea and responsibilities of housekeeping, a young woman cannot begin too early to cultivate an acqusintance with culinary art; and there is no better way of acquiring and retaining this knowledge than by setting up a private recipe book, in which to jot down all tried and proved recipes, worthy of such distinction, that may be met with either at the family board, or at the table of a friend. I began the practice when about 12 years of age, at the instigation of an experienced matron, herself a model of order in everything relating to housekeeping, and snbaequent observations has often made me look back on her friendly counsel with respect and gratitude, and to say to myself that even in worldly things, "a word apoken in aeaaon, how good is it." That these remarks msy be equally uaeful to some young aspirant to prospective duties, I proceed to give a few hinta to those who may feel inclined to adopt the plan.

First, then, let extreme aimplicity of arrangement characterize the atart. In the first fluah of the new idea it may be very amusing to divide and classify, but as the novelty wears off these elaborate devices become irksome, and may tend to disgust altogether. All that is wanted is a blank ruled book of a suitable aize, and after numbering the pagea and writing the name of the owner and the date, it is ready for work, which may be proceeded with as follows:

Never take a recipe on trust, or even on the recommendation of a friend; try it before entering it in your book—you will thus be saved the pain of finding out, too late, probably from an error in diction, that it doea not turn out well, when by adhering strictly to the rule, to enter nothing till yon have tested it, you know at once that all your recipes can be depended on, and that there is no mistake about them. How often in reading a recipe in a cookery book, you think that looks promising! I wish I knew if it would answer. With your own book you need not be at such a loss; you have there confidence that is not misplaced, and confidence in what you are about is generally half the battle. Therefore, we would say—write down everything you can make yourself, from a water gruel to a *pate de foie gras;* and with your book and your knowledge, you msy take the world, broadside on, and when other trades fail, you can set up a restaurant, or go out as *chief de cuisine.*

Some recommend the plsn of dividing the book into departments, as we aee in works on cookery—fish by itself—soup by itself, etc.; but as I said before, I think that all such divisiona interfere with the simplicity of arrangement, which is the surest means of encoursgement in what might otherwiae become distasteful. In preparing a work on cookery for the press, of course it ia absolutely necessary that everything should be claasified; and as in that case the whole ia completed at once, it becomea comparatively easy. But in a private book—added to during the most part of a lifetime—it is very different, and there is no better plsn than to jot down recipes as they turn up, trusting to the index and the numbering of the pages to find what is wanted at a glance.

How to Cook Potatoes.

There are achools of cookery under the patronage of the English government, and that our readers may know how practical the teaching is, we extract from one of the professor'a lectures the following instruction concerning potatoes:

"Let me teach you how to boil a potato. Go home and practice the boiling of a potato until you have done it as perfectly as possibly can be. Leave your saucepans and atewpans and go into the back lanea and teach the poor how to make the most of the food which God in Hia goodness has provided. This is the religion of common life. Alwaya remember that the best part of the potato is nearest the skin. Select your potatoes all of the same sort, and as nearly aa possible of the same size. They must be all of the aame aort, because different varieties require different degrees of boiling; they should be of the aame size so as to be cooked in the aame time. Thoroughly clean your potatoes by scrubbing them with a hard brush. A knife must never touch them, not even to remove the eyes. Pack them tightly in a saucepan so as to cover them with the smallest quantity of water. Always use clean rain water for cooking, if you can obtain it. Cover with water, adding a teaspoonful of salt to a quart of water. Bring them to the boil. Set them aside to simmer; potatoes are generally spoiled by quick boiling. Try them with a thin bone akewer. When nearly done finish the cooking by boiling up quickly for one or two minutes. Pour away all the water. Partly remove the lid to allow the moisture to evaporate. Give the saucepan one or two shakes. Lay a clean white cloth in a wooden bowl, peel the potatoes quickly, and send them to the table."

HOME MADE CURRANT WINE.—To one quart of currant juice add three pounds of brown sugar with water enough to make one gallon of wine. Set it in a shady, cool and dry place, open to the air until after fermentation ceasea. Then draw off and set in close package or bottles. To obtain the juice plaoe the currants in a preserve kettle and bring to a scald, when the fluid can be readily pressed out.

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Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, July 15, 1876.

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The Week.

This is the time of plenty. The city sidewalks, on the streets devoted to the trade in produce, are covered thick as though some one had shaken a tree on which fruit grew in baskets full, or the plow had turned up bags of vegetables plenty as stones on Eastern fields. "No one need lack for something to eat if he has any money at all," cried out a produce merchant to us as we passed him standing knee deep in baskets of peaches, apricots, plums, figs, apples and pears, while all around were piled, shoulder-high, brown bags from which peeped corpulent, bright skinned potatoes, shining, fat cheeked onions, crisp cabbages, blood-red beats, and golden carrots and beyond were spread abroad the royal purple egg plant (ostrich size), ponderous poppers and all the sweet and savory jewels of the garden. No one need lack for something to eat if they have ought to buy with. It is the eaters' harvest time and glorious healthy food lies on every hand. It is the beneficent gift from the country to the city and we trust that large bags of yellow gold will tell to the country the city's appreciation. New life, health and strength will come to the city if tired bodies and sluggish minds are but permitted to enjoy the rich, refreshing feast which the country now so lavishly bestows.

SENATOR MORRILL has been sworn in as Secretary of the Treasury, vice Bristow, resigned.

War and Wheat.

The Eastern question has broken out in turmoil and warfare. There was great effort for peace, and English critics expressed no great fear of war. So far indeed the conflict has been but preparatory, and no general and organized warfare is announced. The outlying provinces of Turkey, which make a common cause against the central power, have not yet succeeded in combining their forces. It must be acknowledged, however, that the war cloud is much thicker than it was a few weeks ago.

Of the possible effect of this warfare, should it become such indeed, we have spoken before. Aside from the general stiffening of prices for food supplies, which is the concomitant of war, there will be in this case an especial influence exerted upon the available grain supply of Great Britain by the cutting off of the shipments from the southern ports of Russia. Should this ensue, there will be a demand for all the wheat which can be possibly supplied from America, and as a natural result a considerable improvement in prices may be expected. What the chance now is for the coming of a contingency of this kind, it is difficult to decide. It is wholly a matter of doubt and individual action must be undertaken on individual judgment. Although there is now a show for war, no one can tell how soon diplomacy may sheathe the sword.

Whether it be because of the war possibilities or for other reasons, there is noted a firmer holding of wheat both in this market and in the English markets as we are informed by the telegraphed report from Mark Lane. The opinion seems gaining ground here that more than current rates must be paid to secure the grain. It is reported that considerable arrangements is being made for storage by grain growers in this State.

We are informed from the interior that there has been some loss in the wheat fields from the beating out of the winds, and that some fields which were confidently put down for 60 bushels to the acre, thresh but 30 bushels. It will be difficult to tell what allowance must be made on former crop estimates for unrealized expectations, but it will be something doubtless. We print in our market columns this week some reports concerning the wheat crop in some of the prairie States, in which, it appears, there have been influences which will reduce the yield somewhat below last year's amounts.

In this connection we would mention a table which is printed in another column, giving the English cable quotation for wheat at intervals during each month of the last harvest year. From this table the graingrower can learn the course of the English market during the past year better than from any written description. By preserving the table for reference, many interesting and useful contrasts can be drawn from time to time, between past and present prices.

Flax.

EDITORS PRESS:—Having read your articles on flax culture for Jaunary and February, 1874, and also several more recent, I concluded to try about 25 acres. The land is strong adobe, and remained wet till the beginning of March, so that the seed was not sown till the end of March and beginning of April. It was well plowed, harrowed, seeded, harrowed and rolled. About 10 acres was rolled after first harrowing, as I thought the seed was getting in too deep. This piece is the lightest of any. The plant has grown from six to 14 inches and bloomed most profusely. It formed good capsules, with prospects of plenty of seed, but the heat of two weeks ago seems to have deprived it of sufficient moisture to fill the seed. I wish to know if there is any manufacturer on the coast that prepares the lint, and, if so, whether it would pay me to pull the plant to bale it. I enclose you a sample, so that you can form a better opinion.—T. W. WHITTINGTON, Middletwon, Lake county, Cal.

We are interested in Mr. Whittington's statement. We are sorry that his crop of seed seems to be cut off, because, as things are at present, the seed is the only part of the product which is sure of a ready market. Good seed is in constant demand in this city for the manufacture of oil. First-class seed, we are told, is worth three and a half cents a pound.

So far as we can ascertain there is now no establishment in operation in this State for the manufacture of the fiber, and we cannot assure our correspondent of any price for his crop for this purpose. If there be a manufactory of this kind it is beyond our knowledge, and we trust some one will inform us of it. There was talk of a linen factory a few years ago, but we do not know of the realization of the project. We look upon the growing of flax for the fiber as one of the coming industries of this State, and the field for it is magnificent. Every experiment in growing the plant will tend toward awakening attention and interest in the subject, and, we trust, ultimately lead to the investment of capital in what, it seems, must be a profitable venture.

There is now springing up anew a wide interest in the cultivation of flax as a farm crop through all the States. There seems especial reason for interest in the subject in this State, because of our immense consumption of bagging materials. Doubtless a few facts of the actual condition of the flax manufacture of this country will be of interest in this connection. A recent compilation of these facts is as follows: According to the census of 1870 there were 33 establishments in the United States making tagging, etc., from hemp, jute, tow and flax. In this manufacture there were but 7,000 tons of flax and tow used, and 12,000 tons of hemp and jute. The product shows not a yard of linen goods. The flax was chiefly used in Illinois and Missouri, the tow in Ohio, the jute in New Jersey and the hemp in Kentucky. New Jersey imported $25,000 worth of foreign flax and jute, and New York $41,000. There are now probably double the number of flax manufactories of all kinds in the States that there was in 1870. One linen manufactory, the only one, is just experimenting at Stark mills, Manchester, N. H. Several manufactories of shoe thread in Massachusetts, a crash manufactory in Philadelphia, the Messrs. Barbour Bros.' flax thread manufactory at Paterson, N. J., employing 500 operatives, but importing all their material. Several new flax and bagging mills have started in Ohio, Indiana, Kentucky and Illinois, one or two of which are using a finer fiber than that commonly used in bagging manufacture.

Thus it appears that in the factories of the linens, threads and bagging the lint used was for the most part imported. This shows that the producers of the raw material are more to blame than the capitalists. We doubt not that the new agitation of the subject at the East will induce a planting which will supply the manufacturers' need in the future.

The notice which we made last winter of the enterprise of some Oregon farmers, in engaging to furnish a certain amount of flax fiber on the condition that a man would bring the necessary machinery and begin the manufacture, is one of the most straightforward and promising ways of making a start of which we have heard. We doubt not that other men with the skill and capital requisite could be induced to come to this State, if a number of farmers would unite and make similar arrangements to produce the raw material. We shall be glad to chronicle the success of an enterprise of this kind.

The Army Worm.

We hear of the army worm in several localities in this State. The latest announcement is from Tulare county, where they are reported to be "mowing an alfalfa field at a rapid rate." This insect is an old and ruinous pest. Its ravages on the prairie States have resulted in untold loss to the farmers. Its progress in this State should be hedged about by as many barriers as possible. Until the present year the method to which the moth resorted to deposit the egg from which the worm was hatched was unknown. During the present year the method has been discovered by Prof. Riley, State entomologist of Missouri. He undertook the methodical investigation of this subject, and at the meeting of the St. Louis Academy of Science, on May 1st, was able to announce that his researches had been entirely successful. Guided by the structure of the ovipositor, Mr. Riley concluded that the moth would naturally secrete the eggs where they could not be easily seen. This conclusion was afterward verified by direct observation, the author having witnessed the mode of oviposition on blue grass. The eggs are, as he surmised, secreted, being either glued in rows of from five to 20 in the groove which is formed by the folding of the terminal grass-blade, or else between the sheath and the stalk. The eggs are white, slightly iridescent, spherical, .02 inch in diameter. They are fastened to each other and to the leaf, and covered along the exposed portion by a white, glistening, viscid substance. As they mature the color becomes yellowish, and by the seventh day the brown head of the embryo shows distinctly through the shell. The larva emerges from the eighth to the tenth day, is 1.7 millimetre in length, dull, translucent white in color, with a large black-brown head, and is a loopor, the two front pairs of abdominal prologs being atrophied. On account of its extremely small size and of the color resembling the pale bases of the grass-stalks near the ground, it is almost impossible to find them even where they are numerous. The one great economical result of these researches is the indicating of an effectual mode of destroying the army worm—viz., burning the eggs with the stubble.

So long as the practice of burning the stubble continues among our grain growers there would seem to be no great danger of wide scourges from the army worm in this State. Where it appears in different localities perhaps nothing better can be done than to prepare the fields for burning over, because one thorough destruction of the eggs and larvæ may give freedom for a long time.

POINTS FOR THE RURAL PRESS. — Our business correspondence teems with encouraging notes of the satisfaction of our readers with the RURAL PRESS. We have space but for one or two, to show that we value our readers' good opinions. N. W. B., writing from La Gratiosa, says: "I have been taking the RURAL PRESS about two years, and I don't see how any farmer can afford to do without it." M. J. H. writes from San Mateo: "We are liking the PRESS very much. It furnishes *reading for us all.*"

M. G. KELLOGG, M. D., has become an assistant in Dr. B. J. Smiths' Smithsonian medical and phreno-physiological institute, No. 635 California street, S. F.

What Can be Done with Straw?

EDITORS PRESS:—I find since I came to California that it is the practice among farmers to burn all the stubble off the ground and burn up all the straw from the stackyards. Now, will not this way of doing business impoverish the land? They claim, however, that the ashes will do more good than the straw, and that the straw will cause the grain to dry up. Now, I have not been here very long, but it seems to me that it is a wrong idea. I think it would be better to turn the stubble under and pile up the straw and when it rots haul it out and scatter it over the fields. In this way you would somewhat compensate for what you take off. Now, will some of your numerous readers who have had sufficient experience in the matter give us their experience through your valuable paper, as this is a question in which we are all interested. I would like the opinion of those who are capable of enlightening us on the subject.—MISSOURIAN, Colusa, Colusa Co., Cal., June 26th, 1876.

We have frequently made allusion to this subject and pointed out the value there is in straw if used in certain ways. There are several reasons why straw cannot be used here according to the Eastern practice, and yet it has a value which we believe our farmers cannot always afford to overlook. Our correspondent asks: "Will not burning straw and stubble impoverish the land?" Of course he who draws two dollars from his pocket and returns nothing, will reach the bottom of his purse sooner than he who draws two but returns one before he draws again. In order to keep a bank account good a man must make deposits as well as drafts. The productiveness of the farmer's soil is his bank account. He starts with a certain fund. The constant disintegration of the mineral elements of the soil by the action of the air, the frost and the rain, added to the incoming of the volatile fertilizing compounds from the atmosphere, pay him an interest upon the original fund. His wealth consists, then, of his first deposit and the interest which accrues upon it. Now, if the farmer, in his productive effort, draws more from the soil than nature gives him as interest, he is reducing his capital. But if he adopts wise practice and restores to his soil an equivalent for that which is removed, he lays up strength for future requirement. This is the question abstractly considered.

Our correspondent says they tell him that the ashes are worth more than the straw, and for this reason they burn the straw and stubble. Now this is true in one sense and false in another. It is true because on some of our soils the straw will not rot, and it is said to do injury by making a light soil more light and more liable to dronth. Our correspondent thinks it would be well to pile up the straw and when it is rotted apply it to the land. If any means be adopted which will turn the straw into manure we have no doubt whatever that the return of the straw in that form will be as efficacious here as elsewhere, providing the soil be in such condition as to take manure with good results. We have shown, in a former issue of the PRESS, that the most practical and profitable use for the straw is to feed it to stock, because what they eat and what they trample upon result in a good manure, aside from the feed value of the straw. Practice has shown that where cattle can be kept in connection with grain farming the profit is satisfactory. It will not be until our system of farming is changed somewhat that we shall generally reap the rewards of this experience. There are cases where, under present conditions, there can be nothing done with the straw but burn it. We believe this is not the best practice by any means, and as our agriculture develops we expect to see straw burning done away.

We have said that in one sense it is not true that the straw is worth less than the ashes. We doubt if any one thinks that the small amount of mineral matter which remains in the ash can be of more value to the soil than the great amount of organic matter which is thrown off by the flames. And yet, comparative statement of the relative constituents of the straw and the ash may be new to some readers. The following is an average of the analyses of straw which are on record: Water, 14.4; organic matter, 80.2; ash, 5.4. It will be seen how small a part of the straw is returned to soil in the ashes. The organic matter which comprises so large a portion, and which, if properly decomposed would become plant food, is passed off in smoke.

Concerning plowing under the stubble, the objection raised must be the same as that against applying straw from the stockyard. The stubble does not have the same chance to decay in our dry soil as at the East where heat and moisture occur together and accomplish the work of decomposition, nor would the straw from the stock yard do to apply to our light soils unless it was thoroughly rotted. We have seen what is called "coarse manure" applied at the East with results which we should not expect to see here. We doubt not that what our correspondent's friends tell him about the effect of stubble and fresh stock-yard straw upon their wheat lands is the result of their experience and is correct for soils and conditions like theirs. We believe that as a general thing straw must be thoroughly made into manure before it will do to apply it to most of our wheat lands. Feeding it to stock accomplishes this result, and we have printed the figures of a farmer's experience with this practice to show the profit in it.

Our correspondent calls upon our readers to relate their experience with the use of straw, and we shall be pleased to receive communications on the subject. It is a matter of considerable importance to our grain growers,

Queries and Replies.

Dyeing Sheep Skins.

Editors Press:—You will oblige me and many others here, if you will put in the Rural a recipe for dyeing sheep skins the following colors, red, green, blue and orange.—Mrs. Henry Patison, Oakdale, Stanislaus county.

The wool should be first thoroughly washed to remove oil and gresse. Most generally a scouring liquor is prepared with one pound of soft soap and one pound of common soda (or half a pound of soda ash) in ten gallons of water, and the materisl to be dyed is thoroughly scoured through this wash. This is the only preparation that new wool needs before dyeing

Wool is always died hot; the liquor usually being near the boiling point. This necessitates dyeing in a boiler. Iron vessels should not be used, but copper, or copper with tin, are most generally employed. The dye stuffs, such as ground wood, are generally put into the boiler and the wool worked in the mixture, but it is cleaner to make a decoction and draw off the clear liquor for dyeing. The special colors desired by our querist can be gained by the following recipes, the quantities of substances named being right for ten pounds of wool in each case:

Red.—Work the wool half an hour in a bath made of one ounce of bi-chromate of potassa and one ounce of alum. Wash this out thoroughly with cold water. Then work for half an hour in a liquor made of three pounds of peach or lima wood; lift the wool and add an ounce of alum to to the liquor. Work in this for 20 minutes, wash in cold water and dry.

Orange.—Work the wool for 40 minutes in a liquor made with two pounds of sumach, three ounces of dry cochineal, one pound of fustic, eight ounces of tartar, and one pint of red spirits. Wash out this dye in cold water and dry.

Blue.—Work the wool for 40 minutes in a liquor made with two ounces of chrome, four ounces of alum, one ounce of tartar. Wash this out with cold water and then work half an hour in another liquor made with three pounds of logwood. Take up the wool, add an ounce of verdegris to the liquor. Work in this 15 minutes, then wash in cold water and dry. This makes a deep dark blue.

Green.—Work the wool for 15 minutes in a liquor made with five pounds of fustic, two ounces of argol, five ounces of alum. Take up the wool; add half a gill of indigo extract to the liquor. Work in this for half an hour and dry.

These recipes are laid down in the standard works on dyeing. If any of our readers have discovered easier or better methods in their home practice we should be plessed to hear from them.

"Canyon," not "Canon."

Editors Press:—Can you give any good reason for printing the word "canyon" without a circumflex, or without a "y," as you have done seven times in your article on Half Moon bay, in the number of June 24th? "Canon" is a good old English word, and has several different meanings, but it don't mean a canyon, and never did. The word "canyon" is comparatively a stranger in our language, having been adopted since the Mexican war. In Spanish it is always spelt with a circumflex, and it is so spelt in the appendix to Webster's unabridged dictionary, where it is also spelt "canyon," and Fremont is quoted as authority. Now your reason for printing it "canon" was probably because you had not a supply of circumflexed type; but in that case you have Webster's authority for inserting a "y;" and you cannot show any good authority, as I believe, for printing it "canon." It enriches a language to adopt new words from other languages, and the English has done its full share of borrowing. Indeed, a Frenchman once told me that the English was a "thief language." But if we must borrow, let us at least give the stranger words a fair chance, and not spell them so as to express what they do not mean. Editors and compositors ought to be the last men to introduce any more confusion into our language. We have enough already to addle the brains of every foreigner who attempts to study it. As you are about entering upon a new volume, which is to be enriched with "all the modern improvements," will you not make it one of your improvements to spell canyon hereafter with a "y." And not that alone—will you not recommend to your exchanges who are not supplied with circumflexes, to put a "y" into their "canyons," and thus express exactly what they mean?—Sherman Day, Tules, June 28.

Mr. Day is altogether right in the point which he makes upon us so forcibly. Hereafter we shall "spell it with a 'y.'"

A New Wheat Worm.—We learn from the proceedings of the St. Louis Academy of Science that Prof. Riley exhibited specimens of a worm that was just at this time devastating the wheat fields of parts of Kansas, and particularly of Dickinson county. It does not eat the blades, but attacks the heads. Specimens had been sent to him last week by Mr. John W. Robson, of Cheever, but in transit they had all eaten out and escaped from the box in which they were enclosed. On the way, however, they had moulted, and from the heads alone Prof. Riley had determined the species to be the *Leucania albilinea*, though the insect had never before been reported as injurious from the West. Other specimens, just from Prof. F. H. Snow, of the State University at Lawrence, and from Mr. John Davis, editor of the *Tribune*, at Junction City, proved the correctness of the determination. The species is generically allied to the common army worm, and may be popularly called the wheat-head caterpillar. As it had never till lately attracted unusual attention, too little was yet known of its habits to warrant any suggestion as to the best mode of destroying it.

Rattle Weed.

Editors Press:—I send you to-day a weed known here by the name of "rattle weed." It grows here in a few places on the meadow land, and when it is cut and cured in the natural grasses in making hay is very poisonous to horses. One man here lost a very valuable horse a few years ago, since which time I have heard of no cases of poisoning from it until yesterday, when four horses which had been fed over night on hay containing some of this weed were taken sick. The symptoms, as near as I can give them, were, first, a very profuse slobbering, followed shortly with extreme pain throughout the bowels and a kind of spasmodic convulsion of all the neck, breast and shoulders; the muscles of the neck contracting so as to draw the nose back nearly to the breast. These occurred about every three to five minutes, and seemed to increase in violence until relief was obtained. A mixture of a half pint of lard, three tablespoonfulls of syrup and one tablespoonful of H. H. H. Liniment gave almost immediate relief, and this morning they are all eating and seem to be doing well. Can you give me the kind of poison contained in the weed, and also what would be an antidote. By so doing you may help some of your many readers to save their horses should they be so unfortunate as to make hay of the "rattle weed."—H. H. Bradshaw, Paradise, Nevada.

Response by Dr. A. A. Kellogg.

The poison plant is the *Anticlea Douglassii*, with narrower, more grass-like leaves, but altogether similar in poisonous effect with the more common robust species with larger flowers found here, viz: *Anticlea Fremontii*, which has poisoned several children in California by careless people placing wild flowers in the hands of children, who at once put everything in their mouths. The Indians call it Death Camass, being sometimes mistaken for the edible Camass, (*Camassia esculenta*), which the form of the tunicated bulb much resembles, and are often found growing together. In flower the true Camass is known by the beautiful blue lily-like blossoms—whereas, these others have much smaller flowers, of white or greenish white, faintly tinged with yellowish—neither cattle nor their milk are often seriously poisoned when they crop it young.

Any oil, especially olive oil, is the best universal remedy in all cases of vegetable poisons. For example, night-shade enough to poison a regiment may be taken without serious harm, etc. Emetics to expel the poison are of course to be properly given and followed by any good demulcent, etc. Send for a sensible physician, who will advise as to the propriety of stimulants, such as brandy, camphor, or opium, etc., which are only to be cautiously used, and kept up until the disorder is got under normal fuctional control.

For stock, olive oil, or fat with camphor, or the like, if at hand, would be much safer than whiskey. For extensive convulsions, tobacco in some form is the best.

In Nevada.—"Our own correspondent," Mr. A. C. Knox, who has been associated with the business department of this paper since 1865, will soon visit Virginia City and other parts of Nevada.

Large Early Apricot.

Our readers will remember a note recently made of some apricots received from Pentland Bros., of Stanislaus county, which were a puzzle to our city fruit men, and which Mr. Fox, of San Jose, named the "Large Esrly." In order to pursue the matter further and enable our friends to compare their fruit with the apricot grown at the East under the name "Large Early," we have secured an engraving of the fruit as it is known to Eastern pomologists. By comparing their fruit which is grown under several names with this species known to be the "Large Early," our orchsrdists may be able to discard some of the aliases which Mr. Fox mentions and apply a term of general significance. The following accurate description will aid in identification:

Fruit. Size—medium to large. Form—roundish, oblong, compressed, projecting considerably on the side of the suture. Suture—deep and terminating in a projecting point towards the back or beyond the axis of the fruit. Skin—downy. Color—pale orange in the shade, fine bright orange red, and marblings or spots of deeper red in the sun. Flesh—pale orange, separating freely from the stone; juicy, rich. Stone—much flattened, oval, sharp on the front, perforated along the back, from base to apex. Kernel—bitter.

Tree.—Of vigorous growth, with large, broad oval leaves, tapering towards the footstalks or petiole, and with little ear-like appendages in place of glands. An abundant bearer, an old variety from France, and one of the very best early sorts known.



LARGE EARLY APRICOT.

The Rural in Santa Cruz County.—We are glad to say that we have in this county, at present, a good and worthy agent, who is attending to our business in a creditable and satisfactory manner. We allude to Mr. C. N. West, who is well and favorably known as a resident of Santa Cruz. We hope our friends throughout the county, will assist him as far as possible in his efforts to increase the circulation of agricultural literature, by renewing their subscriptions and speaking encouraging words, whenever they can do so consistently. We expect Mr. West to collect and present to the numerous readers of the Rural, many interesting facts concerning the county, from time to time.

On File.—"Farm Life," M. J. H.; "Notes from Copay," X; "Death of a Prejudico," M. F. W.; Querries from "Colonist" and E. R. S.

The building known as Castle Garden, New York, was burned on the 9th inst.

A Disastrous Reverse.

Just after we went to press last week the sad news was received from the Indian country, where Custer and command were fighting the Indians, that the gallant general and his whole command were cut off and annihilated. General Custer with his two brothers, his nephew and brother-in-law, seventeen commissioned officers and 300 regular troops, were all massacred by the fierce Sioux. The battle was fought on the 25th inst., 30 or 40 miles below the Little Horn. Custer attacked the Indian village of 2,500 to 3,000 warriors on one side, and Colonel Reno was to attack it on the other. Three companies were placed on a hill as a reserve. General Custer, officers and every man belonging to the five companies were killed. Reno retreated under the protection of the reserve. The whole number killed was 315. General Gibbons joined Reno. The Indians left the battle ground. It looked like a slaughter pen, as it really was, being in a narrow ravine. The dead were very much mutilated. This is one of the most terrible reverses that has befallen American arms in Indian warfare for many years.

Influence of Climate on Apples.—From the display of apples at the Centennial, the Germantown *Telegraph* draws a lesson of the influence of climate and soil upon the fruit. Speaking of the display from Iowa and Michigan, it says: A striking feature of these Western apples was their brilliant coloring. Most of the varieties were of the very highest character in this respect, much no doubt owing to the varieties selected or rather saved to this late period of the apple season, but yet not wholly, for even such a tame looking variety as we generally see it, the Rhode Island Greening, had a rosy tint on it. When we came to the Australian apples the absence of this color was remarkable. Out of nearly 100 kinds exhibited there was not one with a blush on its cheek equal to that on a simple Rhode Island Greening from Michigan. Some few had a slight glimmer. Northern spy, for instance, was a good deal bronzed, and a curious old English kind, known as Norfolk Beafin, might have been as dark as the Black Detroit, if grown in a country like ours. The prevailing tint was of a deep orange, this running more or less through all the kinds. As showing the growing close relationship between America and Australia, it was pleasant to note that the greatest number of these apples were American kinds. The fruits were two months on the road, wrapped in cotton on the way, and though some had fallen by the wayside, the whole came in excellent condition considering all things.

The Heated Term.—Last week the season of unusual heat which has rested like a heavy burden upon our harvesters took to itself wings and sped away chased by cool winds and an unwonted July rain. Many were glad to see the flight of the burning air and too fatal sunshine. Never, since a record of affairs on this coast have been kept has there been such a merciless and enduring heat. Two weeks ago we noted a number of sunstrokes and ever since there has been here and there a man crowded to the earth by the influence he could not withstand. The rain which broke the spell was quite wide in its extent. We hear from it all along the great central grain counties but no great damage was reported. There has been some threshing out by the winds but the rain was voted almost everywhere a welcome visitor.

At the East they have been having this week an infliction like that we have experienced with heat. The telegraph on Tuesday morning noted at least 50 cases of sun stroke in the Eastern cities and prostration is noted in many parts. As we write we have a day in the city very like those of two weeks ago and possibly our California heated term is not yet over.

Safety from Rats and Mice.—A. J. Willard of School House station, San Mateo county, brings us a very simple and in his experience a very effective safety against rats and mice. He takes two round pieces of tin, like the bottom of a fruit can, punches a hole in the center of each piece and strings them on a strong wire, one near each end. Then he stretches the wire from side to side of a room and fastens each end firmly. Anything which is hung upon the wire between the plates of tin is safe from the rats, for if they walk out upon the wire, every time they try to mount the circle of tin it revolves and they cannot pass over it. Mr. Willard has found this simple contrivance very useful in saving meat, grain, etc., and advises all farmers to try it.

Immigration.—The immigration movement toward this coast, thus far this year, shows a large falling off as compared with last year. The through arrivals by rail for the month of June numbered 5,606 and 4,166 departures, against 7,058 arrivals and 3,059 departures for the same month last year. The departures by rail for May were also unusally numerous. Much of this apparent decrease is due to visitors to the Centennial exhibition at Philadelphia, and the autumn months will see most of them back again. The passenger arrivals by sea during the month numbered 7,810, and the departures 5,604. The arrivals including 1,200 from China and Japan, 300 from Panama, 350 from Australia, 190 from British Columbia and 140 from Mexico and the Hawaiian islands. The arrivals from China show a large falling off.

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Home Counsel.

Our long experience in obtaining patents for Inventors on this Coast has familiarized us with the character of most of the inventions alresdy patented; hence we are frequently able to save our patrons the cost of a fruitless application by pointing them to the same thing already covered by a patent. We are always free to advise applicsnts of any knowledge we have of previous applicants which will interfere with their obtaining a patent.

We invite the acquaintance of all parties connected with inventions and patent right business, believing that the mutual conference of legitimate business and professional men is mutual gain. Parties in doubt in regard to their rights as assignees of patents, or pnrchasers of patented articles, can often receive advise of importance to them from a short call at our office.

Remittances of money, made by individual inventors to the Government, sometimes miscarry, and it hss repeatedly happened that applicants have not only lost their money but their inventions also, from this cause and consequent delay. We hold ourselves responsible for all fees entrusted to our agency

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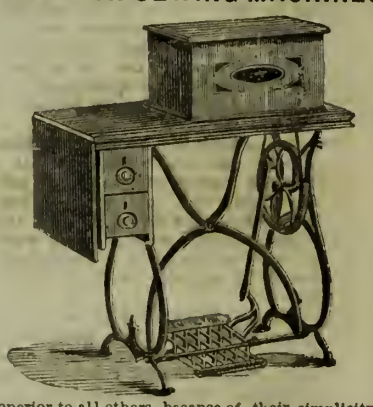
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Statement, December 31st, 1875.

TOTAL RISKS WRITTEN	$3,845,189.00
TOTAL PREMIUMS	79,301.72
LOSSES PAID	821.00
ASSETS DEC. 31st, 1875	170,907.41

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Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

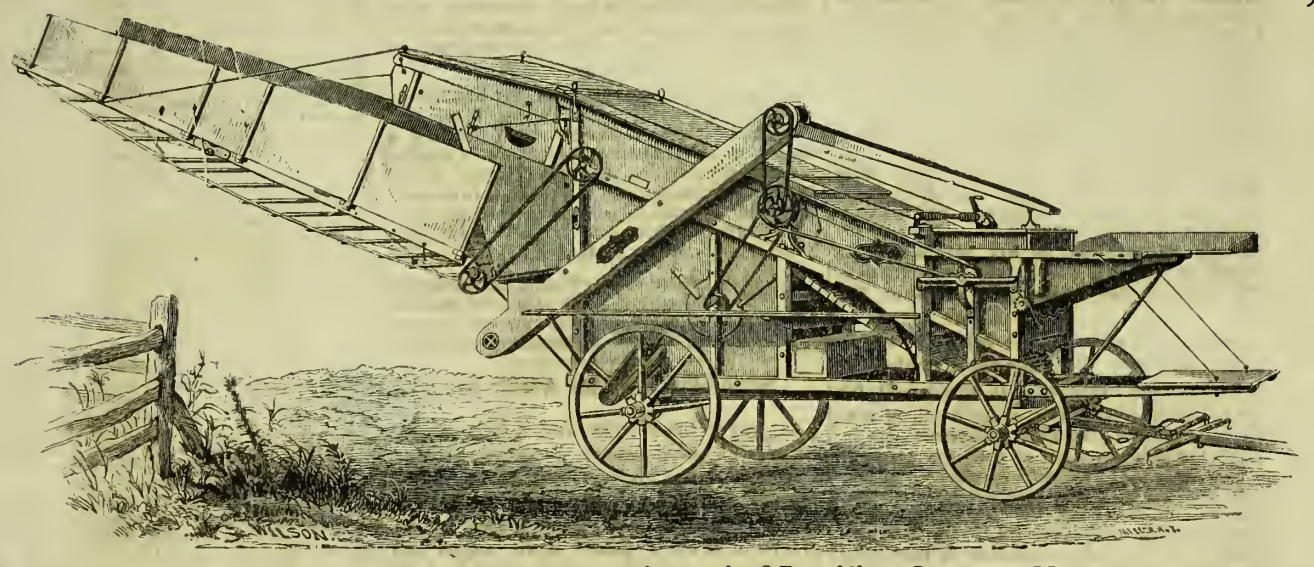
Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco.

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50 **Visiting Cards,** with your name finely printed, sent for 25c. We have **100** styles. **Agents Wanted. 9** samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

SWEEPSTAKES THRESHER,



With all the Latest Improvements for the Pacific Coast, Manufactured for
FRANK BROS. & CO.

We will warrant every Machine sold to do Better, Cleaner and Faster Work than any other Thresher on the Coast.

All who are in want of Threshers should not fail to call and see the improvements that h been put on the Sweepstakes for the Harvest] We also have the Cary Power, to which we would call special attention.

FRANK BROS. & CO.,
349 MARKET STREET., - - - - - - - - - - SAN FRANCISCO.

GRANGERS' BUSINESS ASSOCIATION,

Incorporated Feb. 10th, 1875. Capital Stock, $1,000,000.

OFFICERS and DIRECTORS:

DANIEL INMAN, (PRESIDENT). AMOS ADAMS, (SECRETARY). THOS. FLINT.
R. C HAILE, (VICE PRESIDENT). THOS. UPTON. G. P. KELLOGG.
JOHN LEWELLING, (TREASURER). I. C. STEELE. W. L. OVERHISER.
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SHIPPING and COMMISSION HOUSE,

Grangers' Building, - - - - 106 Davis Street, S. F.

Consignments of Grain, Wool, Dairy Products, Fruit, Vegetables, and other Produce solicited, and advances made on the same. Orders for Grain and Wool Sacks, Produce, Merchandise, Farm Implements, Wagons, Etc., solicited and promptly attended to.

We do a strictly Commission Business, and place our rates of Commission upon a fair legitimate basis that will enable the country at large to transact business through us to their entire satisfaction.

Consignments to be marked Grangers' Business Association, San Francisco. Stencils for marking will be furnished free on application.

DANIEL INMAN, Manager.

JOHN H. GOVE'S

CENTENNIAL HAY PRESS.

Farmers and Hay Pressers will find it to their advantage to examine this Press before buying any other. It is built compact, combining lightness for moving with the greatest power and durability in its working parts, capable of making the average 250 pound bale, more or less, baling 10 to 15 tons per day, with three men and a pair of horses, they traveling only 36 feet to operate it. No excavations required for this Press. This is the original Gove Press improved, after an experience of building Presses in the States the past 15 years, where they gave the best of satisfaction. **Price, No. 1, $250.**

Manufactured and for sale, or built to order, at the EUREKA GRAIN STORAGE WAREHOUSE, by **JOHN H. GOVE** or **ANDREW J. GOVE,** Box 1122.

A Liberal Discount to the trade. For Sale by all Agricultural Dealers.

HEALD'S BUSINESS COLLEGE,

No. 24 Post Street,
SAN FRANCISCO, CAL.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

LADIES' DEPARTMENT.—Ladies will be admitted for instruction in all the Departments of the College.

TELEGRAPHIC DEPARTMENT.—In this Department young men and young ladies are practically and thoroughly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars, E. P. HEALD, President Business College, San Francisco, Cal.

The Mining and Scientific Press,
Established 1860, is a Large, Ably Edited and Liberally Illustrated Weekly—the BEST PRACTICAL MINING AND MECHANICAL JOURNAL in America. $4 per annum, postage paid. DEWEY & Co., San Francisco.



E. B. MOTT, Jr.,
IMPORTER AND DEALER IN
STOVES, METALS AND TINWARE
And Sole Agent for the Rathbone Range.
53 and 55 J Street, Sacramento.

EXTRAS! | EXTRAS!!

Headquarters for Extras for the following Harvesting Machines:

CLIPPER, WOOD'S EAGLE, RUSSELL'S AND WORLD MOWERS AND REAPERS, DAYTON AND CHICAGO PITTS SEPARATORS AND HORSE POWERS, HAINES' AND CASE HEADERS.

Orders filled with utmost despatch.

LINFORTH, KELLOGG & CO., - - - 3 & 5 Front St., San Francisco.

H. H. H.

HORSE MEDICINE.

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,
Stockton, Cal.

Dewey & Co. {224 Sansome St} **Patent Agt's.**

H. K. CUMMINGS. 1858. H. H. RALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer

---

MERCHANT MILL FOR SALE,

And 150 Acres Land. Turbine Wheel, 190 feet fall, 35 barrels per day. Good Home Market and Never Failing Water.

S. A. POLLARD,
San Luis Obispo.

Notices of Recent Patents.

Among the patents recently obtained through Dewey & Co.'s SCIENTIFIC PRESS American and Foreign Patent Agency the following are worthy of mention:

FRUIT DRIER.—H. G. Hulburd, Placerville, El Dorado county. This invention is an improved machine for drying fruit, vegetables and other substances. It consists of an annular chamber which is arranged to rotate around a heating furnace and receive hot air from it. The hot air is received into the upper portion of the rotating chamber, and as it becomes charged with moisture from the substances being dried, it descends to the lower part of the chamber, and is discharged into the open air. The natural draft is used for drawing the heated air through the drying chambers, and the saturated air is renewed by its own gravity, so that there will be no forced currents to give uneven degrees of temperature in the chamber, and the fruit will be subjected to the gentle action of a uniform temperatnre. Where the fruit is subjected to an upward moving current of hot air, whether the fruit is carried towards or away from the greatest heat the air when it becomes saturated with moisture has a tendency to descend and will arrange itself in strata, according to its specific gravity or degree of saturation. The fruit is therefore compelled to pass from one degree of heat and moistnre to another during its entire passage through the machine; whereas, many kinds of fruit, vegetables and other substances require a perfectly uniform dry atmosphere, and, the inventor thinks, should not be subjected to any great quantity of moisture during the drying process. This is illustrated, the inventor claims, by the power of this machine to produce perfect raisins from grapes, which it has accomplished in the most satisfactory manner. Tho fruit is subjected in this machine to a constant and uniform temperature of dry air, which is heated by radiation which will not eliminate the moisture too suddenly to overheat the fruit.

ARTESIAN WELL BORER.—John A. Woodhonse, Anaheim. Considerable difficulty has heretofore been experienced in boring wells for the reason that frequently at the depth of several hundred feet very hard rock is reached, in which the ordinary form of drill fails to cut a bore of sufficient size and regularity for the well pipe shoe to pass through. To obviate this and other defects, the inventor has constructed a drill which, by reason of an arrangement of automatically expanding or projecting side drills and ohisels, and a main center drill below such arrangement of side drills, a bore of sufficient size and smoothness will be insured in every instance. When rock is reached which requires this construction of drill, it is coupled with the working shaft, inclosed within the shoe or lower cylindrical case of the well tube and sunk to the bottom of the well; after this the shoe is raised above the several series of side cutters and the operation of drilling commenced.

SHINGLE MACHINE.—Frank A. Hnntington, S. F. In the first place Mr. Hnntington has invented an improved arrangement for securing saw blades upon their arbors, which arrangement will be especially usefnl in a shingle machine, because it admits of carrying the bolt or block close up against the saw arbor and thus utilizing a greater portion of the blade, conseqnently rendering a saw of smaller diameter capable of doing the work of a saw of larger diameter when mounted in the ordinary way. He has also invented an improved arrangement for aulomatically operating the carriage which handles the bolt or block, and provided in connection therewith a novel feeding device and a stop for preventing the carriage from operating when the bolt or block has been sufficiently cut.

FIELD BOILER.—John A. Heald, Vallejo. This is an improvement in that class of boilers which are nsed for threshing engines and similar purposes. On the chimney of the boiler is placed a metal plate to deflect the wind in such a manner as to cause a good draft. Another improvement is in the construction of the door, which turns on horizontal hinges, and is made adjustable so that the opening can be made larger or smaller to accommodate any class of fuel—wood or straw as desired. There is also an arrangement of transverse tubes in the main flue which serves the purpose of diverting the heated air and prevents it striking the back plate, assisting it in retnrning through the smaller tubes to the chimney.

PARTITION BRICK.—Jules Borie, Oakland. This comprises certain improvements in hollow bricks by which they are rendered especially useful for constructing partition walls in buildings. Owing to their lightness, as compared with solid bricks, and to the fact that a circulation of air can be maintained through a wall composed of hollow brick, they are especially adapted for partition walls. The improvements consist first in such a formation of the ends of this class of bricks that the abntting ends of each two bricks in the wall will interlock with each other, and thus form a wall or partition in which all the bricks are bound together as a unit. Secondly, in providing in the sides of each brick perforations for holding the plastering of the wall and binding it firmly to the bricks

BAG FASTENING.—Antone Rihn, Coulterville, Mariposa county, Cal. The improvement to which this patent refers can be adapted to bags and sacks of all kinds, but they are more especially adapted to grain bags. Metallic eyelets or rivets are used to fasten the corners of the sacks, and hooks made of best wire are used to fasten the month. The inventor claims to have provided a cheap and effective bag fastening, which can be readily manipnlated and which will save much time in closing the mouth of the bag. We expect shortly to illustrate this invention.

CONSTRUCTION OF WOODEN TANKS.—Edgar M. Morgan, S. F. Mr. Morgan's improvement in the construction of tanks consists in building up the sides of the tank of two or more thicknesses of overlapping boards, which are properly bent so as to be applied horizontally. It also consists in the application of an inside and outside brace at the base of the sides in the angles formed by the conjnnction of the bottom and sides of the tank.

MARKING IMPLEMENT.—Joseph Perkins, S. F. This invention relates to an improved implement or pen for marking heavy and light lines such as are usnally formed with a broad marking pen or brush and colored liquid. The improved implement is especially adapted for writing or printing by hand directions npon packages and boxes, and for making figures, characters or sketches which are composed of alternate heavy, light and shaded lines.

MECHANICAL MOVEMENT.—Robert Swarbrick, Oakland. This invention relates to an improved mechanical device for converting a treadle or reciprocating motion into a continuous rotary motion. This mechanical movement is very cheap, and can be used in connection with a treadle instead of a crank for driving a sewing machine or such ot er machines as are usually driven by foot power.

MEDICAL COMPOUND.—Shane & Kearney, S. F. This discovery is an improved medical compound or liniment for the cnre of rheumatism, gout and similar inflammatory diseases.

Something New for Adobe Soil.

We find in the *Russian River Flag* a short description of a novel agricultnral implement, to which we shall allude hereafter if we hear of its success. It is as follows:

O. A. Ormstead, at Santa Rosa, who is the proprietor of a new patent steam wagon and cultivator, is building a working model of his invention, which, if it fulfills the anticipation of the inventor, will revolutionize the cultivation of adobe soil. The wagon consists of an open frame work, 10x20 feet, and sustains a six-horse rotary engine, which drives two cog-wheels mashing into a rolling track or wheel, consisting of nothing bnt felloes and tire, with segment inside of the felloes; so there is but a five-inch leverage on the tire, or the thickness of the segment, felloe and tire. The wheel is the principle patented; power and not speed is the object desired.

The cultivator consists of a rotary cylinder, armed with spokes, similar to the cylinder of a separator, revolving at 600 revolutions per minnte. To this is attached a separate engine, the whole working independent of the wagon. The latter drags the simple weight of tho cultivator, which pulverizes the ground into dust if desired, leaving it ready for the reception of the grain. A grain sower can be placed behind the cultivator, followed by a rotary harrow. The whole machine when complete will not be more than 10 feet wide and 25 feet long, including cultivator, and will rnn about four miles per hour, or as much less as may be desired.

Our Antipodes.

A wrong idea prevails (if we judge by newspaper gossip) regarding the nationality of our antipodes. China is usnally the accnsed party. Bnt in this case she is innocent.

To us mortals upon the earth's surface, down means in a vertical direction to the earth's center, and real antipodal points are therefore where a straight line passing through the center of the earth cuts the surface. Tnen it is evident that the antipode of any place in the northern hemisphere must lie in the southern hemisphere. The *latitude* of antipodal points will be the same, but one will be north and the other south. The *longitude* will differ by 180 degrees.

Thus we find onr (San Francisco) antipodal point to be in the southern Indian ocean, about 1,000 miles southeast of the island of Madagascar. The point opposite New York is also in the southern Indian ocean, about 500 miles southwest of Anstralia. The point opposite Peking, China, is in northern Patagonia. A shaft from San Francisco which would reach Peking if continued must (as the miners say) pitch to the west and make an angle with the vertical of about 39¾ degrees. H.

NEW BOILER INVENTION.—The first steam engine and boiler ever constructed in Southern California has just been completed by onr persevering townsman, George Van Deren. This engine contains improvements that when fully known will be considered one of the greatest improvements of the age, and bids fair to place the name of the inventor on the same level with that of James Watt. There is bnt one valve in its entire constrnction, which performs the same labor as the gate, snpply and governor valves do in ordinary engines. The stuffing and packing box are entirely dispensed with, and there is a saving of 50 per cent. of steam and 25 per cent. of fuel in generating the same amonnt of power as is required of those now in use. Besides, the boiler is bnt half the size and the machinery is more simple and compact, costing for construction abont 60 per cent. of the amount paid for the cheapest engine now manufacinred. Mr. Van Deren will kindly comply with the request of many of onr citizens and exhibit his model, which is a beautiful piece of workmanship, on the Fourth of July, after which he goes to San Francisco, where we hope he will realize what perseverence and energy merit.—*San Bernardino Times.*

Prices of California Wheat in Liverpool for the Harvest Year 1875-76.

	Average.	Club.
JULY.		
1	8/10@9/ 2	9/ 2@9/ 6
2	9/ 0@9/ 4	9/ 4@9/ 7
6	9/ 0@9/ 4	9/ 3@9/ 8
9	9/ 2@9/ 5	9/ 4@9/ 9
13	9/ 4@9/ 6	9/ 6@9/10
14	9/ 5@9/ 7	9/ 7@9/10
15	9/ 6@9/ 8	9/ 9@9/11
16	9/ 9@9/10	9/11@10/ 4
19	9/10@10/ 2	9/11@10/ 4
20	10/ 2@10/ 6	10/10@11/ 0
21	10/ 5@10/ 6	10/10@11/ 0
24	10/ 9@11/ 0	11/ 3@11/ 4
25	10/10@11/ 3	11/ 4@11/10
27	10/ 2@10/ 7	10/ 6@11/ 2
28	10/ 2@10/ 7	10/ 6@11/ 2
29	10/ 2@10/ 7	10/ 6@11/ 2
30	10/ 5@10/ 8	10/ 8@11/ 2
31	10/ 5@10/ 8	10/ 8@11/ 2
AUGUST.		
3	10/ 8@11/ 0	11/10@11/ 6
5	10/ 9@11/ 1	11/ 0@11/ 6
6	11/ 2@11/ 6	11/ 5@11/10
9	11/ 6@11/ 8	11/ 9@12/ 2
10	11/ 9@12/ 0	12/ 0@12/ 6
12	11/ 6@11/10	11/ 9@12/ 3
13	11/ 3@11/ 9	11/ 6@11/ 3
17	11/ 2@11/ 6	11/ 6@12/ 0
21	11/ 2@11/ 5	11/ 6@12/ 0
23	11/ 0@11/ 5	11/ 2@12/ 0
31	11/ 2@11/ 5	11/ 6@12/ 0
SEPTEMBER.		
2	11/ 3@11/ 5	11/ 7@11/10
4	11/ 0@11/ 4	11/ 4@11/ 9
7	11/ 0@11/ 4	11/ 4@11/ 9
8	10/10@11/ 2	11/ 2@11/ 8
10	10/10@11/ 0	11/ 0@11/ 6
21	10/ 7@11/ 0	10/10@11/ 6
24	10/ 6@11/ 0	10/10@11/ 5
28	10/ 8@11/ 0	11/ 0@11/ 5
OCTOBER.		
1	11/ 0@11/ 3	11/ 4@11/ 8
5	11/ 1@11/ 4	11/ 5@11/ 8
8	11/ 0@11/ 3	11/ 4@11/ 6
12	11/ 0@11/ 4	11/ 4@11/ 8
19	11/ 1@11/ 5	11/ 4@11/ 9
24	11/ 1@11/ 6	11/ 4@11/ 9
26	11/ 0@11/ 4	11/ 4@11/ 9
NOVEMBER.		
1	11/ 0@11/ 4	11/ 4@11/ 9
2	10/11@11/ 2	11/ 4@11/ 8
4	10/10@11/ 0	11/ 4@11/ 8
5	10/10@11/ 0	11/ 4@11/ 8
6	10/10@11/ 2	11/ 4@11/ 8
9	11/ 0@11/ 1	11/ 2@11/ 8
12	10/ 8@11/ 0	11/ 2@11/ 6
16	10/ 8@11/ 0	11/ 2@11/ 6
23	10/ 9@11/ 1	11/ 3@11/ 7
26	10/10@11/ 1	11/ 2@11/ 7
30	10/10@11/ 1	11/ 2@11/ 7
DECEMBER.		
1	10/10@11/ 1	11/ 2@11/ 7
7	10/10@11/ 1	11/ 2@11/ 7
10	10/ 8@11/ 1	11/ 0@11/ 7
14	10/ 8@11/ 0	11/ 0@11/ 6
17	10/ 6@11/ 0	11/ 0@11/ 6
21	10/ 6@11/ 0	11/ 0@11/ 6
24	10/ 5@10/10	11/ 0@11/ 6
28	10/ 5@10/10	10/10@11/ 6
JANUARY.		
3	10/ 5@10/10	10/10@11/ 6
4	10/ 4@11/ 8	10/10@11/ 2
5	10/ 4@10/ 9	10/10@11/ 2
7	10/ 2@10/ 6	10/ 8@11/ 0
11	10/ 3@10/ 8	10/ 8@11/ 0
14	10/ 5@10/ 9	10/ 9@11/ 3
18	10/ 4@10/ 6	10/ 9@11/ 3
21	10/ 3@10/ 5	10/ 9@11/ 1
25	10/ 1@10/ 4	10/ 6@11/ 1
28	10/ 0@10/ 3	10/ 6@11/ 0
FEBRUARY.		
1	10/ 0@10/ 3	10/ 5@10/10
8	10/ 2@10/ 4	10/ 6@11/ 0
11	10/ 3@10/ 5	10/ 6@11/ 0
15	10/ 2@10/ 5	10/ 6@11/ 0
18	10/ 0@10/ 4	10/ 4@11/ 0
23	9/11@10/ 2	10/ 3@10/10
25	9/10@10/ 1	10/ 3@10/ 9
MARCH.		
1	9/10@10/ 0	10/ 2@10/ 8
7	9/10@10/ 0	10/ 2@10/ 8
14	9/11@10/ 2	10/ 3@10/ 8
17	10/ 1@10/ 5	10/ 4@10/10
21	10/ 2@10/ 6	10/ 6@11/ 0
24	10/ 2@10/ 6	10/ 5@11/ 0
28	10/ 2@10/ 6	10/ 5@10/ 0
31	10/ 0@10/ 4	10/ 3@10/10
APRIL.		
1	10/ 0@10/ 4	10/ 3@10/10
4	9/10@10/ 2	10/ 2@10/ 9
7	9/ 6@10/ 0	10/ 0@10/ 6
11	9/ 8@10/ 0	10/ 0@10/ 6
18	9/ 9@10/ 1	10/ 3@10/ 8
21	9/ 8@10/ 0	10/ 2@10/ 7
25	9/ 7@ 9/10	9/11@10/ 5
28	9/ 6@ 9/10	9/10@10/ 5
MAY.		
1	9/ 6@ 9/10	9/10@10/ 5
2	9/ 7@ 9/11	9/10@10/ 5
6	9/ 6@ 9/10	9/10@10/ 3
9	9/ 6@ 9/ 9	9/10@10/ 2
16	9/ 8@ 9/10	9/10@10/ 4
23	9/ 8@ 9/10	9/10@10/ 4
26	9/10@10/ 2	10/ 2@10/ 6
30	9/ 9@ 9/10	10/ 0@10/ 6
JUNE.		
1	9/10@10/ 0	10/ 0@10/ 6
2	9/11@10/ 2	10/ 2@10/ 6
6	10/ 0@10/ 2	10/ 2@10/ 6
13	9/11@10/ 2	10/ 4@10/ 6
16	9/10@10/ 1	10/ 2@10/ 6
21	9/ 9@10/ 1	10/ 0@10/ 6
27	9/ 8@10/ 0	9/10@10/ 5

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

A Standard Employment Agency in San Francisco.

The agency to which we would now call the attention of the readers of the CALIFORNIA PATRON, was established twenty years ago, and is the oldest establishment of the kind on the Pacific coast. From a small beginning in 1855, it has grown to such dimensions that it has been compelled repeatedly to move into more commodious quarters, and now it occupies the large double store formerly occupied by M. Gray & Co., No. 625 Clay Street, next door west of the banking house of the San Francisco Savings and Loan Society, one of the most central business locations in the city. MESSRS. CROSETT & CO. are daily supplying orders sent from all parts of the State, containing requests for every variety of labor, for the farm, the field, orchard, vineyard, tending stock, or cultivating the soil; for all kinds of lumber, milling and mining work, from superintendent down to simple laborer; for the shop, mechanics, engineers, artisans, and skilled workmen of every kind. Nor do their orders contain requests for male help alone. Great pains is taken to supply our housewives with the very best Domestics, Cooks and General Housemaids that can be obtained. They would call the especial attention of GRANGERS AND FARMERS GENERALLY to their facilities for supplying farm help. Referring confidently to their past record for faithful attention to the wants of patrons, they have no hesitation in assuring all applicants who may favor them with their orders, that they can nowhere else be better or more promptly served than by applying to this old established agency. Mr. Crosett gives his constant personal attention to his business. His long experience makes him quick to see and accurate in judging of the merits of those who apply to him for situations. And his well established and wide extended reputation brings to his office an abundant supply of every kind of labor, from which he is enabled to select the best.

All this advantage Mr. Crosett gives to those who favor him with their orders, and that, too, without any expense to the employer—all the fees, (which, by reason of a large business being transacted, are moderate), being paid by the employee. The Employment Agency of Messrs. Crosett & Co. is supplying a great need in our State and we take pleasure in commending it to all readers of the PRESS.

Superior Photographs.

To be sure of a good picture, you have only to patronize G. D. Morse's Palace of Art, at No. 417 Montgomery street, S. F. The publishers of this journal have patronized Mr. Morse for many years, and do not hesitate to say that his pictures are not excelled by any we have seen produced in this or any other country. No one can ask for a better man to patronize than Mr. Morse. He is affable and respectful to all.

Much Obliged, Etc.

PORTLAND, OGN., June 26th, 1876.

DEWEY & CO., Patent Solicitors, S. F.—*Gents:* I am much obliged to you for courtesy shown me, and am well pleased with the manner in which you have done my business, and assure you, will cheerfully recommend you to my acquaintances needing such services. Hope to have a case again before long, of my own. I have been an invenlor all my life, but let others reap the benefit, or had work stolen from me. Please have the extra copies of my patent, etc., mailed to me direct, and oblige Yours truly, J. H. WOONRUM.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

J. L. THARP—San Francisco.
B. W. CROWELL—California.
G. W. MCGREW—Santa Clara county.
J. M. MCARTHUR—Los Angeles, Santa Barbara, Ventura, San Bernardino and San Diego counties.
A. C. KNOX—El Dorado county.
F. A. SCOFIELD—Sonoma county.
C. N. WEST—Santa Cruz county.
CHAS. E. SAJOUS—Philadelphia.
A. C. CHAMPION—Tulare, Fresno and Kern counties.
RICHARD RULE—Nevada.

Employment Wanted.

Wanted, some kind of employment in the country. Can run a small engine or do many kinds of light work in farming. Reference furnished. Address B., this office.

AN ESTATE IN SAN DIEGO COUNTY.—Readers have doubtless noticed the advertisement of Lee H. Utt, of San Diego county, in which he offers for sale a share in the estate called "Aqua Tibia" in Pala, San Diego county. Mr. Utt, as we are informed, has brought his property into a fine state of development, and finds that its management requires the time of two men. He cannot secure hired help to take an interest in the work and stay permanently as he desires, and so he asks for a man to take half ownership and assume the active control of the property. It is an opportunity which we consider worth looking into.—*Rural Press, June 10th.*

FARMERS, send to May Bros., Galesburg, Ill., for descriptive circular of their new improved, heavy, steel-vane Windmill, and of their "Combined Mill." Warranted first-class mills. Wholesale price of nine-foot wheel, $30 on cars. One month trial given. Any carpenter (with the printed directions) can put the mill up right in one day. Farmer agents wanted.

GOOD PRINTING INK.—We prefer Chas. Eneu Johnson's printing inks, having used them on this paper for the past four years. H. S. Crocker & Co., printers, stationers, blank book and paper dealers, are Johnson's S. F. agents.—DEWEY & CO., Publishers.

At our request, Cragin & Co., of Philadelphia, Pa., have promised to send any of our readers gratis, (on receipt of 15 cents to pay postage,) a sample of Dobbins' Electric Soap, to try. Send at once.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Wednesday, July 12th, 1876.

The revival of business after the patriotic holidays effects considerable activity in some lines. In Domestic Produce there were considerable accumulations awaiting shipment to the city, and their coming caused a tumble in prices for all fruits and vegetables. On the other hand there has been a remarkable activity in Provisions, and both fresh and cured Meats have advanced in price. Other special features in the trade in each article of Produce will be noted below.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	CAL. AVERAGE.			CLUB.		
Thursday	9s	9d@10s	1d	10s	—@10s	5d
Friday	9s	9d@10s	1d	10s	—@10s	5d
Saturday	9s	9d@10s	1d	10s	—@10s	5d
Monday	9s	9d@10s	1d	10s	—@10s	5d
Tuesday	9s	8d@10s	—	9s	10d@10s	5d
Wednesday	9s	8d@10s	—	10s	—@10s	4d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.			Club.		
1874	12s	—@12s	2d	12s	4d@12s	9d
1875	9s	2d@ 9s	5d	9s	4d @ 9s	9d
1876	9s	8d@10s	—	9s	10d@10s	4d

The Foreign Review.

The telegraphed review of the European Grain trade from the *Mark Lane Express*, under date of July 10th, is as follows:

"The neutrality of the great Powers and the warlike attitude of affairs have not as yet exercised any great influence on the grain trade, though holders evince a somewhat increased firmness. The present state of trade, therefore, is one of watchfulness, accompanied by some anxiety, as there are weather risks as well as war risks to be considered. During the past week the supply again exceeded the requirements, and Wheat is going into the granary to await events. There has been a steady consumptive demand during the week, although quieter at the close. Floating cargoes have been depressed, owing to the large arrivals at port of call. Sales at the end of the week indicate a decline of 1@1 6d per quarter."

The Growing Crops in Other Fields.

Latest mail advices from abroad report great improvement in the condition of the growing Grain crops in nearly all European countries. In Southern Russia the harvest is near at hand, and from the present outlook a satisfactory yield will be had. Winter Wheat has been damaged considerably in some sections, but the spring crop appears to be a success generally. French advices report a notable recovery from the damage occasioned by the late heavy thunder storms, and, with one or two exceptions, the prospects are very favorable. The weather throughout Holland was settled, and daily improvement is noted in all cereal crops but Rye. From Hungary there are some few complaints about Wheat being in a smutty condition and the backwardness of maize, but on the whole there has been very general improvement since last advices. Complaints from Austria have all died out, and everything looks favorable for a good yield. In Algeria the prospects are all that could be desired. Some samples of Wheat have been exhibited which promise well.

In the prairie region of the United States there are notes of disasters. Crop reports from 238 points in Ohio, Indiana, Illinois, Kentucky and Tennessee were telegraphed to the Cincinnati *Gazette* last night. From those reports it appears that the season has been very propitious for growing most kinds of grain; but just as harvest approaches, there is threatened disaster from continued rains. From all points, except Tennessee and Southern Kentucky, fears of only a partial crop are entertained. As crops now stand, Wheat promises to yield two-thirds; oats, less than an average crop; corn, unusually large crop.

The *Prairie Farmer* of July 1st says: There is no doubt that the Wheat crop in extensive districts, in Illinois, Iowa, Wisconsin and Michigan, has been seriously injured. In the latter State, the wet weather succeeded by conditions of temperature favorable to rust, has done much damage, while in the prairie States, insects have in numerous localities made havoc with the fields. Our own private advices, as well as the reports in the public prints, indicate that the damage to Wheat is serious.

Freights and Charters.

Freights of all kinds, says the *Post*, have been inactive during the week, owing to the holidays. As regards Wheat charters the market is in a weak condition, and the high rates paid by speculators early in the season are doubtless causing them much embarrassment at the present. A large portion of the tonnage chartered to arrive has been taken at figures which closely approaches £3 5s, though even higher rates are known to have been paid in many instances. At the present moment it would be impossible to recharter even a first-class iron ship at that figure, and many shippers are inclined to the opinion that £3 2s 6d is above the market, owing to the slow condition of the Wheat trade in England. It will thus be seen that the speculators have a large amount of tonnage on hand which cannot be placed except at a loss. In this dilemma it is natural to suppose that they will load up with Wheat on their own account, in order to hedge prospective losses. It is reported that chartering to arrive is still going on at high figures for California account. Outside business presents no new features. We have now 43,689 tons in port for Wheat loading. The disengaged tonnage includes 21 vessels, aggregating 13,219 tons.

Old Grain on Hand July 1st.

The San Francisco Produce Exchange has just published a statement of the stock of Flour and Grain, (crop of 1875), in the State on the 1st of July. It is thought the returns for Wheat comprise all the old stock left in the State, but the same confidence is not felt in the returns of Feed Grain. The quantity of Flour on hand is given at 15,100 hhls, including 8,000 hhls here and aboard vessels in the harbor, and the balance principally in the northern counties. Following are the localities of old Wheat and Barley:

	Wheat.	Barley.
San Francisco and vicinity, ctls	28,200	24,100
Northern Coast	2,000	1 800
Napa Valley, etc	18 700	1,100
Sacramento Valley	5,000	400
Lower Sacramento, etc	2 800	9,200
East Side San Francisco Bay	7,500	41,600
San Leandro to Livermore	2,500	4 800
Stockton to San Joaquin	46,000	.....
Redwood to Hollister	3,500	3,200
Salinas and Pajaro Valley	5,300	5,900
Southern Coast	100	14,900
Totals	126,600	107,000

The stock of Oats is given at 4,400 ctls, all in the city. The quantity of corn is reported at 34,700 ctls, of which 28,600 ctls is still at the place of growth in the southern counties, and the balance here. The quantity of Grain carried over into the new crop year has rarely been so small as this season. It is fortunate that we have empty granaries for our bountiful harvest.

The Produce Receipts for the Half Year.

As we closed a half year's trade on the first day of July, it will be interesting to note the aggregates of Domestic Produce which have been received. They are as follows:

Flour, qr sks	988,700	Onions, sks	24,899
Wheat, ctls	2,069,723	Bran, sks	103,888
Barley, ctls	479,344	Middlings, sks	20,878
Oats, ctls	95,125	Hay, tons	32,413
Corn, ctls	116,109	Straw, tons	2,195
Rye, ctls	5,146	Wool, bales	87,136
Beans, ctls	41,590	Cotton, bales	86
Potatoes, sks	352,533	Hops, bales	2,172

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

ARTICLES.	WEEK JUNE 21	WEEK JUNE 28	WEEK JULY 5.	WEEK JULY 12
Flour, quarter sacks	31,278	12,644	16,649	71,776
Wheat, centals	62 921	120,494	123,231	110,567
Barley, centals	30,618	21,986	14,741	22,743
Beans, sacks	1,012	391	670	2,136
Corn, centals	5,010	3,169	398	1,040
Oats, centals	1,250	1,317	762	5,740
Potatoes, sacks	9,595	11,972	6,458	11,429
Onions, sacks	824	1,051	603	846
Wool, bales	4,226	1,776	974	2,919
Hops, bales	65	33	45	117
Hay, bales	1,369	4,286	762	1,779

Bags.—The Bag market is considered "shaky" by those in the trade. Standard Wheat Bags are now quoted at 13½c for an outside jobbing rate, which is a decline of ½c since our last report. Large lots could doubtless be secured for cash below our quotation. The dissatisfaction which prevails with the price at present offered for grain will lead to considerable storing in bulk, and Bags will not be needed until the sales are made. It now appears how short sighted was the attempt recently made by interested parties in this city to bull and bolster the Bag trade. They are like to reap themselves the disasters of their narrow policy.

Barley.—An improvement is noted in barley. New Feed has advanced considerably since our last quotations, and we shall quote hereafter without distinction between new and old, except in special transactions. We note sales during the week as follows: Two hundred sks good new Feed, $1, gold. Brewing is held at $1.10@$1.20; 1.000 sks good new, 82½c, gold; 500 do choice old, $1.21½, half silver; 875 do good old, $1.07½ ₱ ctl. silver. Six hundred sks new Feed at $1, half silver; 600 do old Chevalier, $1.02½, silver; 500 ctls choice old Brewing at $1.12½ ₱ ctl. half silver; 1.500 sks good new, 87½@90c; 1,200 do do, 87½c; 800 do choice old Brewing, $1.25, all half silver; 1,700 do do, $1.15, quarter silver. The higher rates noted in these sales have been gained within the last two days. There has arisen considerable inquiry for export, and vessels have been loaded for South America. We notice in the commercial reports of late Chicago papers, the offer of any part of 500 carloads of California Barley (new crop) for sale. The report adds: The best bid heard was $1, which was refused. Five hundred carloads, at nine tons to the car, would give a total of 4,500 tons. Competing with what is incorrectly termed the West on its own chosen field is, though not an entirely new phrase in our development, a very suggestive one. As the great bulk of our grain goes to Europe, California has not heretofore entered largely into Eastern crop speculations.

Beans.—The trade in beans is still very small, although receipts have been larger this week. Our quotations are still nominal.

Corn.—Corn is unchanged. We note sales: Two hundred and fifty sks large Yellow at $1.20, silver; 350 do do, $1 15 ₱ ctl, half silver; 600 do do and 100 do large White, private.

Dairy Produce—Butter is advancing. There is beginning to be felt the usual shrinkage in milk and the supply of fresh roll is smaller in the market. Cheese is unchanged.

Eggs—Eggs are up again, and there has been a sharp advance as shown by our quotations.

Feed—Hay is selling at former prices with a tendency toward the lower figures. We note sales: 31 tons choice new Wheat, $13; 25 tons poor, $7.25; 40 tons good Wild Oat, $12.50; 41 tons, Wheat and Clover, $9.50; 53 tons Clover and Oat, $10; 44 do Wild Oat, $10, 44 do Wild Oat and Wheat, $11.50; 35 tons Stock, $9.25; 25 do mixed, $10; 70 do Wheat, in two lots, $12.50@13 per ton.

Fruit—The market is filled with fine fruit and prices have taken a deep tumblo for most kinds. Peaches are arriving in large quantities. Plums are scarce and prices high. Cherries, with the exception of those from Oregon, are about out of market. Currants are still abundant. Apricots and Blackberries are plenty. Limes have doubled in price during the last two weeks. Full information of Fruit prices may be found in our tables.

Fish—Fish are again selling at high prices, as noted below.

Hops—There is nothing new in the local trade. Emmet Wells reviews the New York trade for the week ending June 30th as follows:

Trade has quieted down considerably since our last, and little or no business will be done until after the 4th. The shipments to Europe this week are 200 bales, which just about offset the receipts. Prices are irregular and nominal. Crop reports, both foreign and home, are somewhat less favorable the past week. There appears to be a promature growth of vine in some of the districts of New York. In England, just the reverse state of things exist; there the vine is very backward and weak. The reports from Germany are also rather unfavorable for a large yield.

Oats—Oats are dull and prices are considerably reduced. We note sales: 500 sks new Feed, $1.70; 200 do old do, $1.90; 500 do do, $1.75, all half silver; 300 sks good old, $1.80, half silver; 300 sks fair new, $1.50; 600 do good do, 1.55; 600 do do, $1.60 per ctl, all half silver; 400 sks good new, $1.70, half silver; 200 do good old, $1.85; 200 sks old Feed, $1.75; 300 do new do, $1.45 per ctl, the latter silver; 500 ctls Feed, $1.70, half silver.

Onions—Onions are weak and plentiful, and prices have fallen to 75c per ctl for the best kinds. We note a sale of 30 sks Yellow Danvers at 75c. Other sales have been as low as 50@62½c.

Potatoes—We note a sale of 1,000 sks Half Moon Bay at $1.25. Early Rose sales at $1 per ctl. Early Southern Potatoes have sold at $50@60c per sk.

Provisions—The trade in Provisions is firm and active. As will be seen in our tables, fresh Beef and Pork have generally advanced. Smoked meats are selling in large amounts. One of the leading dealers in these goods tells us he never saw the trade so active as at present.

Poultry—But a few small changes in price are noted.

Vegetables—Nearly all kinds of vegetables are more plenty and cheaper. Full prices are given below. Lima Beans are fresh in the market and sell at 15c ₱ lb.

Wheat—There seems to be a general disposition to hold back from present prices, although some sales are made. We note the following: 200 sks good old Milling, $1.60; 650 do fair do, $1.50; 5,000 do good new Shipping, $1.50; 8,600 ctls old Sallnas at $1.50—sold last week, but not before reported; 2,000 do new Coast, $1.47½; 3,000 do do Shipping at $1.50; 13,000 ctls good new Shipping at $1.52½; 200 do at $1.45; 170 sks fair old Milling at $1.60; 2,000 sks new Shipping, $1.52½; 2,000 do fair old Stockton, $1.55; 250 do inferior old, $1.45; 1,000 ctls new Superfine at $1.40 per ctl.

Wool.—We hear of no change in the local trade. Sales are reported of 105,000 lbs at 14@18c. The New York market is telegraphed as follows:

NEW YORK, July 10th.—The demand for Spring California Wool has been rather limited, but reports from Boston state that sales have been made of some 25,000 bales at prices ranging from 18c to 25c. All descriptions of foreign clothing material continues dull, but holders have refused to grant further concessions. Some small lots of new Ohio Fleece have been received of a quality reported as fully equal to that of last year. After a suspension of two days, business was resumed on Wednesday morning, but there were few buyers in town, and since then the market has been quiet. This was anticipated by the dealers generally, for such is usually the case after all holidays, and it is often a week or two before it has fully recovered from the interruption. There has been no change in values for stocks generally are light—35@39c for X and above. Sales for the week were 70,000 pounds Spring California at 21@22c; 8 000 pounds do Fall, 14c; 29,000 pounds Eastern Texas, 17@23½c; 10,000 pounds X and above Ohio, 35c; 110,000 pounds Mexican, 15c, and 400 bales Donskoi and 10,000 pounds domestic Noils, on private terms.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., July 12, 1876.

BEANS.

Bayo, ₱ ctl	4 50	@	5 00
Butter	1 90	@	2 25
Pea	1 92½	@	—
Pink	2 50	@	3 01
Sm'l white	1 60	@	1 90
Lima	1 90	@	2 00

BROOM CORN.

Common, ₱ lb	2	@	3
Choice, do	4	@	5

COTTON.

Cotton, ₱ lb	15	@	18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	25	@	30
Point Reyes	30	@	32½
Firkin	22	@	26
W'st'n Reserve	16	@	20
New York	—	@	—

CHEESE.

Cheese, Cal., lb	10	@	15
do Old	—	@	—
Eastern	—	@	—

EGGS.

Cal. fresh ₱ doz	36	@	40
Ducks'	—	@	30
Oregon	22½	@	25
Eastern	21	@	—

FEED.

Bran, per ton	—	@	18 50
Corn Meal	27 50	@	28 00
Hay	7 00	@	13 00
Middlings	24 00	@	—
Oil cake meal	—	@	37 50
Straw, ₱ bale	55	@	60

FLOUR.

Extra ₱ bbl	5 50	@	6 00
Superfine	3 50	@	4 75
Graham, ₱ bbl	5 50	@	—

FRESH MEAT.

Beef 1st quality lb	6	@	8
Second do	4½	@	5½
Third do	3½	@	4
Spring Lamb	4½	@	5
Mutton	2½	@	3
Pork, undressed	6¾	@	7
do, dressed	9½	@	9¾
Veal	5	@	5½
Milk Calves	5½	@	7

GRAIN, ETC.

Barley, feed ctl	87½	@	1 00
do brewing	1 05	@	1 15
Chevalier	1 25	@	1 35
Corn, White	1 15	@	1 20
do Yellow	1 15	@	1 17½
Oats	1 25	@	1 80
Milling	—	@	1 90
Rye	1 80	@	1 85
Wheat shipping	1 50	@	1 55
do milling	1 60	@	1 65

HIDES.

Hides, dry	10	@	13
do wet salted	6	@	6½

HONEY, ETC.

Beeswax, per lb	25	@	27½
Honey in comb	12½	@	15
do Strained	8	@	10

HOPS.

New crop	10	@	13

NUTS—Jobbing.

Almonds, hd sh'l ₱ lb	8	@	10
do, soft sh'l	18	@	20
Brazil do	14	@	16
Cal. Walnuts	12	@	14
Chile Walnuts	11	@	12½
Peanuts per lb	9	@	10
Filberts	15	@	16
Pecanuts	17	@	18

ONIONS.

Union City ctl	—	@	—
Stockton	—	@	75
New Red	50	@	75
Silver Skins	62½	@	75

POTATOES.

Petaluma, ₱ ctl	—	@	—
Salt Lake	—	@	—
Humboldt	—	@	—
Early Rose new	1 00	@	—
Sweet	5	@	6
New	1 12½	@	1 25

POULTRY & GAME.

Hens, per dz	8 00	@	9 00
Roosters	7 50	@	9 00
Broilers	3 50	@	6 00
Ducks, tame, dz	5 00	@	7 00
do Mallard	—	@	5 00
do Canvass	—	@	5 00
Geese, per pair	1 50	@	2 00
Wild Gray dz	3 00	@	4 00
White	1 50	@	2 00
Turkeys, Live, lb	15	@	22
do Dressed	22	@	24
Quail, per doz	—	@	—
Snipe, Eng., doz	—	@	—
Doves, per dozen	50	@	57
Rabbits	1 00	@	1 00
Hare, per doz	1 50	@	2 10

PROVISIONS.

Cal. Bacon, L't, lb	16	@	17
do Medium	15½	@	16
do Heavy	—	@	15
Lard	14	@	16½
Cal. Smoked Beef	10	@	12½
Eastern do	—	@	10
East'n Shoulds	—	@	10
Hams, Cal	14	@	14½
do Armour	14½	@	15
do Worster's	—	@	17
do Dupee's	16	@	16½
do Davis Bros'	—	@	17

SEEDS.

Alfalfa, Chile lb	8	@	10
do California	12	@	13
Canary	18	@	20
Clover Red	—	@	22
do White	50	@	55
Cotton	6	@	10
Flaxseed	—	@	3¼
Hemp	12½	@	—
Italian Rye Grass	25	@	30
Perennial do	20	@	30
Millet	10	@	12
Mustard, white	3	@	3½
do, Brown	3	@	3½
Rape	7	@	9
Ky. Blue Grass	30	@	—
do 2d quality	29	@	—
Sweet V Grass	—	@	75
Orchard do	30	@	35
Red Top do	—	@	25
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	20	@	25
Timothy	10	@	13

TALLOW.

Crude, ₱ lb	6½	@	—
Refined	8½	@	9

WOOL, ETC.

SPRING—

Seedy, ₱ lb	9	@	12½
Choice long free	17	@	18
do Northern	19	@	21
do short	13	@	18½
Burry	10	@	14
Oregon	—	@	—

RETAIL GROCERIES, ETC.

WEDNESDAY, M., July 12, 1876.

Butter, Cal. ch'ice	30	@	37
Cheese, lb	18	@	20
Eastern	25	@	30
Lard, Cal., lb	—	@	18
Eastern	20	@	25
Flour, ex. fam, bl	6 25	@	6 50
Corn Meal, lb	2½	@	3
Sugar, wh. crsh'd	12½	@	13½
do lt. brown, lb	8	@	9½
Coffee, green, lb	23	@	35
Tea, fine blk, 50, 65, 75		@	1 00
Tea, finest Jap, 55, 75, 90		@	1 10
Candles, Admant'e	15	@	25
Soap, Cal., lb	7	@	10
Rice, lb	8	@	12½
Yeast Powders, dz	1 50	@	2 00
Bowen Bro. large can per doz	5 00	@	—
Small, do	2 50	@	—
Bowen's Cream Tartar lb	—	@	75
Cal'd Oysters, dz	2 00	@	3 50
Syrup, S F. Gol'n	75	@	1 00
Dried Apples	10	@	12½
Dr'd Ger. Prunes	12½	@	14
Dr'd Figs, Cal	9	@	10
Dr'd Peaches	11	@	15
Oils, Kerosene	30	@	40
Wines, Old Port	3 50	@	5 00
do Fr. Claret	1 00	@	2 50
do Cal., dz bot	3 00	@	4 50
Whisky, O.K. gal	3 50	@	5 00
Fr. Brandy	4 00	@	8 00

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., July 12, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M	—	@	—
Tahiti, do	25 00	@	30 00
Cal. do	—	@	—
Limes, Mexican, ₱ M	25 00	@	—
Malaga Lemons, ₱ bx	—	@	—
Cal. ₱ 100	2 00	@	2 50
do Sicily ₱ b'x	12 00	@	—
Bananas, ₱ bnch	2 50	@	3 50
Oocoanuts, ₱ 100	7 00	@	8 00
Pineapples, ₱ dz	—	@	—
Apples, ₱ box	50	@	1 25
do Choice	—	@	—
Apricots, lb	3	@	4
Blackberries	5	@	7
Cherries, ₱ lb	6	@	12½
Plums, lb	4	@	8
Figs	3	@	5
Gooseberries	5	@	—
Huckleberries	—	@	—
Strawber's ₱ case	5 00	@	7 00
Pomgranates	—	@	—
Raspberries	12½	@	20
Currants, ₱ case	1 50	@	3 00
Cranberries ₱ bbl	13 00	@	14 00
Peaches, ₱ box	— 25	@	— 60
Pears, ₱ bx	—75	@	1 25
do Choice	—	@	—
Crab apples, ₱ bx	—	@	—

DRIED FRUIT.

Apples, ₱ lb	9	@	12½
Pears, ₱ lb	8	@	13
Peaches, ₱ lb	12	@	12½
Apricots, ₱ lb	14	@	15
Plums, ₱ lb	4	@	5
Blackberries	3	@	4
Currants	9	@	10
Figs	3½	@	4
Peaches, unpeeled	5	@	6
do peeled	10	@	12
Pears	6	@	7
Plums, pitted	10	@	12
Prunes	12½	@	17
Citron	28	@	30
Zante Currants	9	@	10

VEGETABLES.

Asparagus ₱ box	2 50	@	3 00
Beets ₱ ctl	—	@	75
Cabbage, ₱ 100 lbs	62½	@	75
Carrots, ₱ 100 lbs	75	@	—
Cauliflower, doz	50	@	75
Celery, doz	50	@	—
Garlic, ₱ lb	3½	@	2
Green Peas ₱ lb	2½	@	3
Green Corn ₱ doz	7	@	20
Sum'r Squash ₱ box	—	@	50
Marro'fat Squash, tn	—	@	—
Artichokes, ₱ doz	—	@	—
String Beans, ₱ lb	4	@	—
Lima Beans	—	@	15
Parsnips	—	@	—
Shell Beans	—	@	—
Peppers, green, lb	—	@	25
Okra	—	@	—
Cucumbers, ₱ box	50	@	75
Tomatoes, box	1 00	@	3 00
Egg Plant, box	—	@	1 50
Rhubarb lb	1	@	1½
Lettuce, doz	12½	@	—
Turnips, pr ctl	50	@	62½

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., July 12, 1876.

BAGS.

Eng. Stand Wbt	13½	@	—
Nevills & Co's Hand Sewed	13½	@	—
24x36	—	@	—
24x40	—	@	—
Machine do 24x40	—	@	15½
" " 22x40	14½	@	—
" " 22x40, 14	14	@	—
" " 22x36, 13	13	@	13½
Flour Sacks ½s	9½	@	11
" " ¼s	6	@	7
" " ⅛s	4½	@	5
Hessian 60-in	12¼	@	14½
do 45-in	—	@	10¼
do 40-in	9½	@	9¾
Wool Sacks, 3¼ lbs	45	@	50
do 4 "	50	@	52½
Stand. Gunnies	14	@	15
single seam do	—	@	—
Bean Bags	7½	@	8

CANNED GOODS.

Asst'd Pie Fruits in 2½ lb cans.	2 75	@	3 00
do Table do	3 75	@	4 25
Jams & Jellies	1 25	@	—
Pickles ½ gl	—	@	3 50
Sardines, qr box	1 65	@	1 90
do hf boxes	3 00	@	—

COAL—Jobbing.

Australian, ₱ ton	8 75	@	9 00
Coos Bay	—	@	9 00
Bellingham Bay	—	@	9 00
Seattle	—	@	9 00
Cumberl'd	—14 00	@	16 00
Mt. Diablo	5 75	@	7 75
Lehigh	—	@	22 00
Liverpool	10 00	@	11 00
West Hartley	—	@	14 00
Scotch	9 00	@	10 00
Scranton	13 00	@	16 00
Vancouver's Isl.	10 50	@	2 00
Charcoal, ₱ sk	75	@	—
Coke, ₱ hbl	—	@	60

COFFEE.

Sandwich Island	—	@	21½
Costa Rica per lb	22½	@	—
Guatemala	—	@	22½
Java	—	@	30
Manilla	—	@	21½
Ground in cs	25	@	—
Unicorn	27	@	—

FISH.

Sac. Dry Cod, new	—	@	6½
cases	6	@	7½
do boneless	8½	@	10
Eastern Cod	8	@	8½
Salmon in bbls	7 25	@	—
do ½ bbls	3 75	@	4 00
do 2 lb cans	2 01	@	—
do 1 lb cans	1 35	@	—
do Col. R. ½ b.	5 00	@	5 50
Pick. Cod, bbls.	22 00	@	—
do ½ bbls	11 00	@	—
Mack'l, No. 1, ½ bls	11 00	@	—
" Extra	—	@	12 00
" in kits	1 90	@	2 25
" Ex mess, 3 lb	3 50	@	4 00
" Ex mess, ½ bs	—	@	12 00
Pic'd Herr'g, bx	3 00	@	3 50
Bos. Sm'k'd Her'g	40	@	50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl	2 00	@	2 25
Cement, Rosendale, do	2 75	@	3 50
do Portland do	4 75	@	5 50
Plaster, Golden Gate Mills	3 00	@	3 25
Land Plaster, ₱ ton	10 00	@	12 50

MISCELLANEOUS.

Pulu	—	@	7½

NAILS.

Assorted size, keg	3 75	@	4 00

OILS.

Pacific Glue Co	—	@	—
Neat F't No. 1	1 00	@	90
Pure	—	@	—
Castor Oil, No. 1	—	@	1 15
Baker's A A	—	@	1 15
Cocoanut	52	@	55
Olive Plagniol	5 50	@	5 75
do Possel	4 75	@	5 00
Palm lb	9	@	—
Linseed, raw	—	@	70
do boiled	—	@	75
China nut in cs	65	@	—
Sperm, crude	1 60	@	1 65
do bleached	1 90	@	2 25
Coast Whales	47½	@	50
Polar, refined	—	@	50
Lard	—	@	1 20
Cleophine	—	@	28
Devoe's Brill't	25	@	27
Long Island	—	@	25
Eureka	26	@	27
Devoe's Petro'm	25	@	27½
Barrel kerosene	23	@	25
Olive	—	@	3 50
Downer Kerose'e	—	@	37½
Elaine	37½	@	—
Gas Light Oil	23	@	25

PAINTS.

Pure White Lead	9¾	@	10¼
Whiting	—	@	1¾
Putty	4	@	5
Chalk	—	@	1½
Paris White	—	@	2½
Ochre	—	@	3½
Venetian Red	—	@	3½
Red Lead	10	@	11
Litharge	10	@	11
Eng. Vermilion	—	@	1 25
Averill Chemical Paint, per gal. White & tints	2 00	@	2 40
Green, Blue & Cb Yellow	3 00	@	3 50
Light Red	3 00	@	3 50
Metallic Roof	1 30	@	1 60

RICE.

China No. 1	5½	@	6
Hawaiian, ₱ lb	7½	@	7¾
Carolina, ₱ lb	10	@	—

SALT.

Cal. Bay, per ton	10 00	@	14 00
do Common	5 00	@	7 00
Carmen Island	12 00	@	15 00
Liverpool fine	22 50	@	25 00

SOAP.

Castile ₱ lb	10	@	11¼
Common brands	4½	@	6
Fancy do	7	@	9

CANDLES.

Grant's	16½	@	17
Mitchell's	20	@	22

SPICES.

Cloves ₱ lb	45	@	47½
Cassia	23½	@	26½
Citron	28	@	30
Nutmeg	95	@	97½
Whole Pepper	14¾	@	14½
Pimento	16	@	17½
Gr'nd Allspice	2	@	12
do Cassia do	—	@	1 50
do Cloves do	—	@	1 50
do Mustard do	—	@	1 20
do Ginger do	—	@	1 00
do Pepper do	—	@	1 00
do Mace do	—	@	2 00
Bowen's Pure Ground ₱ lb	—	@	50

SUGAR, ETC.

Cal. Cube per lb	—	@	12¾
Oirole A crushed	—	@	12
Powdered	—	@	12¼
Fine crushed	—	@	12
Granulated	—	@	11¾
Golden C	—	@	10½
Hawaiian	10	@	11
Cal. Syrup in kgs	—	@	62½
Hawaiian Molasses	25	@	27½

TEA.

Oolong, Canton, lb	19	@	25
do Amoy	28	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	40
do Pingsuey	45	@	80
do Moyune	60

Nurserymen.



SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Ever green Shrubbery.

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Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Araucarias, Pines, Cypress, etc.; Fine assortment of Camelias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.

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SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

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(Successor to E. E. Moore).

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RUTA BAGA and other TURNIPS

Of our own Raising. Our Motto is

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Farmers can obtain supplies by Mail direct, post paid, at small charge. Send Postal Card for List of Prices.

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☞ Illustrated Catalogue free on application.

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FRUIT JARS.



FRUIT IN CONTACT WITH GLASS ONLY.

Elastic Pressure by Spring Clamps on Shoulder Joint.

The Screw Clamp turns freely on Cover and Inclines, and tightens the Jar quickly and is Easily Tested.

Easily opened and closed, without wrench or tool.

Every Jar being inspected, there is no trouble in using.

The Handsomest and Best Glass Lid Fruit Jar.

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FRUIT DRIER.

A New Invention, although Thoroughly Tested, which Combines all the Improvements.



We warrant a complete success in drying all sorts of fruit and vegetables as thoroughly and more expeditiously than any other Machine, for less amount of fuel by 35 per cent, as we utilize all the waste heat which is lost by all other Machines.

Its simplicity of construction and its cheapness will put it in the hands of all who may want a Drier. We don't pretend to ask from $1,200 to $1,500 profit and royalty. We are willing that producers should make the profit and keep it. The Machine has been tested to our entire satisfaction, and met our most sanguine expectations. The fruit dried by our Drier was fully as good as that dried by any of the renowned Driers. We would say to all who contemplate putting up Machines, that we can make it a decided inducement for all such to give us a call, as we want to sell the entire right of the United States, State, County or Local, at such prices that the poor as well as the rich can use them. The capacity of the Machine will be in proportion to the size, ranging from 100 to 500 feet drying surface. This dryer was more fully illustrated and described in the RURAL PRESS of May 20th, 1876. Communications to T. F. BACHELOR, 622 Clay St., S. F., or to J. W. CASSIDY, Petaluma, Cal., will be thankfully received and promptly attended to.

NEW

Agricultural Implement Depot

—AT—

Watkins & Scott's Alameda Foundry,

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Agent for Walter A. Wood's New Iron Mower, Reaper, and self-Binder, Haines' Single-Gear Header, Improved Sweepstakes Thresher, and Silky Rakes; also, the Celebrated Revolving Sulky Rake, and the Champion Revolving Rake, and the well known Tiffin Revolving Rake; La Belle Farm Wagons, and Spring Wagons of all descriptions.

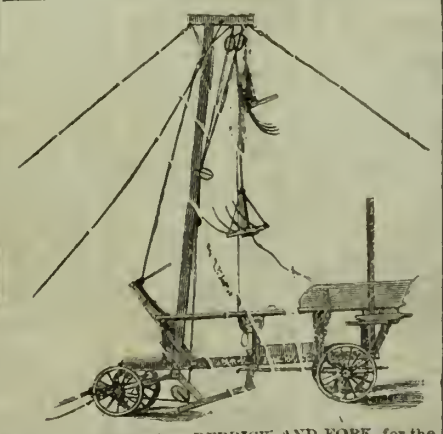
The attention of farmers is particularly called to the

New Revolving Sulky Rake.

It has met an enormous sale at the East and in and around Sacramento.

Also, all kinds of new and second hand machinery for sale. Farmers and others will find it to be to their interest to call on me before buying, as I am selling everything very low for cash.

ORRIN TABER.



This cut represents a DERRICK AND FORK, for the purpose of supplying GRAIN IN THE STRAW TO A THRESHING MACHINE. The success of this machine is beyond question. It is a saving of EIGHT OR TEN DOLLARS PER DAY over the hand fork mode. We also make DERRICKS for the purpose of STACKING HAY OR GRAIN, which meet with great favor everywhere. Manufactured by MATTESON & WILLIAMSON, Stockton, Cal.

TABER'S

IMPROVED HAY FORK.

[Patent Applied For.]

Is the most perfect, and easiest operating derrick fork in existence. One man can operate it with the greatest ease, as the strain of lifting the fork causes it to grapple its load automatically, while a pull upon the releasing cord, when the fork has been lifted to the desired place, causes it to drop the load instantly.

There is nothing in the construction of this Fork that is liable to get out of order.

Farmers will do well to examine this Hay Fork, as it saves expense and greatly facilitates the handling of hay, grain and straw. Communications addressed to

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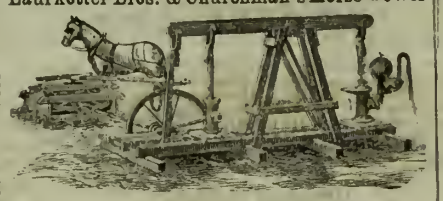
will receive Prompt Attention.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power



[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

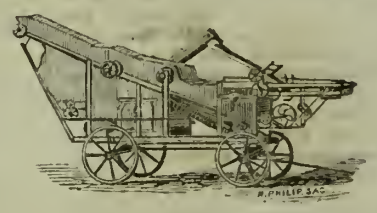
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PATENT FEEDER & ELEVATOR



For Threshing Machines.

The most successful Automatic Feeder yet invented; it has had the severest tests in all kinds of grain, long, short, wet or weedy, during the past six years. There are over two hundred in use in the Sacramento valley. I will give full guarantee to purchasers. Send for special circular. Address,

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Woodland, Yolo County, California.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

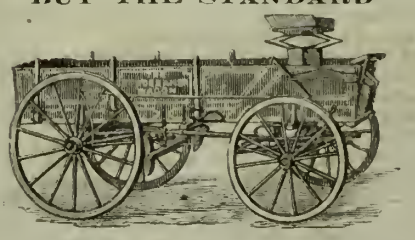
Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

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We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

E. F. AMES, Gen. Agent,

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OAKLAND

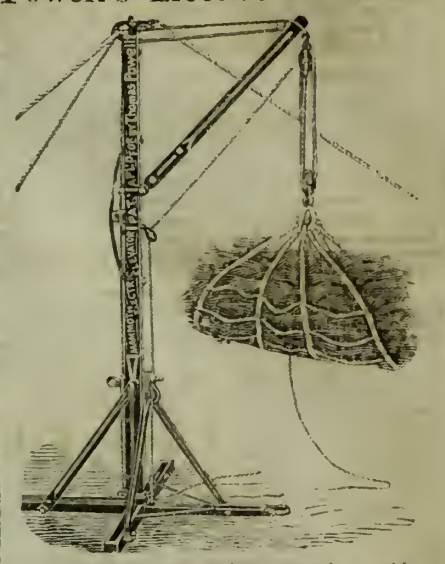
Spring Balance

Gang Plow.



Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal Established in 1858. Send for Circular and Price-list

Powell's Electric Elevator.



The great labor, time and money saving machine. This machine is used in the harvest field to elevate grain, hay and straw from the header box to the stack only a few seconds being required to elevate a large four horse load. The load is taken up in a center opening net or sling. Patented April 20th, 1875. For description, circular and price list, address

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Or H. C. SHAW PLOW CO., Stockton, Cal.

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Portable Family Fruit Drier.

$65.00 to $75.00.

The Best, Cheapest and Only Practical Portable Family Fruit Drier Made.

It will do as good work as any Drier. It can be used in connection with the cook stove or any small stove; may be run in the house or out of doors. Is very compact and plain in its construction and simple in its management. A child can attend to it.

With this Drier every family can save their surplus fruit, and put it in condition to bring the cash or trade at the store. We have the world for a market; last year's stock is exhausted. There will be a ready sale at good prices for all you can make.

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For Threshing Machines,

Is the only Feeder manufactured that feeds without moving all the straw in a body, consequently gives a more regular feed than it is possible to obtain with a draper feeder; it feeds the whole length of the cylinder; it is easily changed to feed fast or slow as desired; saves the labor of two men and does not require an experienced tableman to feed it. The separator needs no alteration with the exception of the removal of feed board to secure it in position, and does not have to be taken off when moving. It requires but little power to run it, and has no complicated parts liable to get out of order. Its success having been fully demonstrated, I cordially invite all parties interested to call and judge of its merits. For full particulars address

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SEPARATORS AND POWERS.

Chicago Pitts, with End and Side Shake, with Pitts' 10 and 12 horse-powers, the best and strongest machines in market.

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ENRIGHT'S STRAW BURNER, the latest and best for utility and economy. Capacity, 15 to 18 horse. MANSFIELD PORTABLE ENGINES, for wood or coal; 10 horse.

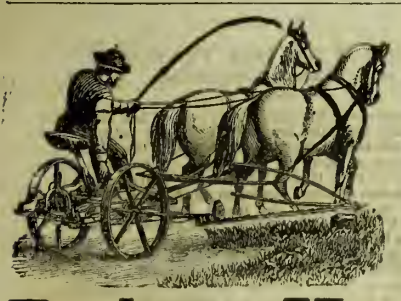
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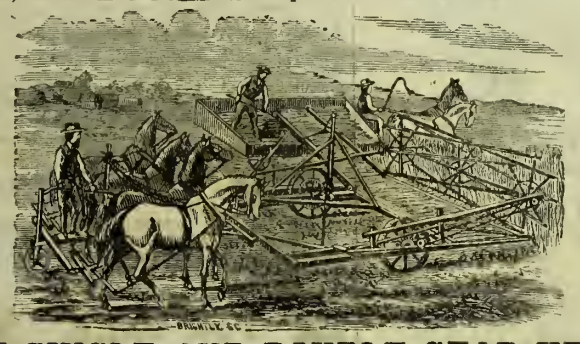
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The most perfect, the most reliable, and most durable Harvester ever built.

12,000 in use on the Pacific Coast. Every farmer using them will bear testimony to their unequalled merits. They will do better work and will outlast two of almost every other make of machine.

☞ **Farmers, BUY A BUCKEYE in preference to all others.**

With Adjustable Reels. IRON WHEELS.



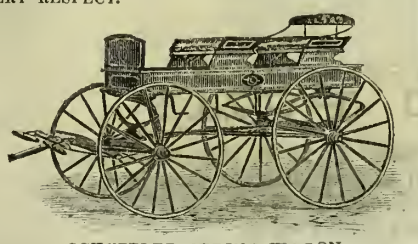
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HAINES' SINGLE AND DOUBLE GEAR HEADERS.

We offer a Header to farmers this season improved far in advance of any Header in the market and one we can WARRANT IN EVERY RESPECT.



SCHUTTLER FARM WAGON.



SCHUTTLER SPRING WAGON.

Superior in strength, durability, and lightness to any wagon manufactured. Warranted to run lighter and wear longer than any wagon in America.

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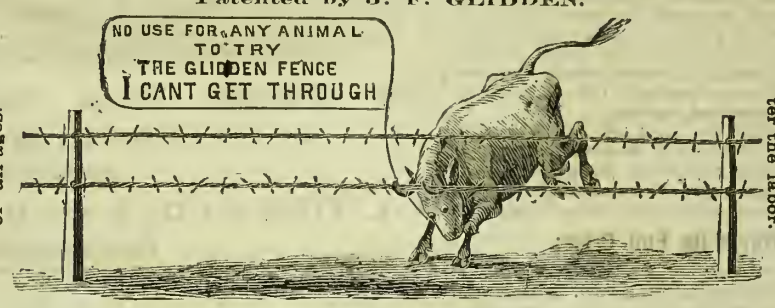
San Francisco and Sacramento, Sole Agents for the Pacific Coast.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



About one-half the cost of any other good fence; and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8. Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

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General Agents for the Coast. K and 10th Streets, Sacramento.

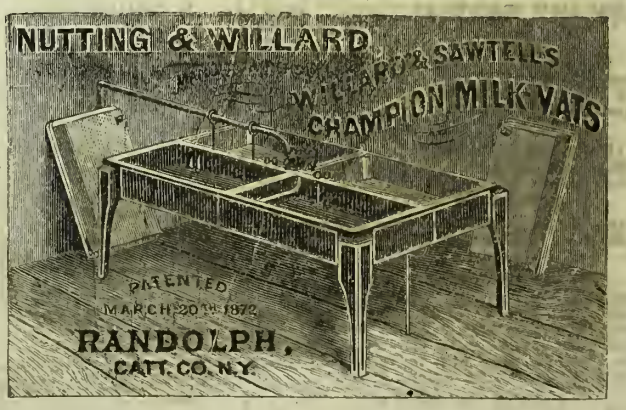
THE CHAMPION MILK PANS.

No.	Space each set occupies.	Cap'y of each Pan.*	Dpth
0	5 ft 6 in. long 3 " wide	12 gal'ns.	6 in.
1	6 ft 10 in. l'ng 3 " 10 " wide	18 gal'ns.	6 in.
2	7 ft 8 in. l'ng 4 " 2 " wide	25 gal'ns.	6½ in.
3	8 ft 7 in. l'ng 4 " 8 " wide	35 gal'ns.	7 in.
4	9 ft 8 in. l'ng 4 " 11 " wide	45 gal'ns.	7½ in.
5	9 ft 11 in. l'ng 5 " 4 " wide	55 gal'ns.	8 in.
6	9 ft 11 in. l'ng 5 " 4 " wide	65 gal'ns	9½ in.

*Four pans in set.

NUTTING & WILLARD,

SACRAMENTO, CAL.



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All Departments Open for Youth of Both Sexes. Next term commences Thursday, August 3d, 1876.

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A. E. KELLOGG, }

THE LAMB KNITTING MACHINE

Is the Only Machine that can Knit all sizes of work, and narrow and widen it; that can shape and complete, without hand-finishing,

Seamless Hosiery, Gloves and Mittens, or knit them in all sizes; or knit ribbed, double and fancy stitches for Underwear, Jackets, Shawls, Scarfs, etc. It knits over 25 different kinds of garments. Over 100 per cent. profit in manufacturing knit goods. Send for Illustrated circular. Address,

Lamb Knitting Machine Co.,

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Patent Riveted

Clothing,

14 & 16 Battery St.,

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These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

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BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER,

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Blank Books Ruled, Printed, and Bound to Order

TO LEASE,

Valuable Farming Lands,

NEAR SAN FRANCISCO.

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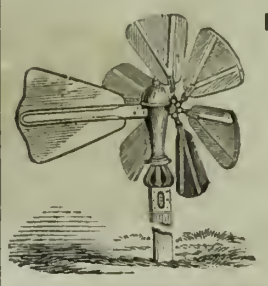
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PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, JULY 22, 1876. [Number 4

The Blue Jay.

We give our readers on this page, an engraving of a blue jay—a bird as widely known as he is injurious. If "handsome is that handsome does" be true of birds, then the jay is a model of ugliness in spite of his bright colors. Every man's hand is raised against him for he is a destroyer of fruit, and grain, and nnts, and is a devonrer of eggs and the yonng of birds which are of real value to the fruit grower and farmer. In spite of the guns and traps which beset his life this worse than worthless bird is still abundant and seems to thrive in the adversity which farmers endeavor to visit upon him.

Of the ravages of the hird on this coast many of our readers know from experience. The latest written indictment against him is from the pen of Dr. F. S. Matterson of Coqnille, Oregon, which we are pleased to qnote as follows:

This bird frequents both the forests and the fields. He is a noisy thieving pest, a marauding vagabond of the first water. He is a voracious glutton, and like the "shanghai chicken," he "eats most anything that he can overhanl." He opens a nut by holding it in his claw, placing it on the limb he is perched on, rising to his full hight and bringing down the sharp point of his beak in a steady succession of vigorons blows until the shell is broken. He pnlls np the farmer's young wheat, corn, and peas in early spring, steals the eggs of the hens in snmmer, and forages on the granaries at all times. He robs the nests and eats the young of birds weaker than he is, and makes himself obnoxious generally. He is also a braggart and a coward; and when frightened from his peculating transactions, he flies rapidly to the cover of the nearest thicket, calling out londly and defiantly, "kwak, kwak, kwak, kwak, kwak," bnt as soon as concealed from view he remains silent. He does not sing, but his notes are many and varied. He cries "jay, jay," with much distinctness; he also says, "steal it, steal it," very plainly; and will do as he says if opportunity offers. In summer he retires to the deep recesses of the forest to breed, retnrning after the incnbating season, accompanied by his young family, to pursne his free-booting operations with undiminished energy.

His progeny take aptly to the ways of their father, and soon become experts at thieving and plundering. As may be inferred, he is not a favorite, and is remorselessly pnrsued by the settlers with gnns, traps, poisoned grain, and any other agency which promises his destruction; but for every one killed 20 seem to come to the funeral. And so the war of extermination goes on, and the omnipresent jay appears still as numerous, and his capacity for getting away with the farmer's crops and the singing bird's eggs as great as ever.

Effect of Bluestone on Wheat and Cockle.—We notice by the *Rural Carolinian* that W. L. Anderson has been trying some experiments with soaking wheat, cockle and cheat seed in a bluestone solution for the pnrpose of determining the effect on the viability of the different seeds. Putting a quantity of each in a solntion, he planted ont some day after day nntil the seed was all planted. He found that the cockle seed was killed after soaking seven days bnt the wheat and cheat seed germinated even after 21 days soaking. He concludes that it is not dangerons to leave the wheat soaking in the bluestone if anything prevents immediate sowing.

A Tide of Immigration Promised.—The Los Angeles *Express* announces that Mr. H. W. Butler, of the firm of Butler & Severance, who has returned from a trip to the East, brings the gratifying information that there will be a very large immigration movement toward Los Angeles this fall. He says that he conversed with people everywhere who had made up their minds to come here and settle in a portion of the United States which has a future exempt from the financial difficulties and business stagnation, and from the extreme and widespread distress, which prevail in the Eastern States.

Stump Removing With Dynamite.

We read in one of onr interior exchanges of the trouble which was experienced in removing some large redwood stumps, some times 20 kegs of powder being exploded under a single stump. Our memory is thus freshened by accounts in onr English exchanges of a pnblic trial which was made of the recently invented explosive, dynamite. Although this substance has been in use for some little time as a blasting agent, we are not aware that it has been tested for farmers' use in stump pulling. A number of experiments were made in the presence of a committee of farmers. Several stumps which had been digged up were split into stove wood with a few ounces of dynamite. The experiments were concluded by blowing bodily ont of the gronnd a large intact oak root; this was done by making a crowbar hole between the ties or manor roots and insorting a charge of dynamite under the center. On the shot being fired, the root was lifted completely from its bed.

The House has granted a pension of $50 per month to the widow of General Custer.



THE BLUE JAY.

An Improvement in Wool.

It is encouraging to see a gleam of light fall upon the gloom which has enshronded the wool interest. We are informed by telegraph from Boston and New York, as will be seen by reference to onr market page, that the woolen manufacturers have decided that the wool market has touched bottom and determined to lay in their snpplies. The result was an unusual activity in California wool, and stocks are now held at an advance over last week's prices. It is to be hoped that the market has indeed tonched bottom and will revive. There seems some reason to believe so, for at the public sale of woolen goods recently held, an nnexpected demand was disclosed, and if the Eastern people have really strnck the bedrock in the wardrobes, which have been so carefully guarded since the hard times began, the pnrchasing will commence anew and the call for the sheep will grow louder and louder.

The deaths in New York last week were 1,296, against 858 for the previons week. The increase is attribnted to the very hot weather.

A State Society of Beekeepers.

We noticed recently that Mr. Levering, of Los Angeles, proposed the formation of a State beekeeper's society. We have been familiar with the workings of Eastern apiarian societies and know them to be agencies of much practical value to the members and to all who have read their published proceedings. The Northeastern society, of which the late Mr. Qninby was president for a nnmber of years, has snceeded in drawing out much practical and progressive information. We notice by the Los Angeles *Herald* that Mr. J. P. Bruck, of that place, asks that the Rural Press be called upon to ascertain the sentiment of the beekeepers of the State concerning the proposition to form a California society. This we nndertake cheerfnlly. We cannot tell what wonld be the prospect for membership, bnt of one thing we are snre and that is, that an industry which is so widely influenced by conditions and which depends for success upon the greatest perfection of skill and nnderstanding which can be attained, must be greatly benefited by an organized effort for full possession of these valuable acquisitions. The market problem, too, is one which needs the most carefnl investigation by all interested. Upon the face of it the proposition seems to ns a good one. At all events, as Mr. Brnck says below, it deserves a careful consideration. We quote Mr. Bruck's letter to the Los Angeles *Herald* and invite onr apiarian readers to a full expression of views upon the points mentioned:

As you have invited discussion on the proposition of holding a State convention of beekeepers, allow me to offer the following amendment: California is so large a State that we are unacquainted with the extent and condition of the honey producing indnstry in those portions distant from ns. We are, furthermore, ignorant of the character of the men engaged in the business. We know not if there is snfficient of those that possess a spirit of inquiry, or the means of imparting information necessary, to make any convention successful. We are but little better acquainted with onr nearest neighbors, but we know that the interest of San Diego, San Bernardino, Ventura and Santa Barbara counties are identical with our own; our climate being so near alike; everything relating to the practical as well as theoretical part of onr calling is of like valne and importance to each. It is only after a long struggle for life that our own county society has at last succeeded in placing itself upon a footing where it is alike profitable, as well as agreeable, for every beekeeper of our county to attend. Wonld not the next safest step be to organize a district society or convention of the above named counties and our own; of those, namely, whose interests and wants are the same?

Though I have little hope of soon seeing a State convention in our State of magnificent distances, yet I think the proposition worthy of discnssion, for the purpose of drawing out the beekeepers of different sections of the State, that we may learn more of the spirit that animates them.

Let the proposition be pnblished in some central organ, snch, perhaps, as the Pacific Rural Press, so that we may see what favor it meets with elsewhere.

I think likewise that the time of meeting should be later than October, even for a district convention. To make it a snccess it wonld be necessary that a committee should arrange and publish a programme beforehand of the qnestions and propositions to be deliberated on, so that all might come prepared for thorongh work.

Lime for Weevil.—A correspondent of the *Country Gentleman*, writes as follows: Some years ago hearing complaint of weevil in wheat about the close of harvest, when I was ricking my wheat, I got fresh slacked lime and threw over the rick in building it, laying two conrses of sheaves, then lime sufficient to whiten the stack. There was no weevil in my wheat. A neighbor who threshed his wheat from the shock, came to me a few days after and said he shonld lose his wheat, for it was alive with weevil. I told him to throw lime over it, and shovel it through his wheat, which he did. Two days after there was not a weevil to be seen in it.

CORRESPONDENCE.

Dutch Flat.

EDITORS PRESS:—Say what you will, there is something in a name. In boyhood I read a novelette, entitled "Bridget." The very announcement of the name of the heroine grated harshly on my ears. It was distasteful almost to disgust. The story advanced step by step. In colors the most glowing and in language both chaste and fascinating, it unfolded the outlines of a character unsurpassed for grace, beauty and loveliness. Prejudice gradually faded away amid the brighter colors of the portraiture. The life-like picture of that charming creature

"Whose pure and eloquent blood
Spake in her veins, and so distinctly wrought
That one could almost say her body thought,"

soon made the name itself seem almost beautiful. So much by way of preliminary.

The name of this mountain town is by no means euphonious. There may be more music in other flats. But let no one imagine from the want of taste displayed, that there is an absence of it among the inhabitants. On the contrary, its streets are lined with the locust or other ornamental trees. Its private residences are generally decorated with taste and encircled with fruit trees and flowers, the climbing vine and often with the shady arbor. It is not situated as the name would indicate, on a level plain. It has a greatly varied landscape of hill and dale, mountain peak or deep ravine; on one part dotted over with grass plats, orchard, or vineyard; on the other, covered with tall waving pines, shading down the slopes into small trees at later growth.

Rosedale

Is the name given to the home of Mr. E. Chamberlain of this place, and well deserves it from the large number and great variety of roses that are almost constantly in bloom, the month of February being the only exception during the year; a fact somewhat remarkable in view both of the altitude and latitude. As an hour was most agreeably spent on the grounds among the fruits and flowers, a brief description will be attempted, as an illustration of what can be done in this locality within the short space of three years in the way of making an attractive home. Mrs. C., who is evidently a genuine lover of flowers, took the pains to show me a great variety, and called my attention to some that were both beautiful and rare. To give some idea of the extent (they are cultivated by two delicate hands,) there are at least 100 different varieties of roses, 50 or more of geraniums, from 25 to 30 kinds of lilies; 18 of the cactus, and every imaginable variety of pinks, pansies, verbenas, carnation pinks, etc., to the end of the catalogue. Among the rare plants was a crassula, blossom white, and very beautiful, from Central America; a variety of cactus from the Rocky mountains, and also some smaller varieties, as the serpent cactus, from its coiling form, the leaf cactus, very delicate, and in some respects resembling a small and tender leaf, and the coral cactus that spreads in small stems or branches, similar to the sea-built coral. There may be seen here a wild mountain lily, procured in this vicinity. It is now two years old and four feet high, with a beautiful delicate green foliage encircling the stock every few inches apart from near the ground to midway of the plant, and has 32 large yellow lilies, speckled with dark red petals, somewhat heavy, the flowers as a body forming a cone.

The spotted calla lily is a very rare plant; last year it bore two double lilies which is thought to be very unusual, as mention has been made in the RURAL of one double one as a rarity.

The night blooming cereus has a large white and very fragrant flower, about six inches in diameter, and blooms at three years of age. Its peculiarity consists in its blooming only once a year, between 12 and 1 o'clock at night.

So much space has been given to flowers that but little can be spared for fruits. Mr. C. has nine varieties each of pears, plums, cherries and grapes, and many choice varieties of apples, such as the Newtown pippin, Woods greening, Astracan, Spitzbergen, and the large gloria mundi, all of which do well in this climate, a ready market being found at home, or across the mountains. Peaches are said to be an uncertain crop, and some suggestions as to saving the fruit from frost would be acceptable.

Mr. W. W. Phillips,

The place adjoining, has a good orchard and garden, where most of the ordinary fruits, melons and vegetables are raised in some abundance, and of as good quality as in the valleys. Water for irrigation is found here, and generally throughout the mining regions, and for this reason there are probably more families in the mountains that cultivate little garden spots than can be found among the same number of farmers. We noticed some very large cabbage in Mr. P.'s garden, more particularly that of the mammoth Marblehead variety, which often weighs from 30 to 35 pounds. Of the smaller fruits, the most noticeable for thrift and size was the blackberry. He has 30 growing chestnut trees, besides some black walnuts and butternuts, which are thought to be well adapted to this soil and climate. He has 100 stands of bees, the honey as seen in the comb looking full as well as the best Los Angeles. Some new swarms had made for the season two boxes of honey, weighing each 32 pounds, and had swarmed again.

Mr. Bilto

Recently came here from Iowa, suffering greatly from asthma. He purchased 22 acres of orchard with some garden and pasture land. He is now making a nice living for his family, finding good and ready sale for all his produce at his own door, and what is better yet, finds himself wholly relieved if not effectually cured. I state these facts for the benefit of others, suffering in the same way.

Currant Catsup.

I have had the pleasure of tasting some excellent currant catsup; in fact it was so good that I thought it worthy of a place in the RURAL, under the head of "Domestic Economy," and secured the recipe from Mrs. Bilto for making it, as follows: Four pounds currant juice, one-half pound sugar, one tablespoonful ground cinnamon, one teaspoonful of cloves, one teaspoonful of black pepper, one pint of good vinegar. Boil all together until sufficiently thick. K.

POULTRY YARD.

Toulouse Geese.

EDITORS PRESS. — Having seen at the last Central New York poultry show, at Utica, a pair of splendid Toulouse geese only 10 months old, weighing sixty pounds, and having watched their growth from the egg, can fully approve the following description given by the *Poultry Nation*:

This variety is doubtless the largest known. Men in general have an aversion to geese and we don't blame them either, for what could the little, noisy, voracious, unruly common geese be considered on a farm but a nuisance, unless securely penned in some swampy field? This natural aversion we were not exempt from till we tried the magnificent Toulouse, and then it was changed to a liking for these geese. In appearance they are noble and dignified, and will thrive without water to swim in, if plenty be provided for drink. They are never unruly and can be fenced as easily as sheep; they are very quiet, not noisy, and extremely hardy. They are good layers, averaging about 40 eggs each in a season, and are seldom broody. If the old stock is not kept fat, and after spring opens only on pasture and vegetables without grain, nearly every egg will hatch.

The goslings are much stronger when young than the common, and are more easily raised than a pig. We use hens for hatching, and in summer have placed them on a fresh grass plat, and reared them without any mother. Their growth is so rapid that at four weeks old they will weigh from six to eight pounds each, and at three months from fifteen to eighteen pounds. At four weeks old they need no further housing, and can be placed in the open pasture to graze and shift for themselves, provided they have their regular meals of soft feed, which should be continued till they are three or four months old. In France and England, Toulouse geese are prized for their great size, excellent flesh, and abundant yield of soft, fine feathers, of which they will average about half a pound to the picking, and would be profitable for this purpose. In the severest weather they require no shelter, and we never feed mature birds any grain when the ground is bare, where they have access to pasture fields.

In color, geese and ganders are exactly alike, viz: a uniform, handsome grey, with breast and under parts of body a shade lighter. They are so mild and tractable in disposition, and possess so many good traits, that they are profitable where grain and grass are cheap. There are hundreds of waste places upon which, with a trifling expense, large numbers of these geese could be raised. To show how prolific they are, we have known for two seasons past one hundred goslings to be raised each year from the eggs of eight females, besides a large number being sold for hatching purposes. For all purposes, the Toulouse should be voted the goose of the period. G. G. W., Jr.

San Francisco, July 15th, 1875.

THE VINEYARD.

A New Grape Fungus.

At a recent meeting of the St. Louis Academy of Science, Dr. George Engelman spoke as follows: I exhibit to you to-day a grape fungus which is new to me, and seems to have been unknown to those grape growers with whom I have conversed. A yellowish-brown spot appears on the leaf, a few lines in diameter, on the upper side of which a good eye or glass will discover a number of very minute black specks. These are little globules, 0.13—0.15 line in diameter, which have a little opening at the top from which they emit their microscopical spores by the thousand. These oblong or oval spores are one-celled, and have a diameter of 0.013 or 0.014 line.

This fungus belongs to the family of *Coniomycetes*, and to that group which lives on decaying vegetable matter. Those yellow spots are the decaying substance; their vitality has been destroyed by the mycelium of the fungus; those still more minute threads which penetrate the tissue in every direction, exhaust and kill it, and thus form what we may call their fruit, the perithecia, which when mature emit the spores. It belongs to the genus *Phyllosticta*, of which at least 100 species, mostly leaf-inhabiting, are described, and may be called *Phyllosticta vitis*—grape leaf spot. Perhaps it it identical with *Septoria vitis, B. C.*

This parasite makes its appearance earlier than the others mentioned above, viz., just before the flowering period and during it, and attacks as far as known only the leaves, which, where abundant, it kills and thus cripples the plant; rarely it is found also on petioles and pedunclea. Dr. Wislizenus informs me that it attacks indiscriminately all grape varieties, but more the lower leaves of the stock than the upper ones; while he finds the phylloxera galls on the uppermost not yet full grown foliage.

The Phylloxera.

For some time past I have been diligently looking for some news regarding the phylloxera from your region; but thus far, I have seen no statement of any facts observed this year, as to the condition of the infested vineyards, and the progress, if any, made by the little pest since last year. I judge from this silence, as well as from the defiance hurled at the foe by your Santa Rosa neighbors, that the wet winter has been hard on the insect, and perhaps a season's partial respite may be granted to the vineyards, as was the case in France upon the heels of one of the most disastrous seasons. If this is so, there would be an excellent chance this year to circumscribe and exterminate the pest, if any concert of action or legislative aid had been obtained. As it is, probably nothing will be done in that direction, until the next dry season teaches us the same lesson that has proven so expensive elsewhere. In the meantime, however, it is to be hoped that sufficient interest in the matter will be taken by those having the opportunity, to observe the local habits of the insect; a knowledge of which may hereafter serve to counteract its progress. It is especially important to know whether and to what extent it assumes the winged form, which elsewhere appears most abundantly during July and August, and is chiefly instrumental in spreading the infection. The fly is very small, about the twentieth of an inch in length, but is easily distinguished from the gnat tribe by the great length of its four wings, which are habitually carried folded flat on the back, giving it somewhat the appearance of a very small winged ant, but with the copiously ringed (cross-wrinkled) abdomen of the common aphis or plant louse. Specimens of such diminutive insects may be easily secured and sent on slips of paper rendered sticky by mucilage, or even molasses, and a few sheets of the latter sort hung amongst the vines would soon on examination, determine whether or not the winged phylloxera exists in any given locality.

I most earnestly advise and request that attention be given to the matter during the two months before us, by all interested in viniculture. Even our Santa Rosa friends, with their commendable faith in the efficacy of good culture, can hardly afford to remain in the dark as to the precise *modus operandi* of any enemy that has shown itself so formidable at other points; and no one can think it prudent to to imitate the proverbial ostrich by trying to ignore the evil.

I shall be glad to receive specimens, and communications on the subject, and hope before many weeks to make a tour of observation personally.—*Eug. W. Hilgard, in Napa Reporter.*

STOCK BREEDERS.

Suggestions About Breeding.

1. A perfect development, and sound, vigorous health, constitutional, especially in the generative organs, are conditions of fertility.

2. In the maintenance and improvement of a breed, the truth that "like produces like," that the reproductive germ will stamp upon the animal developed from the characters of the parent organism, is the backbone of success.

3. We can in a great degree, at will, produce variations and improvements in breeds; by abundant feeding, a mild and salubrious climate, a rich and healthy soil, moderate use, education, stimulation or selection of desirable qualities; by disease or rejection of undesirable characters and properties; by soliciting the weight of imagination in our favor; by allowing the breeding animals to mix only with those of the stamp desired; by crossing less improved breeds systematically with males of a better race, and by crossing animals faulty or deficient in some particular point with others in which this point is developed in excess.

4 The herding of pregnant high class animals with low bred ones, and the resulting attachments between the two races are to be especially avoided, as occasionally affecting the progeny injuriously; strong impressions from a new or unusual condition of surrounding objects are to be equally guarded against.

5. If a valuable female is allowed to breed to an inferior male, she cannot be relied upon to produce pure-bred animals for several succeeding pregnancies. Through a strong and retained impression, through the absorption into the system of living particles (germinal matter) from the fœtus, or through some influence during pregnancy on the ova, then being most actively developed, the good or bad features of the first sire are perpetuated in the progeny of succeeding ones.

6. All breeds show a tendency to "breed back," or to produce offspring bearing the marks of their less improved and comparatively valueless ancestors; hence, individuals of this kind must be rejected from the best breeds if we would maintain their excellence.

7. Certain races and individuals have their characters more fixed, and will transmit and perpetuate them in greater proportion than others with which they may be crossed. If their qualities are desirable, they prove highly valuable in raising other stock of greater excellence; if undesirable, they will depreciate the value of any stock crossed for many generations. That fixity of type, however, is above all, a characteristic of those which have been carefully selected and bred up to a certain standard for many generations, so that in our best, longest established and most esteemed breeds we have a most valuable legacy left us by the successful breeders of the past with which we may mould our inferior races almost at will.

8. While breeding continuously from the nearest relations tends to a weakened constitution, and the aggravation of any taint in the blood to sterility, these may be avoided by infusing at intervals fresh blood of the same family which has been bred apart from this branch of it for several generations. Moreover, the highest excellence is sometimes attained only by breeding very close for a time.

9. Diseased or mutilated animals are generally to be discarded from breeding. Mutilations resulting from disease existing during pregnancy, and disease with a constitutional morbid taint are, above all, to be dreaded as transmissible.—*Prof. James Law, of Cornell University.*

BEES.

A Los Angeles Apiary.

Another mile brought me in sight of the long shed and honey house of Mr. E. W. Sinclair's Star bee ranch of 155 stands, which is so hid by the tall growth of white sage that you cannot see it until you are right on it. The ranch is close to the foot of the mountain, where there are three springs of clear water, one of which he will bring to his house and apiary in pipes. He has laid out and begun to build the most complete and convenient apiary, I believe, in this county. He has a neat frame shed, 10 feet wide and 60 feet long (with 60 stands now in it), as a beginning of two sheds to be each 150 feet long, for which the lumber is on the ground. The sheds will be parallel with each other, 50 feet apart, set due south and north. The posts are seven feet apart in width, and the hives are arranged in two rows, four feet apart, thus giving the bees the morning sun, but perfectly shaded from the mid-day sun, the roof projecting one and one-half feet on each side beyond the hives. He could give them two feet if needed, and still have room between the hives to work and run his honey cart to the honey house at the lower end of the sheds. The sheds are shake roof one-half pitch, five feet high at the eaves, but six feet four inches in the clear, inside, and you would be surprised to see the difference in comfort and convenience in handling the bees in such a shed compared with outside in the hot sun.

The Honey House

Is small—10 by 16—but will be enlarged next season by an addition 12 by 24, making it in the form of a T, with room for grading, putting up and packing for market, and each package, can or frame will be labeled before it leaves his house. Mr. Sinclair has an extractor made to his order by Coulter & Harper, so that having thrown the honey out of one side of the comb, it is only moved one-fourth of a circle inside the reel without lifting out, turning around and setting it back again, as is usually done, thus saving more than one-half the labor in handling. He has also a cold strainer and a sun extractor (but he does not allow any honey from the sun extractor to go in No. 1 honey), and all arranged handy and kept as neat and clean as a lady's kitchen. When completed, both sheds and honey house will have eavestroughs the whole length, and run the rain water into a large cemented cistern, capable of holding 1,000 barrels of water from 3,000 square feet of roofing, to be used for irrigating an apple, peach and orange orchard, if it is needed.—*Los Angeles Herald.*

HOW TO GET A LARGE YIELD FROM A HIVE.—J. W. Webb writes to the Lompoc *Record* of his observations in Los Angeles, as follows: Mr. Walbridge, of Walbridge & Corey, was an entertaining informant on this subject. They have 330 stands of bees, seven miles from Santa Punta, Ventura county. Mr. Walbridge has a strong swarm, from which he has taken 150 pounds of honey, and expects to take double that quantity this year. He thought at one time that the man in the recent bee convention, who said his 50 stands of bees would average 400 pounds of honey each, was excited. But he now thinks it possible for a swarm of bees to produce nearer 1,000 pounds in a year. By giving a strong swarm a large hive, and preventing them from swarming off, supplying them with a queen if anything should happen to their own, also breeding comb, and empty comb ready to fill with honey without the time and labor necessary to gather and make wax for for comb, good range, careful attention, and close watching by experienced bee men, he thinks the last named quantity attainable.

HORTICULTURE.

Oranges.

At Los Angeles I called on Mr. Thomas A. Garey, a great semi-tropical orchardist and nurseryman. A few facts gleaned may not be uninteresting. But I should state that passing through land leased by Fisher, Richardson & Co., for a number of years, I saw between 20,000 and 25,000 thrifty ash and a large number of maple trees, imported from the East, for carriage, building and manufacturing purposes. They certainly look well. They grow on what seems to be a sandy loam, not unlike some Lompoc soil, which is here irrigated occasionally. Mr. Garey's land is the same. On his place are some 50,000 trees; when the nursery trees are sold off, nearly 5,000 standard trees, mostly orange, lemon, walnut and almond, will be left; also 15 acres of a general assortment of northern fruits, which do well, except plums and cherries, which will grow too much to wood and with little fruit in spite of vigorous branch and root pruning, except in occasional years. He also owns a half interest in the Co-operative Nursery company, of which he is president, and which is putting out 400,000 young semi-tropical trees on 100 acres. The trees, I think, are all budded as they now find that budded orange trees bear several years earlier and a better quality of fruit. They are satisfied that as compared with the Pacific island oranges, which must be necessarily picked a little green for shipment here, oranges just as good and sweet can be grown. Very valuable experience in orange culture is now being rapidly gained and made profitable by southern nurserymen. Mr. Garey is experimenting with not less than

Fifty Kinds.

I will name a few with some of their characteristics. The Navel, from Australia, bloomed the first year; some are setting with promise of ripening now. A beautiful ornamental kind of oranges and lemons, has variegated leaves, resembling in color of leaf the Japanese honeysuckle, or the variegated myrtle, a common creeper in our own gardens. The Mediterranean, Garey's favorite, is seedless, without pith in the center, and has very compact flesh. The Seville orange does well; it is valued for its bright color and peculiarly bitter rind, which with the pulp, makes the best of marmalade, or orange preserve. Well do I remember the toothsome article my mother used to make for our family in England, where we could get the oranges speedily from Seville itself, in Spain. The St. Michael are generally small, but some two-year old trees had a dozen last season, and are now, at three years old, full. This was a great favorite in England. I well remember having heard the street peddlers call out "here's your sweet St. Nicholas oranges," and they know well what name takes best with their customers. The Duroi, at two years old, bore 22 perfect oranges. The Maltese Blood orange, only two years old, was as full of fruit as ordinary plum trees. Common orange trees were pointed out, budded on lemon stocks, that bore 250 good flavored and sized oranges last year. Mr. Garey says trees bear soonest when budded, lemon on orange, or *vice versa*. Mr. Strong, nurseryman at Westminster, subsequently told me that he has refrained from trying the orange on lemon stock, fearing they would be small and short-lived trees, because the lemon is really but a bush. He is waiting to see the matter well tested. A number of Mexican lime trees, said to be the best kind, were very full of green fruit. They bear the year round, and at from five to eight years old, bear from 500 to 600 each. The Boquet orange is very fragrant and has large blossoms. The finest grows in clusters, only ornamental. There is a white-fleshed orange, containing no pungent oil in the skin. The Japanese lemons are good and early. If I remember, Colonel MacLeod has some trees of this kind in his garden. The Pumalo is an ornamental tree, with fine glossy leaves and fruit 21 to 27 inches in circumference, pear-shaped, but coarse for eating. The Mandarin is small, thin-skinned, and bears early. As a general rule it is said where the pomegranate will do well, the orange will.

On very small trees I saw a few oranges that will doubtless mature this season. I learned that in winter they have some frost and even ice, but neither that nor considerable wind hurts when the orange tree is well rooted and set. It is possible that in well sheltered spots we can grow some of the hardier and earlier oranges in our valley. Being evergreens, they can be transplanted at any time, even when in full bearing.

When at Westminster I saw an excellent device, called

"Carroll's Patent Transplanter."

It is a sheet of iron with hinges, so that it can be bent round in shape, something like a bucket and fastened firmly. The bottom edges all round is kept very sharp. It is 8x10 inches, 15 inches deep, folded around the young tree. An axe striking a block of wood laid across the top, drives it down level with the surface, cleanly cutting off every side rootlet, and holding solid all of the earth with not a root disturbed. A horizontally laid sharp spade is now driven in at the bottom, which is easily gotten at, as the removal of the former trees of the row leaves a trench. This cuts off the tap root, and makes a bottom to the bucket. Strong iron rings at the four corners afford an easy means of lifting the tree. The transplanter is then unfolded and the bottom taken out, and strong sheets of paper tied round the ball of earth. They can then, with anything like fair handling, be sent any distance, and be sure to live—never know they were taken out of their original bed. The drawbacks are time, expense, and loss of soil, where the trees to be transplanted are standing very thick. But it is the safest and best way I ever heard of.—*J. W. Webb in Lompoc Record.*

THE HORSE.

Indian Pony and Race Horse Cross.

A writer from San Mateo county, (Cal.) to the Chicago *Live Stock Journal* gives some interesting experiments with crossing the Indian pony and English race horse. He says: I have detailed my success in breeding the little Indian pony mare to the Yorkshire coach-horse, now let us see the result of putting the same mare to the English thoroughbred. My doctrine in breeding is that the fountain-head of all quality, style, beauty, endurance and speed is the thoroughbred race horse, and that by means of him as sire, all sorts and kinds except those of heavy, slow draft were *improved*, and I thought that having a likely colt from such a scrubby little mare, by a common coach horse, I shou'd have a still better one if I bred her to a thoroughbred. So when the imported thoroughbred, Lawyer, came to stand at my place, I tried the experiment, and the result was anything but satisfactory. The cross did not seem to suit, and only produced the *bad* qualities of both parents, not only bodily but mentally. My little Indian pony in due course produced a filly foal by the English race horse, and at first I thought I had got a horse which would prove even better than the coach horse produce. As a foal it was well shaped and handsome, and a great improvement apparently on the pony dam; but at three years old the growth in height stopped at 14 hands, and the legs were the defective legs of the sire, and developed a ring-bone without any known cause before any attempt to use, which rendered her practically valueless. And when haltered and stabled the following winter, trying some remedial measures on the ring-bone, she showed a cross, mean and impracticable disposition, which decided me to let her alone as to work, but to try another breeding experiment with her—a great error, I admit. But in those days mares were scarce, with any good blood at all in them, and the cost of keeping a few horses, more or less, was little considered; so, to illustrate the anomalies which occur in breeding animals, I pursue the history.

Another Cross.

In the same year that this filly of mine was begot, a fine thoroughbred mare dropped a colt foal to Lawyer, which, when a three-year-old, I purchased and kept afterwards as a stallion. This having proved the right cross for Lawyer, produced in the offspring the *good* qualities of both parents, and eliminated the bad; for although the mare was rather fine and delicately formed, the legs of her colt were good and strong as possible, although not big of course, and he grew into a 16-hand horse of first-class type. He was a saddle horse fit for a king to ride, but he never felt a buggy harness on him, as I thought him *above the business*. I thought I would see the result of uniting this half-brother and sister, and so put the young thoroughbred to the half bred Indian pony mare, and she dropped a filly foal, which turned out the queerest mixture of all. When the proper time came, she was taken up to be handled with several others. It will be kept in mind that she had two crosses of thoroughbred, and was bred from horse and mare by the same sire; all the rest of her was Indian pony. She was barely 14-hands high, her withers much lower than her rump, good shoulders and tremendously large and muscular hind quarters and *legs of iron*, moderate sized bone, but perfectly clean and sound, and they could not be be made otherwise, although she did everything a horse could do to use up her legs. Her temper was demoniacal; she would squeal, bite and kick *at you* from the very first, and was full of treachery—always ready to play a mean trick if she saw the chance; and during her breaking lessons smashed more harness and sulkys, got over more fences and into more mud holes, than all the others combined.

My inference is, that the thoroughbred and the Indian pony are too entirely distinct in their mental and physical organization to amalgamate advantageously for useful purposes, and that, as a general thing, the native California mustang will not be crossed to advantage, for our purpose, with the highstrung, perserving tempered thoroughbred, but rather with a good sized, quiet tempered quarter or half bred roadster of good born and somewhat lymphatic temperament, which will rather tend to quiet down and cool the innate spice of devilry which exists in most of these wild breeds. The thoroughbred rouses and intensifies these characteristics, and physically having originated from a horse of rather small size, is liable to breed smaller than a horse of coarser organization.

HORSE MEAT.—The consumption of horse-flesh seems to be steadily increasing in Paris, the official report being that during the first quarter of 1876, the horse butchers of Paris have furnished 2,370 horses, asses, and mules for public food, yielding 429,300 kilogrammes of net meat, or considerably more than in the same quarter of last year.

Bread Made from Whole Wheat.

When told that it is quite unnecessary to convert wheat into flour before making bread, one is inclined to express some astonishment; but seeing certain colors are now mixed, and that on a large scale, without any previous grinding, and without any rubbing at all, thus sweeping away with the greatest expenses that attended the trade, we may not refuse to listen to a plan for doing away with the use of millstones, bolting cloths, and all the paraphernalia of the flour manufacturer.

The new system of bread making is the invention, we believe, of a Frenchman named Sezille. Let us state, by way of preface, that according to some scientific men, the total amount of indigestible matter, or bran in wheat, is not more than from four to five per cent. of the whole; by the present method of flour-grinding and bread-making, scarcely 80 per cent. of the alimentary part of the wheat is made available.

Now for the method itself, which is divided into three successive operations:

First.—The wheat is placed in a mash-tub, or other vessel, with more than sufficient water to cover it, and well stirred with a peel for some minutes; by this operation all the overlight and damaged grains, as well as dust and other impurities, will rise to the surface, be dissolved, or held in suspension; at the end of half an hour the water is drawn off, and the wheat having been allowed to drain, is afterward placed in a cylinder of plate-iron, pierced or worked so as to have the effect of a rasp when made to revolve. With the aid of this cylinder, from two to three per cent. of the outer pellicle, which is the coarser, is easily removed; as to the second skin, and that in the crease of the grain, it only amounts to about two per cent., and might all be left in without injury to the nutritive quality of the bread.

Second.—The grain is now placed in a vessel filled with water, at a temperature of about seventy-five degrees Fahrenheit, in the proportion of about two parts by weight of water to one part of wheat, so that there shall be a certain quantity of water above the grain; to this water is to be previously added one part of half-dry yeast and five or six ounces of glucose to 200 parts of water. The ferment in the water acts gradually upon the wheat, and after immersion for 20 or 24 hours, according to the nature of the grain and the temperature, the wheat will have absorbed from 50 to 70 per cent of water, and be ready for panification. The water will now have become of a reddish color, having extracted an amount of the coloring matter from the remaining bran, and is allowed to run off; thus another step has been made towards the bleaching of the dough.

Third.—After the wheat has been again drained it is made to pass through one or more pairs of rollers, and, being of the consistency of cheese, it is easily reduced to a paste; by this operation the bran of the second skin has become excessively finely divided, and equally mixed throughout the whole mass. This being done, and the dough placed in a trough, the proper amount of salt to give flavor to the bread is dissolved in water and poured over the dough, and, should the wheat not have absorbed more than fifty per cent. of water, fifteen to twenty per cent. more is now to be added, and the whole is well mixed by being turned over two or three times by hand. The dough is now treated in the ordinary way, rolled and made up into lumps, and left to ferment until the right moment for putting it in the oven.

There is certainly nothing unreasonable in this process; the machinery is of the simplest kind, and the processes such as any baker could carry out without difficulty. It well deserves a trial, and, although the wish has ungratoful sound, we heartily wish that M. Sezille may have found the method of dispensing with the use of mills, millstones, bolting-machines, and flour-sacks, and even with the jolly miller and his men.—*Good Health.*

Bats and Insects.

We make the following extract from a recent number of the London *Farmer:* In the winter of 1875-76, a large number of dead, and, for the most part, hollow trees in the Thior-garten of Berlin, were felled and cut up for firewood. As a consequence of this measure, many thousands of bats, hybernating in these natural retreats, and awaiting the return of spring to renew their energetic campaign against insect vermin, were necessarily destroyed. It is needless to point out here the great utility of these harmless little creatures; any one possessed of the slightest smattering of natural history must be well acquainted with the fact. The question to be considered is how such a needless destruction of useful animal life may be best avoided. Numerous observations have fully shown that bats in a state of hybernation can endure any degree of cold without injury; but that if once disturbed while in this state they are extremely susceptible to change of temperature, and but rarely survive the disturbing intrusion on their sleep. Baron Nolde writes to a German cotemporary, suggesting that such trees as form the resting place of bats should be felled only in the warm months of the year, while their inhabitants are in a state of activity, and able to seek fresh shelter for themselves. The only objection in this place is, that labor is more easily and cheaply procured in the winter than in the summer months. But granting this, it by no means allows that by felling such trees in winter is in the long run the cheaper plan. The importance of the bat in the economy of nature has not been properly recognized. He cites the case of a forest belonging to the crown in illustration of this point. Well grown oak trees being required for naval purposes, a notice was issued that none should be felled until the receipt of special orders. Long after the trees had arrived at maturity, the notice remained unrevoked, and they were suffered to run on to a state of decay. This being reported to the higher authorities, orders came to cut down the trees for firewood. The work was undertaken in the depth of winter; thousands upon thousands of hybernating bats died from disturbance and exposure, and the ultimate result was the total destruction of the whole forest, for in the second year after their extermination the damage done by caterpillars—which up to this time had never been specially remarkable — attained such an enormous development as to render the felling of the whole plantation the only practicable course to be pursued.

New System of Grinding in Germany.

Some commotion and lively discussion has lately been caused in Germany and Austria by the announcement that a Mr. Vincent Till, who owns a mill and bakery at Bruck on the Main, had discovered a new process of grinding grain into flour, which enabled him to make 100 lbs of fine white bread out of 80 lbs of wheat. The *Muehle*, which is the official organ of the society of German millers, said, in one of its October numbers:

Cylinders are undoubtedly destined to play an important part in milling. Yet, however important they may be, they will always be secondary to a machine which will completely remove the hull of the grain before grinding. Such a machine I have finally, after experimenting for many years, invented. With this mill I can remove every visible trace of the hull while the grain is dry; and I can, moreover, remove one, two or even three coats from the kernel, without in the least injuring or losing any part of the remainder. When this is accomplished, all the nourishing parts of the grain may be made into flour; and 126 lbs. of bread may be made out of 100 lbs of grain. By means of this shelling-machine (*Schaelmaschine*), with a good breaking machine (*Getreidebrecher*), and a smooth cylinder run, 70 lbs of the finest flour may be made out of 90 lbs of wheat; while with burrstones, only 20 or 30 lbs. can be produced. Burrstones are an obstacle in milling, and should be done away with.

The inventor, continues the *Muehle*, has sent us a small sample of shelled rye, which has an excellent appearance, and is superior to anything we have ever seen turned out by a dry smutter.

We give the details of Mr. Till's process, as they are set forth by the inventor himself: A condensed sketch of the process is as follows:

1. The grain is oulled by means of a separator.
2. It is subjected to the action of the smut-machine, or wheat-scourer. (The German expression means, literally, shelling-machine).
3. Each kernel is cracked or broken into ten or twelve pieces, by smooth-cylinders.
4. These groabs are ground by cylinders.
5. The product is then subjected to the separating reel.
6. It is then assorted by the middlings purifier.
7. The middlings is then again ground by cyliuders.
8. The coarse bran is again ground by cylinders, as before, and is then
9. Subjected to the bolting-chest.—*Miller and Millwright.*

The "Man-root" of Colorado.

Thomas Meehan, the well known horticulturist writes to the *Independent* an account of a wonderful Colorado plant. He says:

Once, in Colorado, I came on a convolvulus, or "morning glory," with wine-glass shaped and wine-colored flowers—not a "vine," but a bush, about a foot or so over. Seed was not ripe, so I tried to get a root; but in no case could I get one out of the ground. This is all I knew. But here at the Centennial I find the "man-root" of Colorado—the full size and stature of a man—*fifty-eight* inches long! And I am told the account of its digging up. First, two men, a half a day, with pick, shovel and crowbar; but the plant not out. The next half day so spent; and still no root. Next day the men were sent out with orders not to return without it; and then it came, and such a root as we see! Here is a small spray in my herbarium—*Ipomœa leptophylla;* but I never dreamed of its having such a history as this. Most plants send their leaves and branches into the air, the herbaceous parts fall annually, and the trunk increases in size; but here the increase is all, from year to year, under the ground—a trunk like a small palm or tree-fern, crowned every year by about 18 inches of foliage, all we see, and in ignorance of the great work going on below. We have something like it in the East. The *Ceanothus Americanus* (the New Jersey tea) and the "briar" (*Smilax rotundifolia*) have herbaceous tops, dying back annually, and yet with roots increasing from year to year, and finally making good-sized underground trunks. But this Colorado "man-root" beats them all.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. WEBSTER; Secretary, AMOS ADAMS.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

GRANGE DIRECTORY.—A full list of Subordinate Granges, Masters and Secretaries, of California and Nevada, is published as often as once a quarter in this department. See issue of July 8th for latest insertion.

P. OF H.—Subscribers who pay fully one year ($4) in advance for the PACIFIC RURAL PRESS can receive the CALIFORNIA PATRON *free*, besides other premiums. See our premium list in another column.

The Grain Problem.

One of the most vital questions to the farmers of this State is, how to dispose of their grain crops of the present season to the best advantage.

There appears to be a well defined plan among the grain dealers to take advantage of the farmer's necessities. Owing to the failure of crops last year in many sections of the State, the husbandman was reduced to the necessity of borrowing money, with which to purchase wheat for last seeding, as well as to get something to live on in the meantime. Most of these loans have been made by commission houses and grain dealers of San Francisco, in order to get high rates of interest, and to induce consignments of grain to sell on commission. Experience has demonstrated that no greater inducement can be offered the poor farmers of the State than to loan them money on promises of consignments and warehouse receipts. And it has almost invariably so happened that the grain merchant stood in pressing need of his money just when grain was the most depressed in price, consequently the farmer was the least able to pay. 'Tis true, the commission men have always appeared anxious to accommodate their patrons in all cases of this kind, by selling the farmer's grain to themselves, or to somebody else, at "current rates," charging for the accommodation two and one-half per cent. commission on the gross sales.

It is asserted, by those who claim to understand the situation, that commission dealers have already secured grain sufficient to load 50 or 60 ships. A great portion of this grain has been purchased directly by the firms in San Francisco or their agents, who are scattered all through the country.

It is asserted by some of the manipulators, that more than one-half of the farmers of the State are embarassed financially to such an extent that they will be compelled to realize on their crops within the next 60 days. That many of those who are comparatively free of debt are disposed to take small accommodation loans (which are freely offered in many sections of the State by the grain dealers), payable on demand, or in 30 or 60 days. No doubt such loans are, in many cases, unavoidable, but they are the life of the speculator, and death to the farmer's independence, and consequently should be avoided whenever it is possible.

Although we do not believe that the embarassment of the farmers is as great as represented, nevertheless, it is evident that there are millions of money loaned in the country, the greater portion of which has been advanced on the present grain crop, and which is likely to be called for when the farmer is least able to pay it.

In view of this fact, and the increasing disposition of the grain men to get a firmer hold upon the produce of the country, is it not expedient for the Patrons and farmers of the State to take joint action in self defense?

It is one of the fundamental principles of our Order, that "successful results of general welfare can be secured only by general effort. Unity of action cannot be acquired without discipline, and discipline cannot be enforced without significant organization." Hence the necessity of strict adherence to principle, that we may have unity of action in everything that is worth undertaking.

By unity of action cannot the Patrons of the State, in a measure, at least, relieve themselves of the embarassments which surround them? If there are combinations against the farmers' interest, then shall not the farmers combine for mutual protection?

Cannot they, through the Grange organization, effect an understanding which will be mutually beneficial? If each farmer in the State will pledge himself to one another that he will not take less than $1.60 per cental for his wheat delivered in San Francisco, will he not get it? It may be said that you cannot combine *all* of the farmers in an agreement of this kind; then combine half of them and the same end will be effected.

From careful estimates it is computed that there are not exceeding 650,000 tons of surplus wheat for export. This amount would require some 500 vessels to carry it. There are now vessels in port, and to arrive within the next 90 days, of between 280,000 and 300,000 tons register—sufficient to carry nearly or quite one-half of our surplus grain. These vessels, upon arrival, will have to be loaded. It is claimed by those who understand the tricks of the trade, that about one-half of this tonnage has already been secured by the various grain firms. There will be an effort to load these vessels before they go on demurrage. For $100 per day, (the usual rate of demurrage) on the 100 vessels for which cargoes have not been secured, would amount to $10,000 per day, which would soon eat up all speculative profits. Whenever these vessels arrive for which cargoes have not been secured, and, in consequence, are likely to go on demurrage, *then* the pressure will come on the farmers who have had *accommodation loans;* for it will be a question of life and death with the dealers who who have ships to load. If they cannot get sufficient wheat to supply their wants at $1.50 they will pay $1.60; if not at $1.60 they will be compelled to pay $1.70.

It may be said that the grain market in Europe will not justify paying such prices in this market. Let us see. The lowest price for which wheat has sold in San Francisco, for the last 12 years, was or about the 1st of March, 1873, when it touched $1.40 per cental, for a few days only, which, within 60 days, arose to $1.80. The next lowest price reached was on or about the 1st of September, 1866, when it touched $1.45 for a short time; but there has not been more than 60 days in the last 12 years when a good quality of wheat has been less than $1.50 per cental in San Francisco.

In nine of the 12 years enumerated, wheat has fallen in June and the first part of July, recovering, in most cases, in August and September. In eight of the 12 years the difference in price at the opening and closing of the grain season has not varied more than 30 cents per cental, and in the most of them there is not half that difference.

There has been but three years in the last 12 that wheat in December has not been worth $2.00 per cental. The years excepted were 1869, when in December, it was worth $1.70. In December, 1866, it was worth $1.90, and in December, 1874, it was worth $1.60.

The highest price obtained for wheat in our market was reached in 1864-65, when the average price for the whole year was $4 15 per cental. The lowest average for any of the years enumerated was in 1874-75, when it was $1.60.

The average prices paid for wheat in San Francisco, for the past twelve years, was as follows:

Years.	Whole year, per ctl.	Years.	Whole year per ctl.
1864-65	$4.15	1870-71	2.25
1865-66	1.97	1871-72	2.29
1866-67	1.76	1872-73	1.94
1867-68	2.31	1873-74	2.02
1868-69	1.71	1874-75	1.60
1869-70	1.70	1875-76	1.96

The general average, per cental, for the first six years above enumerated is $2.26½; for the whole twelve years $2.14; for the eleven years last enumerated, excluding 1864-65, in which years grain sold exceptionally high, is $1.96.

From the above table it must be plain to any one who will take the trouble to examine it, that it is perfectly safe to hold wheat when it is below $1.60 per cental.

There has been a disposition among designing men to create the impression that wheat would have to come forward freely and be sold at ruinous rates to the producer, in order to induce sufficient tonnage to come this way to take it. We have seen that there is nearly sufficient tonnage here, and to arrive within the next 90 days, to carry off one-half of our surplus. This tonnage will be sufficient to take all the grain which should be offered between this and the first of January, and we have reason to believe that there will be as many vessels heading this way within the next 90 days as have in the last. We have seldom had a dirth of tonnage in our port. 'Tis true, combinations have been entered into every year with the design of contracting the tonnage, but almost invariably in the end the "corners" have been rounded off and the way made smooth for all legitimate export. But admitting, for arguments sake, that not more than two-thirds of the tonnage required to export our surplus will enter our port within the next nine months, what of that? Is it not better to sell two-thirds of the crop at $1.75, than to rush it all in, glut the market, and sell it at $1.25, or $1.30?

Wheat cannot be raised with any profit to the producer for less than $1.60 per cental; when it is below that price it is below the cost of production, consequently it is always safe to hold it, for it is impossible for any article of commerce to remain long below the cost of production.

It has been said that the "immense" crop raised in the State will necessarily keep the price down. This is a mistake, for the amount produced here is but as a small river running into the great ocean of European consumption, not a hundredth part of what is required for that populous country.

Moreover, the political atmosphere of Europe is growing so dark with red spots of war just above the horizon, which are likely any day to set Europe in a blaze. War, although a great calamity in itself, would bring prosperity to our people in the enhanced value of their products.

Taking a comprehensive view of the whole subject the prospects of the farmers of California are not gloomy by any means, especially with those who are able to hold their crops. Those who are not, in consequence of financial obligations, are likely to be more or less embarassed by the speculators whose money they are using.

In order to protect themselves the Patrons and farmers of the State should agree upon some concert of action. It occurs to me that the best thing they can do to get relief from the present embarrassing situation is to agree upon a stipulated price which they are willing to take for their grain.

Let each and every Grange in the State call a meeting of its members, as soon as practicable, and consider the situation. Let each member pledge himself to every other that he will not take less than at the rate $1.60 per cental in San Francisco, deducting freight when sold in the country.

This would be only a fair living rate, and if the farmers of the State are agreed upon this price there is no doubt about obtaining it. When it is possible, relieve those who are embarrassed by enabling them to get money some where else. There is an indisposition of capitalists to advance money on warehouse receipts of grain stored in the interior of the State, but there does not appear to be any trouble about getting advances on grain stored in and about San Francisco. We understand that any amount of storage can be had here at the rate of $1.50 per ton for the season. If there is no other alternative, let those who are in pressing need send forward sufficient only to meet pressing demands. If it cannot be sold for a fair price, store it, and take an advance on it. If farmers are disposed to make direct shipments to Liverpool, there are indications that they will have ample opportunity to do so, for we understand that charters can be secured at a fraction over £3 freight, and the probabilities are that it will, in the next sixty days, be much lower.

Don't hold for high prices, sell whenever a fair living rate is offered, but never sell, if you can avoid it, until you do; for the time will come, during the year, when you can, together with interest on the investment. Let us act in this as in all other matters of interest—"pull together"—for the soul of our Order is unity of action, *without it* nothing great has ever been accomplished; with it, the world moves, and all things are possible.—*J. V. Webster, in California Patron.*

The Fourth in Sonora Grange.

EDITORS PRESS:—America's grand Centennial year is now in its decline. The nation has stamped its seal of approval upon the past, and again takes courage for the unknown future. A future pregnant with mighty forces in furtherance of true liberty and a higher civilization. However grand the results of the past decade, the future holds out hopes of greater achievements in art and science, in social and fraternal ethics; and, in all which constitutes a higher standard of life, happiness and equality. No calling requires the aid of scientist or philanthropist more than the agriculturist, and those who may be considered as producers of creature comforts. The subject has only been before the world in its proper light for a very few years. Much has been done in so short a time, but much more remains to be done before the farmer is enabled to occupy that commanding position in society which he is entitled to. Education must be the remedy; the Grange, the school-house. A reformation in the farmer's condition will be gradually inangurated. As a class they do not know their own strength, or importance in the affairs of the nation. Suppose the farmers would strike for some fancied wrong just for one year, where would this great nation be in the eyes of the world; commerce would be at a standstill, starvation would stare us in the face, a result would appear we had never dreamed of, because the farmer plods on year after year a victim to speculators, who reap the rich rewards of honest toil, by being enabled to form rings etc., so that the producer must eat the husk of his own production; the man of gold enjoying the kernel.

But the days of such speculations are numbered. Farmers will be educated by the association of the Grange. Laws will be enacted more to his interest; he will become a law maker as well as a law observer. The rule of right will be more in the ascendant as time weaves her web for the next celebration. The owners of the soil will be the patriarchs of the future, for a life with nature stimulates the higher sentiments of the soul, creating a reverence for nature, God, and a practice of what is termed good. May the peaceful days hoped for gild the morn of this second century of a nation's existence, is the Granger's supplication.

Sonora Grange met in their hall in Sonora at 12 M., on the Fourth, and enjoyed a feast provided very bountifully by the sisters. Friends were invited and many took the opportunity to greet the Grangers under such pleasing circumstances. After the feast, Sister Florence Kelly recited a very appropriate piece, which was well received. Music followed and a social time generally. Two o'clock being the hour for outdoor exercises, the meeting was dismissed by a benediction from the Methodist minister. This little episode in our celebration of the nation's Centennial was the happiest of all the happy hours spent on that memorable day. "'Tis now of the past, but the record is written, and future ages will read it with heightened interest, as being the first decade of what seems to be, hoped to be, and prayed to be, a never ending confederation of freemen."

One hundred years since freedom smiled
On our young loved American child;
Baptized anew, midst tears of joy,
Its life shall be without alloy.

JOHN TAYLOR.

July 12th, 1876.

For the Good of the Order.

Secretary J. P. Mullinix sends us the following address, by John Byrne, before Parsdise Grange, No. 5, P. of H., Nevada:

Worthy Master, Brothers and Sisters:—What can be said for the good of the Order? Who will say it? This question has been asked here regularly at every one of our meetings, and very few of us respond. It should be the duty of every Granger to study and prepare himself or herself to be ready to say something for the good of the Order. If you were in trouble and needed the assistance of an attorney, and he should sit before the jury or court and say nothing in your behalf you would not consider him of any benefit to you, and that your case looked hopeless. The Grange stands to-day in the very same category. It is in trouble, and always will be in trouble as long as there are enemies working on the outside for her overthrow. We can hear and read on every side false reports that the Grange is a failure. Who should defend it? Where must the Grange look for her protector? It is here in this beautiful hall; in every hall erected to the pride of the farmer all over our broad land. The Grange is on trial, the outside world is the court and jury, we are her attorneys, and right here we should all study her wants and troubles, and come here to say something in her behalf, and show to her enemies that we brothers and sisters are, and ever will be, ready to defend her. A few encouraging words from us all at our meetings here, something said in her behalf, will give her courage, hope and renewed energy to go on in our good work.

The farmers of America; the bone and sinews of our land; the broad-shouldered and sun burnt brows of the noble Grangers who earn their sustenance by the sweat of their brows; the strong, healthy matrons; the beautiful rose-hued daughters of the same; they are the defenders of our Order. The Grange is one of the noblest institutions adopted in the 19th century, and its influence is being felt wherever the flag of free America floats this day. The Grange is not a political machine, nor a religious institution. Her teachings have nothing to do with either, and thank God for that. Here, within the portals of this hall, we meet as honest tillers of the soil; here we come together, fathers, mothers, sisters and brothers, to spend a social hour in discussing our needs and necessities; to ask of each other, as it were, advice in reference to our prosperity; to ask if there is any one sick or in distress among us; to give each other a helping hand, if need be; to discuss the many incidents relating to the welfare of the farmer. That is what we are here to-day for, and it is the duty of every brother and sister here to arise in his or her place and say something for the good of the Order—tell a story if nothing more.

When I look around this hall and see many young men sitting with closed lips and knitted brows, as bashful as though they were about to pop the question and tested the answer, I feel for them. I am afraid they will never reach that pinnacle of fame—a country justice of the peace or a member of congress.

Worthy Master, brothers and sisters, we are about to begin our harvest; the labor of the husbandman in the harvest field will soon need our attention, all will be busy gathering together the bounteous yield of cereals, which is to repay us for our industry; I trust that the yield may be beyond our expectations. When we look around us and see those beautiful fields of waving grain, those many acres of luxuriant grasses only awaiting the sickle of the farmer, those fine cozy residences nestled among the young trees springing into maturity, this fine hall erected to the honor and pride of us all, we cannot help but feel proud at the sight. Here prosperity shines upon us on all sides; the hand of plenty knocking at our doors. All hail the glowing morn All hail to the industrious farmer! All hail to our Grange.

THE GRANGERS' WHARF AND WAREHOUSE AT MARTINEZ.—The builders will have the first of the two fine large warehouses completed for the uses of the Grangers' business association with the close of this week, and it will be ready on Monday for receiving grain or other produce. Mr. Robert M. Jones has been engaged by the directors to take charge of the warehouse and will be found there ready to answer business calls. The contractors for building the wharf, Messrs. W. H. Martin & Co., commenced driving piles last Wednesday evening, and though only able to drive for a short time on each tide, while the water is high enough to float the driver, they will probably be out 250 feet with the work by the close of the week, this evening; and by the close of next week will probably have the structure completed, with caps, stringers and covering, far enough out for the use of any of the bay freighting vessels of ordinary draft. So far, 30 feet piles drive to a tight, firm bottom, which will doubtless be found with medium length piles all the way out to the required depth of water for the heaviest ocean ships, for which the wharf will be ready to give berth within the next 30 days.—*Contra Costa Gazette, July 15th.*

PAST MASTERS are honorary members of the State Grange, entitled to any office, but cannot vote in the State Grange. Past Masters are part of the County Grange, and entitled to any and all the privileges of any other member of the County Grange.

From the Granges.

Ben Lomond Grange Celebrates the Fourth.

The Grangers of Ben Lomond resolved to celebrate the great Centennial Fourth with their friends at our Grange hall. Mr. L. Rountree was chosen president of the day, the hall being decorated for the occasion. About 100 people assembled. "Old Hundred" was sung by all, led by the Ben Lomond choir. A prayer was then offered up, and the Declaration of Independence read by John Burns. Song by the choir, "Stsr Spangled Banner." The oration was then delivered by Philip Thompson, in a very able manner. Hymn, "America." The tables being set with choice eatables, not forgetting coffee, tea, and Ben Lomond wine; blessing being asked by John Burns, Sr., all partook of a hearty feast, and hsd baskets left untonched. The following toasts were then responded to: Toast first—The Resnlt of the Century in Philadelphia, coupled with President Grant. Replied to by John Bnrns, Sr. Song, "The Old Camp Ground." Toast second--The Army and Navy. Responded to by Philip Thompson. Song, "The Red, White and Blue." Toast third—The Grangers. Responded to by John Burns, Jr. Song, "The Farmer, the Chief of the Nation." Toast fourth—The Ladies, God Bless Them. Responded to by James Bnrns, in his laconic style. Song, "Annie Laurie." After lhe toasting was over, a cricket match by the Ben Lomond club, aided by many ladies in bloomer costume, was the order, who took the field, handled the bats well, and ran up the score amidst great cheering, making many of the young men take a back seat.—*Santa Cruz Sentinel.*

Temescal Grange.

A large percentage of the active members of this Grange are absent on their Centennial pilgrimage, yet the attendance at the harvest feast on Saturday last was sufficient to make it (as usual), a happy occasion. Two brothers were raised to the fourth degree. Short speeches were made by visiting brothers and members, and considerable useful information exchanged in regard to business, and home matters.

A Free Meeting.

It has been determined that in addition to the regular meeting of the Grange on the first Saturday in each month, that for the present at least, a free meeting of the members of the Grange and all interested in farming and horticulture, shall be hold on the third Saturday evening of each month, at such hour and place in Oakland as Master Bagge shall give notice. Lectures, essays and debates on appropriate subjects will be in order at these meetings, as in farmer's clubs. All interested are invited to attend and take part in the discussions. More than ordinary monthly meetings are anticipated for the fnture.

GRANGE FAIR PROPOSED.—The San Bernardino *Argus* says: The Grangers of this county talk of holding an agricultural fair in October at this place. This would not only be of great advantage to the farmers, but would, we presume, pay the getters up very handsomely, by charging a small fee for admission. Let there be a museum department, and let curiosities of every description be brought in. A premium should be given for the best collection.

In Memoriam.

DEEP CREEK GRANGE, No. 136, held a special meeting on the first day of July, and the following resolutions were adopted:

WHEREAS, The great Master of the universe has removed our worthy Brother and co-laborer, GEO. W. TILTON, from the earthly field which was his pleasure to cultivate and improve; and while we bow in humble submission to the unyielding decrees which disappoint our worldly hopes, we feel it our privilege to mourn the loss of a worthy Brother and faithful member of our Order; therefore be it

Resolved, That in his death this Grange has lost one of its efficient and faithful members, and the community one of its best citizens.

Resolved, That this hall be draped in mourning 30 days, and that a copy of these resolutions be placed on the minutes of this Grange, and a copy be sent to the Visalia *Delta*, Tulare *Times*, and RURAL PRESS, of S. F., for publication.—[Committee: T. J. Brumelage, M. Jasper, T. M. Blake.

ROSEVILLE GRANGE, No. 101, Placer county, has adopted the following:

WHEREAS, In the inevitable course of human events, another link has been dropped from our fraternal chain, in the death of our worthy Brother and Trustee, PETER VAN MAREN, be it

Resolved, That in the death of our Brother this Grange has lost a worthy member, and his family a beloved husband and parent.

Resolved, That we extend our heartfelt sympathy to the bereaved family and friends.

Resolved, That that a copy of this preamble and resolutions be spread upon the records and a copy be sent to the RURAL PRESS for publication.—[Com: Nicholas Mertes, John McClung, R. Ward.

ROSEVILLE GRANGE, No. 161, Placer county, has adopted the following:

WHEREAS, The Almighty in his infinite wisdom has seen fit to remove from our midst, our worthy Brother, W. V. JOHNSON, therefore,

Resolved, That in his death this Grange has lost a faithful member and the community a good citizen.

Resolved, That we extend to his friends our sympathy and condolence.

Resolved, That a copy of the foregoing resolutions be spread upon the minutes of this Grange, and that a copy be sent to the RURAL PRESS, San Francisco, for publication.—[Com: Nicholas Mertes, John McClung, R. Ward.

AGRICULTURAL NOTES.

California.

AMADOR.

DRYING COMMENCED.—*Ledger*, July 15: The Alden fruit drying factory of Ginocchio Bros. started up on Tuesday. They have a few tons of apples, which they decided to put through, before commencing operations for the season. About the end of the present month they anticipate putting the factory in operation, and running steadily through the season. The frnit crop is unusually abnndant, and we believe they will find no difficulty in obtaining sufficient fruit to keep the drier working to its full capacity. Everything looks promising for an unusually busy fruit drying season.

BUTTE.

POTATOES.—*Record*, Jnly 15: Instead of importing potatoes from the lower counties, Butte now grows more than a market can be found for.

DAYTON.—Harvesting is in full blast, and the yield thus far has exceeded the most sanguine expectations of the farmers. The demand for labor is in excess of the supply, and the Chinese labor is a very useful auxiliary in the present emergency.

FRESNO.

THE RESULT OF THE RAIN.—*Expositor*, July 14: The ground was wet to the depth of abont three inches. Great damage was done to the dry feed and considerable loss will occur to farmers, as it compelled a temporary suspeusion of the harvest. Such a rain storm at this season of the year is unusnal, and naturally the question arises whether the unnsually great amount of cannonading throughout the State on the Fourth of July did not have a distnrbing influence on the weather. The thermometer fell 50 degrees from Wednesday evening to Friday morning—standing 54 degrees at the latter period—rendering fires and overcoats agreeable.

LOS ANGELES.

OSAGE ORANGE.—*Express*, July 15: Up to the present time the energies of our people seem to have been directed principally to the production of the Anstralian gum. But as it is doubtful whether this tree will serve all our wants, we would advise the cultivation of other timber, of qualities which we know will supply some of the wants of an agricultural and mechanical people. The Osage orange, or Bois-d'Arc, is acknowledged to be one of the best wagon timbers in the world. It is hard, durable and never shrinks—and will bear an elegant polish. We have known wsgon wheels, made and ironed when the wood was perfectly green, and in seasoning it they did not shrink enough to loosen the irons. It is much harder, and equally as springy as white oak or hickory, and less susceptible to decay. There is no tree in the world, except the willow, easier to raise. It grows rapidly from the seed, and a switch stnck in moist soil will grow as readily as if it had been transplanted with roots to it. In addition to all this, we believe it is as rapid a grower as the Australian gum, and as well adapted to a dry climate. In the Sonthern States it is used largely for hedges, but it requires a great deal of labor to keep them trimmed or topped down, so rapid is their growth. They should be planted at least ten feet apart for timber purposes, and if our farmers would dovote each a small strip of land to the growth of this tree, they would soon find it a paying investment.

BEES AT SANTA MONICA.—*Outlook*, July 12: A considerable number of bee men have recently established themselves in the foothills adjacent to Santa Monica. We have been told that nearly every canyon and available spot is occupied at present by bee ranches. Those who have been in the mountains for some time past have been remarkably successful with their apiaries. They have sold large quantities of honey, of superior qnality, for the highest market price.

MODOC.

A LONG FENCE.—Jesse D. Carr of Monterey, is fencing his swamp land at Cle r lake, Modoc county. The fence is being built of stone and wire, and will be 24 miles in length when com pleted

MONTEREY.

THE GRAIN GOOD.—*Democrat*, July 15: The wheat fields of the Arroyo Seco ranoho are turning out more grain than was expected from them after the "hot spell." We hear that the grain is not shrunken and that it is very bright and thin-skinned, therefore ranking as "mulling wheat" of extra good quality. From Soledad station, this way, also, harvesting is in full progress, results gouerally being up to expectation, in respect both to quantity and qnality. As it was feared that the hot spell had done great damage, of which no one could estimale the amount until harvest, it is very satisfactory to hear that the outcome is of snch good character.

SHIPPING RATES.—The Southern Pacific R. R. has established rates for shipments of grain as follows: From Salinas the freight for the season will be $3 50 per ton—shippers to load and unload; loading and weighing 35 cents per ton. Storage: if grain is stored for one month, 50 cents per ton, and 30 cents additional for each following month until the maximum of two dollars a ton is reached. Storage by the season, if any immediate engagements be made, $1.50 per ton. The Narrow Gauge company will probably follow suit at once. Thursday, President Abbott returned from San Francisco, where he had been to make arrangements with Goodall, Perkins & Co., and to-day the Directors meet for the purpose of taking action on the snbject.

SAN BENITO.

DAIRYING.—*Advance*: Dairying in San Benito county has proven quite profitable to those who are engaged in that branch of business. Among the prominent dairies, we may mention that of E. A. Sawyer, near San Felipe, where 150 cows are milked. Mr. Sawyer manufactures cheese altogether, believing that, the year through, it is more profitable than butter. The average yield of this dairy for five months in the year is about 9,000 pounds per month, while the other seven months will average about 5,000 pounds per month. This he sells at a averege price during the year, of 15 cents per pound, which gives him $12,000 per year from the cheese alone. Besides this he has sold, during the past year, $2,000 worth of hogs, fed exclusively on the waste of the dairy. This, then, would give him $14,000 as the gross annual proceeds of his 150 cows, saying nothing of the calves, etc. Mr. Sawyer is planting 100 acres in corn and pumpkins. He has sown the corn very thick, and proposes cutting it for fodder. He estimates that the pumpkins will yield him at least 1,000 tons, and with that he proposes to feed his cows while feed is short in the fall. Mr. Sawyer says that he can keep these cows on 450 acres of his San Felipe land. There are other dairies in the county that do fully as well as Mr. Sawyer's. We select this one to give some general idea of the business.

SAN JOAQUIN.

FIRE IN GRAIN FIELDS.—Stockton *Independent*, July 12: Through the courtesy of Mr. H. Bond, Esq, we learn the prariculars of a destructive fire that occurred yesterday afternoon in the fields, eight miles north from this city on the Woodbridge road, a few miles from its junction with the lower Sacramento road. The fire first started a little after 12 o'clock on the ranch of L. W. Northrop, from the burning of a brush heap which got beyond control and spread through the stubble field consuming two large stacks of hay for Mr. Northrop, and attacking the field of Henry Barnhart, adjoining Northrop on the south. The dividing fence was burned as well as the greater portion if not the entire field of Mr. Barnhart. We did not learn whether the entire field was stubble or whether a portion of his crop was still standing uncut, but at any rate the fire spread with terrible rapidity past his house to the southward, consuming a large stack of wheat of a new and choice variety which Mr. Barnhart had just gathered. The smoke and flames could be seen for miles around, and farmers rushed to the rescue from every direction, bringing their plows, mowers and wet sacks, to assist in fighting the destructive element. A number of furrows were hastily plowed, but impelled by the strong wind blowing all the time, the fire overleaped the barrier thus imposed. As nearly as our informant conld judge, the fire was stopped before going further than Mr. Barnhart's ranch southward, although as he passed the fierce flames were still sending forth their lurid glare from the wheat stack. One farmer to the east of Mr. Barnhart in attempting to take the precaution of back firing to save himself, lost control of his own fire and considerable damage was done before it was stopped. As near as we can learn the area burned was at least 400 to 500 acres, but we are unable to state the probable loss.

HIGH WATER IN THE SAN JOAQUIN.—The water in the San Joaquin river is usually high for this season of the year, and while its tributaries, the Stanislaus and Tuolumne, have rapidly fallen, showing that the snow is mostly melted in the mountains, still the fall of the San Joaquin is not proportionately rapid. We are informed that the cause of the present high water is to be attributed to some change in the channel of King's river, as that during the freshets of last winter it cut a new channel into Fresno slough, so that a large portion of its waters which have previously flown into Tulare lake now flow directly into the San Joaquin. Shonld the latter river continue to receive this addition to its usual water supply it will be navigable until late in the season, a very important advantage to the grain growers on the West Side, who will thus be enabled to move their wheat to market this season.

LOSS OF GRAIN.—Antioch *Ledger*, July 15: On Thursday night of last week two loaded grain barges which passed Antioch in the afternoon met with a disaster in the bay opposite Vallejo. They had on about 5,100 sacks of grain each and were in tow of the steamer Caroline, on their way to San Francisco. As they were leaking badly the steamer tried to run up under the lee of Mare island for shelter, but the sea was rough and the barges pitched and rolled and at last both went over. The one named *Rock Island* capsized completely, but the *Bessie* righted after four-fifths of her cargo had gone overboard. On Friday the *Rock Island* was towed up to the Navy Yard derrick to be righted. Eighteen thousand dollars is the estimated extent of the loss, which falls on a farmer named Newman, of Hill's Ferry, and another farmer namod McDonald, who lives at Grayson, and some buyers in San Francisco.

SANTA CRUZ.

CROPS.—Cor. *Call*, July 14: It was thought some months ago that the hot weather of the begiuning of June affected the fruit crop; but the condition of the fruit now coming into the market removes that fear. The quantity of every kind is very large, except of plums, they are somewhat scarce. Almost all of the early hay has been carted, and the late crop is now being made. Of grain comparatively little has been sown, but what is now ripening in the Salinas and Pajaro valleys fully bears out all that has been expected of it.

SOLANO.

AGRICULTURAL SOCIETY.—*Chronicle*, July 14: At a late meeting of the Board of Trustees of the Napa and Solano agricultural society, it was resolved to appoint a committee to solicit subscriptions from the citizens of Napa and Solano counties for the purpose of paying a note of $6,000 against the association. The note was drawn about three years ago and the interest now amounts to $2,700. The obligation was signed by the trustees of the society, who were James M. Thompsou, William Gouv. Morris, Jos. Jacobs, William Carter, Henry Connolly, E. McGettigan, A. Powell, B. B. Jackson, J. E. Williston, and John Callendar. The payment has been forced by the bank holding the notes, and the appeal is made to indemnify the trustees, each of whom offers to subscribe $250.

SONOMA.

HARVESTING. — Petaluma *Argus*, July 14: Harvesting is well advanced in this vicinity, some of the farmers having already finished. A less area is cut for grain than usual, there being a much greater amount of hay, potatoes and corn than in former years. Threshing will commence in a few days and new wheat will probably be received in town next week. The yield of grain per acre will be fully up to the average, and the quality good.

POTATOES.—The outlook for a large potato crop in this vicinity continues promising. The area planted is undoubtedly larger than ever before. In a few places grasshoppers have done considerable injury, and some of the farmers, within a few days, have planted their ground a second time. The region in which these pests have appeared is not extensive, however, and there is not much apprehension that they will do a great amount of damage. We have not heard of any indications of blight in this country or Marin, but we are informed that at Point Arena and places further up the coast it has appeared in a damaging form.

VINICULTURAL.—The vineyards are heavily loaded with fruit, and there is little doubt that the yield of grapes will be larger than ever before. There is, however, one serious drawback to the prosperity of viniculturists this year. Most of them have on hand large quantities of wine, for which, notwithstanding its unsurpassed quality, they are unable to find a remunerative market.

FRUIT, NUTS, ETC.—The fruit crop of all descriptions, except almonds, will be exceedingly large in the valley this year, and large quantities will be dried, canned, preserved and exported.

SUTTER.

NORTH WIND.—*Banner*, July 14: The late north winds have done serious damage to the wheat fields in this vicinity. Some farmers estimate their loss from that cause at 10 bushels to the acre. Club wheat appears to have suffered but slight damage, but bearded varieties have all suffered severely. The late rain and high wind caused some of the heaviest grain to lodge somewhat, which, with the previous loss from north wind will cause quite a falling off from the estimated yield of such as had not previously been harvested.

TULARE.

HARVEST PROGRESS.—*Times*, July 15: It will be some time yet before the farmers are through cutting grain. The crop has been very large, and is yielding when threshed fully as well as was anticipatod.

Montana.

RELIEF FROM THE HOPPERS.—The Helena *Independent* has encouraging orop news from those parts of Montana visited by the grasshopper pest. It reports one-third of the first planting good, and says that the ground eaten over has generally been replanted, from which it is expected a fair average harvest will be gathered. No further trouble is anticipated from fhe plague the present season.

Washington Territory.

CHEESE.—Walla Walla *Union:* During the week one of the proprietors of the Spring Valley cheese factory presented this office with a sample of their make. After trial it is pronounced to be very good new cheese. This cheese sells readily in this market for 20 cents per pound, wholesale. At first glance this price seems rather steep, as compared to the present price of average butter. When we take into account the fact that the manufaoture of cheese in quantities requires quite a large investment of capital and constant care and labor, whereas average butter is made in quite large amounts during tho intervals of other work, by almost every farmer's wife, and the further fact that the supply of butter is far in excess of the demand, the disproportion does not seem so great. As the facilities of this factory are enlarged and new cheese factories are started, the price of this healthy article of food will come down. Half a dozen other cheese factories would do well in this country.

THE Constitution of Colorado prohibits the imprisonment of witnesses in criminal oases. It also provides that no new bill shall be introduced into the Legislatnre dnring the last 15 days of a session, and absolutely prohibits all special legislation.



When the Cows Come Home.

When klingle, klangle, klingle,
Far down the dusky dingle,
The cows are coming home;
Now sweet and clear, and faint and low,
The airy tinklings come and go,
Like chimings from the far-off tower,
Or patterings of an April shower
That makes the daisies grow;
Ko-ling, ko-lang, kolinglelingle,
Far down the darkening dingle,
The cows come slowly home.
And old-time friends, and twilight plays,
And starry nights and sunny days,
Come trooping up the misty ways,
When the cows come home.

With jingle, jangle, jingle,
Soft tones that sweetly mingle,
The cows are coming home;
Malvine and Pearl and Florimel,
DeKamp, Red Rose, and Gretchen Schell,
Queen Bess, and Sylph, and Spangled Sue,
Across the fields I hear her "loo-oo"
And clang her silver bell;
Go-ling, go-lang, golingledinglo,
With faint, far sounds that mingle,
The cows come slowly home.
And mother-songs of long-gone years,
And baby-joys and childish fears,
And youthful hopes and youthful tears,
When the cows come home.

With ringle, rangle, ringle,
By twos and threes and single,
The cows are coming home;
Through violet air we see the town,
And the summer sun a-slipping down,
And the maple in the hazel glade
Throwe down the path a longer shade,
And the hills are growing brown:
To-ring, to-rang, toringleringle,
By threes and fours and single,
The cowe come slowly home.
The same sweet sound of wordless psalm,
The same sweet June day rest and calm,
The same sweet smell of buds and balm,
When the cows come home.

With tinkle, tankle, tinkle,
Through fern and periwinkle,
The cows are coming home;
A-loitering in the checkered stream,
Where the sun-raye glance and gleam,
Clarine, Peach-bloom, and Phebe Phillis
Stand knee-deep in the cresmy lilies,
In a drowsy dream;
To-link, to-lank, tollnklelinkle,
O'er banks with buttercups a-twinkle,
The cows come slowly home.
And up through memory's deep ravine,
Come the brook's old song and its old-time sheen,
And the crescent of the silver Queen,
When the cows come home.

With klingle, klangle, klingle,
With loo oo, and moo-oo, and jingle,
The cows are coming home;
And over there on Merlin hill,
Sounde the plaintive cry of the whippoorwill.
And the dewdrops lie on the tangled vines,
And over the poplare Venus shines,
And over the eilent mill,
Ko-ling, ko-lang, kolinglelingle,
With ting-a-ling and jingle,
The cows come slowly home.
Let down the bars; let in the train
Of long-gone songs, and flowers, and rain,
For dear old times come back again
When the cows come home.

—*Christian Weekly.*

A Camp of Women.

Five young women of Santa Barbara have gone on a camping expedition, with neither escort nor mammas. The following sprightly description of their adventures is written by one of them:

Kate Brouson is a native of New York. She has deep blue eyes, black hair and a most exquisitely fair complexion. She is a fine musician and a devout Presbyterian—one of those sweet, unselfish girls who have not a bit of originality, never have been known to make a witty speech, but who are beloved by every one, and to whom people turn for help and comfort instinctively when trouble overtakes or death bereaves them.

Abbie Haile is a native of Massachusette. She is a brunette, slender and wiry in form, quick and nervous in motion, decided and sensible in her opinions, affectionate in heart, and demonetrative in manner. As the "Hoosier Schoolmaster" says, "She is a Methodist, and likewise a Christian." She is also a poetess, botanist, mineralogist, conchologist and taxidermist.

Lizzie K. Pershing is a native of Pennsylvania. She has brown eyes and brown hair, and the prettiest hand and foot in California. She is a brilliant writer, fine elocutionist, and is blessed with a dry, droll manner, and has a conundrum or story for every occasion. She is a Methodist and a scholar. You already know her by her pet name—Percy.

San Lonie Anderson is a native of Ohio. She has golden hair, blue eyes, dark eyelashes and eyebrows, slender form, fascinating manners, and independent ways. She is a Unitarian of argumentative turn of mind. The languages and bones are her specialties. She can say more original and funny things than any one I ever knew. She is known here by her friends as Jo, that nickname having been given to her at Ann Arbor.

As even the oldest inhabitants had never heard of five ladies starting alone on a camping tour, and as the men shook their heads and the old ladies held up their hands in horror when the subject was suggested, it was thought by the young ladies to be worth a trial. Three young professors of Santa Barbara college hinted at daugere, and suggested, if an escort was desired, that they would be happy, etc.; but the girls held a meeting in our parlor, and while agreeing that the professors were nice young men, and the most agreeable gentlemen in Santa Barbara, they preferred to take this camping trip entirely alone.

We hired a quiet, gray-haired teamster who furnished his help, wagon and mules for $5 a day. We borrowed a tent and packed two barrels with provisions, took four blankets and a pillow (at which old campers laugh) apiece, a bottle of whiskey for snake-bites; and fishing tackle, gun and rifle, and, dressed in the oldest scarecrow things we could find, we started early Saturday morning for the celebrated Gaviota pass. At noon the table-cloth is spread under a moss-draped oak, by the side of a rocky stream. After lunch we pack everything hurriedly into the barrel again, and then, wrapped in our blankets, we lie under the trees, and watch the floating clouds and dancing leaves. Mr. Bishop sits at a distance on a boulder, smoking his pipe contentedly. Peace broods over us, and our first landing place we christen Camp Content.

The Camp.

Campus Muliebrum, Saturday Evening, 10 o'clock. You see we have branched out into the classics. In plain English, our camp is termed "The Camp of the Women," and as we have so few living Latin friends, I see no use in putting in that language. We got here after dark, our singletree having broken, and the ropes with which it was repaired not being strong enough to bear the weight of the whole party, we took turns in walking up hill. Our progress was slow, but after dark we reached a fine ground in sight of the ocean, shaded by oaks, and watered by a clear, cold brook. We soon after have a rousing camp fire, and while we got supper Mr. Bishop pitches our tent. I make the coffee good and strong. I am writing by the fire-light, sitting in my tent door. Jo has a long pole, and is jumping by its aid over the fire. Percy is wrapped in a carriage robe of white and red, and standing by the fire with her hair hanging in two long braids down her back. Kate and Abbie are unpacking things from the wagon.

Outside the oak trees' shadow, the moonlight floods the scene, showing us blossoms all about, and the towering mountains near by. We see moving things in the bushes, and already hear the coyotes howling in the distance, but we are very brave, of course. At last I say, "Come, girls, it's time to turn in." Kate brings her little bible from the tent, and, standing by the camp-fire, reads a chapter, and then we all join in a hymn, and I think God's angels are not far away when in the forests of California our girls say their evening prayers.

This evening I leave three of the party asleep in the tent, and the other one sits under a tree cleaning her guns. I wander alone down the grassy ravine that leads to the ocean. What more fitting place shall I find to spend the closing hours of the Sabbath day. Everything about me is so peaceful, so lonely, so beautiful. Back of me, in a green hollow, our tent stands under a giant oak, and back of that other mountains lift their heads. On either hand I see the flower-decked hills; and the little brook that chatters over the stones has followed me, and runs with its noisy story down to the sea. Before me the great Pacific rolls her blue waves, the tiny sail-boats hover, and snowy-breasted gulls are rocked.

Busy as Bees.

At camp I find them all busy. Jo has just brought in some quail, and the work of cleaning them is no easy matter; but when the evening shadows gather in the glen we are all seated around a big bed of oak coals, each one of us holding a slender stick, five feet in length, on which quail are strung, and when the birds turn brown and the juice begins to bubble through the tender skin, we exclaim, wildly, "Who says women can't kill quail?" "Who says women can't broil?" And Jo again finishes the mocking strain, "Yes, who says it? Who says women can't eat quail? Show me who says it?" And we all flourish the quail above our heads and shout.

Camp Buena Vista, Wednesday, 9 P. M.—The time for the past few days has been so occupied that I have neglected writing. The country through which we have passed has been a panorama of lovely views. Up hill and down continually; from one wooded canyon, in the bottom of which a stream has always to be forded. We have scarcely been out of sight of the ocean during the whole trip. Yesterday was Percy's birthday, and we got up a grand dinner for her, and drank her health in Jamaica ginger. She had received eight letters from her home and friends before leaving Santa Barbara, marked "Not to be opened until the 4th." She brought them with her, and yesterday morning we gathered around her to see what the birthday letters contained. They are loving home letters from the father and mother, from whom she has been parted two years. They hope in a few weeks to see her at home again, entirely cured of the rheumatism, for the relief of which she came to this climate. If they could look at her now, during this trip—sleeping on the bare ground, tramping around in the dewy grass, sitting bareheaded by the camp-fire until 12 o'clock at night, getting her feet soaking wet on the beach—they would not recognize their invalid daughter.

A Collection of Birds.

Our camp to-night looks like a regular trapper's den. Abbie is making a collection of the wild birds of California. Jo shoots them and we all help to skin them, and for pay Abbie has offered to stuff duplicates of some of her birds for us. We have now drying on our tent one pelican, two sea-gulls, one road runner, two oriolee, two doves, six quail, six blackbirds, (red, yellow, white and black winged) one snipe, two bluebirds, four red-breseted grossbeake, eight woodpeckers, three linnets, one robin, one ruby-crested humming bird. Forty-two birds in 48 hours. I have always supposed it to be a very delicate and tedious task to prepare birds for stuffing, but under Abbies tuition we have succeeded admirably. As soon as the bird is dead, we smooth the feathers carefully and run a string through the nostrils, and hang the bird up by the head for twelve hours, until the feathers are set. Then an incision is made in the breast with a penknife, the skin drawn back carefully from the breast to the knee joints, which are severed by the knife; the wing joints are broken in the same manner, then the skin is pulled over the head to the eyes, which are separated by the points of a hair-pin, and a few strokes of the penknife around the beak completes the work, and the body drops from the feathered epidermis as neat and smooth as an apple from a patent peeler. A little alum, saltpeter and arsenic are sprinkled on the birdskin, and after being exposed to the air a few hours, it is ready to pack, and can be set up or mounted years hence. It may seem to persons, as it did to me a few weeks since, to be a heartless and unwomanly thing to be able to tear the dear little songsters to pieces, and that it required nerve to do it. But any woman who has nerve to scald and pull the feathers out of a dead chicken's breast can skin a bird.

Interesting Specimens.

I wish you could see, or I could describe, the brilliant wild flowers we have gathered—scarlet pinks, wild mignonette, wild tulips, wild lilacs, wild lilies, wild verbenas. The wild gooseberries have scarlet blossoms with inner purple petals, like fuchsias; they are about half the size of our ordinary fuchsia.

Every night, after our day's work is completed, we sit around the fire that sends its glittering sparks into the moonlit sky, and tell stories or sing. Kate has a highly cultivated contralto voice that blends exquisitely with Jo's soprano. Not only do we sing hymns and college songs, but often on the still midnight air the gems of "Ernani," "Trovatore" and "Sonnambula" salute the forest solitudes.

To-morrow we expect to reach Gaviota pass, a natural roadway, so narrow that only in a few places can teams pass. The pass is about three miles long, and is sliced down perpendicularly through the great rocky walls of the coast range. It affords the only pass of road through the mountains along this coast, all other traveled highways being over the mountains' summit.—*Cor. Louisville Journal.*

Overgoverning Children.—Children are often brought up without any particular habits of self-government, because the governing is done for them and on them. A girl that is never allowed to sew, all of whose clothes are made for her and put on her till she is ten, twelve, fifteen or eighteen years of age is spoiled. The mother has spoiled her by doing everything for her. The true idea of self-restraint is to let the child venture. A child's mistakes are often better than its no-mistakes; because when a child makes mistakes and has to correct them, it is on the way toward knowing something. A child that is waked up every morning, and never makes himself up; is dressed and never makes mistakes in dressing himself; and is washed and never makes mistakes about being clean; and is fed, and never has anything to do with his food; and is cared for and kept all day from going wrong—such a child might about as well be a tallow candle, perfectly straight, and solid, and comely, and unvital, and good for nothing but to be burned up. The poor weaver who has a large family of children, bread enough for half of them, and sets them to work before they are five years old, is a philanthropist. You may gather around them, and mourn over them, but blessed be the weaver's children! The twelve children of the poor weaver will turn out better than the twelve children of the millionaire. I would rather take an insurance on the weaver's children than on the millionaire's. Blessed are those that learn by the hard way of life what every man must learn first or last or go ashore a wreck—namely self-restraint.

Hard Times.—A high authority gives the following list of unnecessaries, with the amount of money annually expended upon each of them, in this country: cost of dogs, $70,000,000; support of criminals, $12,000,000; fees of litigation, $35,000,000; cost of tobacco and cigars, $610,000,000; importation of liquor, $50,000,000; support of grog shops, $1,500,000,000; whole cost of liquor, $2,200,000,000. Surely, this does not look like hard times. What an incalculable amount of good might be done for the human race with these vast sums of money, properly expended, which are now worse than thrown away.

That was a sharp reply of the old Scotch woman who had a standing quarrel with her minister, but was always in her place at church. The minister expressed surprise that she should come to hear him preach, when she exclaimed: "My quarrel's wi' you, man, it's not wi' the gospel."

Seven Times Married.

On the 30th ult. Benjamin Abbott and Mrs. Mary Pratt were wedded at Smyrna, Del. This is the seventh time the bride has been led to the altar and the Smyrna *Times* prints some interesting gossip concerning her past life. The contracting parties to these nuptials, it says, are well up the ascending grade to 80 years. The groom is a quiet, unassuming old man, a widower, with means enough (particularly if combined with her income) to meet his not very numerous wants. The bride was the relict of the late ex-sheriff Henry Pratt, of Kent county, who was the last anti-Democratic sheriff who has filled that office in that county. He was elected sheriff in 1844 by the Whigs. His descendants, children, grandchildren, and great grandchildren, at the time of his marriage, numbered over 156, and yet he had never then had but one death in his family—his first wife. Mrs. Abbott's names have been eight in all—Miss Williams, Mrs. Truax, Mrs. Farrow, Mrs. Riggs, Mrs. Wallace, Mrs. Berry, Mrs. Pratt, and now Mrs. Abbott. In every instance, says the *Times*, save the first, she has married a widower, some of them with a goodly number of children. She, however, has never sustained the maternal relation by consanguinity.

She was reared in this community, as have been all her husbands, so far as we can learn, and hence her record has been an open book to all her seven companions, yet record, age, nor aught else seems to work fatality to "the charm that wins," whatever that may be and to find that out is the rub. The five years and over of widowhood that existed between her last and her present husband is the longest she has endured. This, however, may not be her fault, as we are certain that in one instance at least she offered to share her comfortable home with one of our most worthy old citizens, but the mere proposition filled him with fear and trembling, and to avoid a repetition he hurriedly married a young lady in her teens, with whom, and his little prattler, he is now enjoying the fullest share of domestic bliss. We have no intimation, however, that her numerous conquests have been made by open, direct assault. On the contrary we think they have not. It has been asserted on good authority that she has confessed to a presentiment that she should have seven husbands. She now enjoys the fulfillment of this prophetic notion, and, hale, seventy odd, she wears her bridal wreath with becoming dignity.

A Brave Workman.—The *Continent*, of Geneva, Switzerland, records an act of courageous self-control and presence of mind which may be compared with advantage to the honors won by deeds of daring on the field of battle. Two workmen were engaged fixing a lightning conductor on the summit of the steeple at Ville-sur-Ourthe, in Belgium. To accomplish this somewhat difficult and delicate task it was necessary that one of the workmen should stand on the shoulders of his companion. While in this position, a violent gust of wind made him spill some molten lead, which fell on the hand and forearm of his friend. Notwithstanding the sudden intensity of the pain thus inflicted, the victim of this accident had the courage to remain motionless while the lead burnt its way into his flesh. He knew that the slightest movement might suffice to precipitate his companion from a hight of 70 feet into the street below, and he bravely endured the pain rather than imperil the life of his fellow-worker. M. A. Karis, slater, at Anthisne, is the hero of this brave deed, and his name is worthy of public record.

Character Grows.—From the minute a babe begins to notice surrounding objects, his character is under the process of formation. Day by day, through infancy and childhood, here a little and there a little, character grows with the growth and strengthens with the strength, until, good or bad, it becomes almost a coat of mail. Look at a model man of business—prompt, reliable, cool and cautious, yet clear-headed and energetic. When do you suppose he developed all the admirable qualities? When he was a boy. Let us see the way in which a boy of ten gets up in the morning, works, plays, studies, and we will tell you just about what kind of a man he will make. The boy who is late at the breakfast table, late at school, and never does anything at the right time, stands a poor chance to be a prompt man. The boy who neglects his duties, be they ever so small, and then excuses himself by saying: "Oh, I forgot; I didn't think!" will never be a reliable man. And the boy who finds a pleasure in the pain of weaker things will never be a noble, generous, kindly man—a gentleman.

How to Break Off Bad Habits.—Understand the reasons, and all of the reasons, why the habit is injurious. Study the subject until there is no lingering doubt in your mind. Avoid the places, the persons, and the thoughts that lead to the temptation. Frequent the places, associate with the persons, indulge in the thoughts that lead away from temptation. Keep busy; idleness is the strength of bad habits. Do not give up the struggle when you have broken your resolution once, twice—a thousand times. That only shows how much need there is for you to strive. When you have broken your resolutions just think the matter over, and endeavor to understand why it is you failed, so that you may be on your guard against a recurrence of the same circumstances. Do not think it an easy thing that you have undertaken. It is a folly to expect to break off a habit in a day which may have been gathering long years.

Eccentricities of Courtship.

Probably there is no instance in which any two lovers made love in exactly the same way as any two other lovers, since the world began. —*Sir Arthur Helps.*

Barkis insinuated.

Vivien charmed Merlin.

Alexander made a bonfire for Thais.

Hildegarde took the bull by the horns.

The Merchant of Venice soft-soldered Portia with a lead casket.

The garrulous female in the "Arabian Nights" told her husband stories.

Victoria sent for Prince Albert and told him she wanted him. She was victorious.

In the Polynesian islands they win their hearts by beating their heads with a shillelah.

Harry the Eighth and Bluebeard were off with the head of the old love before they were on with the new.

Johnson poked the tobacco in his pipe down with his sweetheart's finger—a warm token of his affection.

Tristram did it mostly with a harp, and was also a good liar. His two Isoldes were too many for him.

Bothwell was inclined to Marie, and locked her up in his castle. It worked as well as Peter' spnmpkin shell.

Cobbett's wife caught him by the grace with which she used her wash tub. She was never known to use it after the wedding.

Miles Standish deputed an agent whom he considered fitter to plead his suit with his lady love; the agent did it too well, but for himself.

Nicholas of Russia wanted to pop at a dinner table, but didn't like to be caught at it, so he imbedded a ring in a lump of bread and handed it to her.

Charlemagne's secretary was caught by a snow storm sparking tho Emperor's daughter at midnight, and she carried him home on her back, so that his footsteps shouldn't be traced. The Emperor heard of it, and saddled him on her for the rest of her life.

Female Medical Students in Zurich.—A correspondent of the *Bund* of Berne has, says the *Daily News*, lately summed up in successive letters from Zurich the present results of the much-contested "Damenstudium." It is now exactly ten years since the first female student clamored at tho gates, or rather since the medical faculty opened the gates to her—for she had been attacking them by a diligent prosecution of the medical course. She was a young Russian lady. The University of Zurich, on the 14th of December, 1867, conferred upon her the dignity and rights of a doctor of medcine. Doctor or Doctress Erismann has since practiced medicine with great success—first alone, and later as the wife and partner of a medical man. Twelve young ladies have followed her example, all of them standing the test of the severe examination with credit, and some with brilliancy. Each of these ladies has received from the medical faculty of the university the degree of Doctor of Medicine, Surgory and Midwifery. Six of these graduates were Russians, two were English women (Miss Morgan, in 1870, and Miss Atkins, in 1872), one was a Scotch woman, one an American, one a Swiss, and the remaining two were Germans. The American, a young lady from Boston, passed with great applause, and her public disputation before receiving her degree on the 22d of June, 1871, ereated much admiration. After a short but very promising practice she lost her life by shipwreck in the *Atlantic*. In 1872, when Zurich had braved the worst of the storm of ridicule and anger, the older University of Gottingen found courage to stand at her side, and the first female academical student in the Netherlands passed a successful examination in physics and mathematics. The two latest, a Russian from Jaroslaw, and Fraulcin Franziska Tiburtins, from the island of Rugen, in the Baltic, have just maintained their thesis and been admitted to the dignity and rights of the doctor's degree. The 13 ladies who have received medical degrees have exhibited undoubted vocation for the profession. The extraordinary pressure of female students with which Zurich was threatened at the beginning of the movement has now subsided, and is not likely to recur.

Two Classes of Conversers.—Around and above all other distinctions, there are two great classes of conversers; those who make you feel that you are of some accounnt in the world, and those who have a subtle way of convincing you that you have no right to exist. The latter class is small in number; but what they lack in qnantity, they make up in sting. Sometimes they are gifted with a sharp tongue and an unerring faculty of saying the most grinding things. Sometimes they are apparently suave and considerate in manner and phrase. But, in either case, you go away from them with a feeling that the world is stuffed with saw-dust—that you yourself are an imbecile and an impostor. It may take days for you to recover your proper standing with yourself. Then, if you ask your soul what fatal gift has the tormentor, which carries with it this power of making his fellow mortals miserable, you discover that it is the gift of selfishness. The person to whom yon have been talking is ungenerous. A generous man, a generous woman—you cannot come near such an one without receiving something that makes amends for yonr own disappointment with, your own ill opinion of, yourself. An ungenerous person adds the weight of another to your side of the scales, and down you go!—*Scribner for July.*

Young Folks' Column.

Jemima Brown.

Bring her here, my little Alice—
Poor Jemima Brown!
Make the little cradle ready,
Softly lay her down.
Once she lived in ease and comfort,
Slept on couch of down;
Now upon the floor she's lying—
Poor Jemima Brown!

Once she was a lovely dolly,
Rosy-cheeked and fair,
With her eyes of brightest azure,
And her golden hair.
Now, alas! no hair's remaining
On her poor old crown;
And the crown itself is broken—
Poor Jemima Brown!

Once her legs were smooth and comely,
And her nose was straight;
And that arm, now hanging lonely,
Had, methinks, a mate.
Ah, she was as finely dressed as
Any doll in town,
Now she's old, forlorn and ragged—
Poor Jemima Brown!

Yet be kind to her, my Alice!
'Tis no fault of hers
If her willful little mistress
Other dolls prefers.
Did *she* pull her pretty hair out?
Did *she* break her crown?
Did *she* tear her arms and legs off?
Poor Jemima Brown!

Little hands that did the mischief,
You must do your best
Now to give the poor old dolly
Comfortable rest.
So we'll make the cradle ready,
And we'll lay her down;
And we'll ask papa to mend her—
Poor Jemima Brown!

—*St Nicholas for July.*

Dog Romeo.

Little Lottie was as pale and delicate as children are apt to be who are born and raised in the city, and papa grew very anxious about her as the tedious March wore away.

A summer at grandpa's transformed her into such a plump little brownie, that all their fears were set at rest.

But it was romping, rollicking little Romeo, after all, that comes in for a good share of the credit of little Lottie's cure. He was always making a dash at her slippered feet, or catching hold of her ruffled gown, to entice her into a romp, and as he was the only playmate near her age around the house, she was ready enough to respond. Many a chase up and down the orchard did they have together, and mother was very ready to repair any rents in little aprons or dresses for the sake of seeing her pet so joyful and hearty.

Romeo was such a knowing little dog, the young folks declared he understood their conversation. Nothing was more distasteful to him than to be left at home when the rest went out to ride. When he could go as well as not, he was allowed to sit upon the front seat with his master. He dropped his frivolity then, and was as dignified as a New York coachman in livery.

One day Romeo heard the folks say at the breakfast table that they were going to a neighboring town that day.

"Shall you go with the single or double team?" asked mother.

"With the double team," said grandfather.

Romeo sat with his ears sharp set, listening to every word. No sooner was the thing decided than he disappeared. He was called several times but could not be found. Finally the family set out, and when about four miles from home, who should come creeping out from under the back seat but this silly little dog! He looked up in a cheerful, friendly way, quite sure that he had got too far to be sent back now, so with their permission he would take the front seat as usual. Who could refuse such a cunning dog as that, if he did steal a ride?—*Selected.*

A Fish that Lives in the Mud.—Here's a story of a fish who can live without water. This accomplished scaly gentleman is a native of Africa, where most of the wonders come from nowadays, and has the misfortune to belong to a river which dries up every summer. Rather a discouraging circumstance to a fish, I should say; but this little fellow doesn't mind it. When the water gets low, he very coolly burrows nearly two feet into the mud on the bottom and there he stays, while the hot sun dries up the water, and bakes the mud till it is full of deep cracks. When the water comes back, fills the cracks, and soaks into the ground, the mudfish comes out as lively as ever. One of this family has lately gone to live in an aquarium in England, where his ways can be studied; and now we shall know how he gets on in water all the year round.

A Big Flower.—What do you say to a flower bigger than a dining-plate, and weighing three or four pounds? What a button hole boquet that would make, especially if you added one of its leaves, over eight feet across! This is the giant flower of the world, I'm sure, and it is a water lily which grows in South America, near the giant river of the world. Just fancy a pond covered with these enormous leaves, each weighing about a dozen pounds, and covered with long-legged water birds, of all sorts, who run about on them, without the least danger of wetting their toes. And think of the buds, as big as your head, and the large white, flagrant flowers.

Good Health.

How to Treat Sun Stroke.

The unusual visitation of sun stroke in this State during the last three weeks calls attention to a subject which Californians have had very little cause to consider. Although the occasion for remedies and preventatives has probably passed for this time we give them in order that our readers may have them at hand for any future emergency. The sanitary committee of the New York board of health in speaking on this subject says:

"Sunstroke is caused by excessive heat, and especially if the weather is 'muggy.' It is more apt to occur on the second, third, or fourth day of a heated term than on the first. Loss of sleep, worry, excitement, close sleeping rooms, debility, and abuse of stimulants predispose. It is much more apt to attack those working in the sun, and especially between the hours of 11 o'clock in the morning and four o'clock in the afternoon. On hot days wear thin clothing. Have as cool sleeping rooms as possible. Avoid loss of sleep and all unnecessary fatigue. If working in-doors and where there is artificial heat, see that the room is well ventilated.

"If working in the sun wear a light hat (not black, as it absorbs heat) and put inside of it on the head a wet cloth or a large green leaf; frequently lift the hat from the head and see that the cloth is wet. Do not check perspiration, but drink what water you need to keep it up, as perspiration prevents the body from being overheated. Have wherever possible an additional shade, as a thin umbrella, when walking, a canvass or board cover when working in the sun. When much fatigued do not go to work, or be excused from work, especially after 11 o'clock in the morning on very hot days, especially if the work is in the sun. If a feeling of fatigne, dizziness, headache or exhaustion occurs cease work immediately, lie down in a shady or cool place, apply cold cloths to and pour cold water over head and neck. If any one is overcome by the heat, give the person cool drinks of water or cold black tea or coffee, if able to swallow. If the skin is hot and dry, sponge with or pour cold water over the body and limbs, and apply to the head pounded ice wrapped in a towel or cloth. If there is no ice at hand keep a cold cloth on the head, and pour cold water on it as well as on the body.

Restoring Persons from Drowning.

The following directions are circulated by the Humane Society of the commonwealth of Massachusetts, 1875:

1. Lose no time. Carry out these directions on the spot.

2. Remove the froth and mucus from the mouth and nostrils.

3. Hold tho body, for a few seconds only, with the head hanging down, so that the water may run out of the lungs and windpipe.

4. Loosen all tight articles of clothing about the neck and chest.

5. See that the tongue is pulled forward if it falls back into the throat. By taking hold of it with a handkerchief it will not slip.

6. If the breathing has ceased, or nearly so, it must be stimulated by pressure of the chest with the hands, in imitation of the natural breathing; forcibly expelling the air from the lungs, and allowing it to re-enter and expand them by the elasticity of the ribs. Remember that this is the most important step of all.

To do it readily, lay the person on his back, with a cushion pillow, or some firm substance under the shoulders; then press with the flat of the hands over the lower part of the breast bone and the upper part of the abdomen, keeping up a regular repetition and relaxation of pressure twenty or thirty times a minute. A pressure of thirty pounds may be applied with safety to a grown person.

7. Rub the limbs with the hand, or with dry cloths, constantly, to aid the circulation and keep the body warm.

8. As soon as the person can swallow, give a tablespoonful of spirits in hot water, or some warm tea or coffee.

9. Work deliberately. Do not give up too quickly. Success has rewarded the efforts of hours.

How Typhoid Fever May be Spread.—Dr. Frankland, in a recent address to the Fellows of the Chemical Society, on the Organic Impurities of Drinking-water, adduced, as a striking instance of the persistency of the typhoid poison when diffused in water, the outbreak of a violent epidemic of typhoid fever in a Swiss village through the use of spring water, which, after contamination with the poison, had filtered through nearly a mile of porous earth, but had nevertheless lost none of its virulent properties. The occurrence in question is one of the most remarkable, if not the most remarkable, on record.

A Grotto of Health.—At Monsummano, in the province of Lucca, high up in the picturesque Apennines, there is a cavern famed far and wide for its beneficent effects on chronic rheumatic sufferers. The invalid breathes the temperate air of the cave, bathes in the medicated waters that drip from its walls, and bids farewell to his sufferings. Such, at least, was the experience of Herr Hugo Knoblauch, a respectable German traveler, who has written a book on the grotto and its effects, well spoken of by our Prussian cotemporaries.—*Medical and Surgical Reporter.*

Domestic Economy.

Why Girls Should Learn to Keep House.

Quite enough, says the *Housekeeper*, has been said of the moral obligation that girls are under to master housekeeping. Such arguments influence most persons but little, and they are specially distasteful to the young. Better make a task attractive than insist on its being viewed as a duty. Tell any one she ought to work, and she naturally rebels; but show that work brings independence and comfort, and her energies are stimulated.

Why not put the domestic problem on the same status. Don't force your daughters to learn to cook, sweep, and sew, whether they like it or not; but make them feel that a knowledge of these arts is both useful and honorable. All women are taught self-respect; but is not respect based on practical capacity and knowledge higher than that which is the outgrowth of nothing but regard for personal appearance.

A girl who has learned how various foods ought to be cooked, how beds should be made, how carpets should be swept, how furniture should be dusted, how clothes should be repaired, turned, altered, and renovated; how purchases can be made to the best advantage; who understands the laying in of provisions, and how to make them go the farthest and last longest, may make herself valued and respected, either in the position of daughter, sister, wife, or if dependent on strangers for support.

A woman who is merely a drone retains her position in the family circle only by sufferance. If she is a busy bee, and can contribute by her thought and labor to the common weal, she need not claim a position—it is already hers.

Many young persons are too ambitious, and wrap up their humble talents in a napkin. This is a mistake. To know how to keep house is not a mere bread and butter matter—it is an occnpation which has called out the best intelligence of some of the most cultivated and refined women in the land. It is no small task to excel in this vocation. Many wives and mothers perform not inferior labors in the conduct of their homes to what their husbands display in managing their business affairs; and they deserve eqnal, if not greater, credit for the results of their labors.

Again, what better preparation could be devised for a married life than to know how to conduct a household successfully—not stintingly, nor yet with extravagance, but fully appreciating the value of economy, order, variety, and health? A bride at the altar, who feels a conciousness of her capacity to conduct her husband's home in a thorough and systematic manner, has a decided advantage over another who lacks these advantages. How many famous men have owed a large share of their success to their wives? In short, marriage is apt to make or mar a man's future, and all depends upon the character or capacity of the wife.

The equality which the champions of woman suffrage seek is but an empty name compared with that real equality in marriage where husband and wife each feel and acknowledge the other's qualifications. Marriage then becomes a true partnership, and both members contribute equally to its prosperity and advancement. To secure this rare happiness, train your daughters up in such a manner that they will both desire to help their husbands and know how to do so when the time comes.

How to Keep Sugar from Getting Hard.

Editors Press.—Every farmer's wife who has lived in California one summer knows how hard sugar is to dig out. Sometimes we have to take a crowbar, or hammer and chisel and make fire fly. Sometimes we get a hard lump in the sugar bowl and try to mash it up, when out goes a piece, or the bottom of the bowl. When you open a barrel of sugar just dip it out, put it in the barrel you have just emptied. Be sure and mash the lumps as you put it in the old barrel. Do not press it down but drop lightly, and thon your trouble of hard sugar is over. Try it once.—Mrs. S. J., Berryessa valley.

Fat Meat.—A celebrated French instructor in the art of cookery, says that fat meat is the most profitable. He adds: Many buy inferior meat on account of the waste of the fat that is always found in good meat. When the fat is wasted it is the fault of the cook, who does not know how to use it. Tho fat skimmed off the broth of boiled meat, and that coming from the trimming of raw or cold beef, is much superior to lard to fry with. Lard flies all over; beef fat never does when properly melted. To melt beef fat or suet, cut it in small pieces, and set on rather a slow fire, in an iron pan. As soon as it begins to melt, skim the melted part off with a ladle, and turn it into a stone jar, which you cover when cold. Put it away in a cool, dry and dark place. A careful cook never needs lard for frying purposes, but always has more fat than is necessary out of boiling or roasting pieces.

Boiled Wheat Porridge.—Having soaked over night one pound of good wheat in pure soft water, strain the water off and add a quart of fresh; stew it gently till quit soft. It may be eaten as wheat-meal porridge.

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SAN FRANCISCO

Saturday, July 22, 1876.

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The Week.

The harvest progresses with varied features. The notee of disastrous fires continue, bnt far and near the farmers have rallied aud set bounds upon the flames. The gratuitous threshing of the north wind has, in some cases, preceded the separators, and low yields per acre are reported. On the other hand come reports of unexpected bushels, and thus the general equality of prosperity is preserved when we view our agriculture as a whole. The fruit harvest proceeds with full honnty. The canning establishments are clearing for their heavy season's work. The vine grows apace and the vintage promises well for quanlity and quality, but the profit in some of our largest districts is ae yet a problem.

In the city the wheat trade lingers and awaits the will of the farmer. As it now appears the speculators in charters, instead of getting a corner in ships may he getting their shipe in a corner. The days of demurrage draw near and the grain will not come at the prices which the speculator proposes. A matter of necessity may expand their views. In part ae a result of the holding of the wheat, bags are down and the "ring" mourns. Just at present the outlook seems to possese points of promise. Nor is the pictnre darkened by the reports which come from Boston and New York describing an unusual activity in California wool. Let snch notes of improved and revivin trade increase and occupy the futnre.

Practical Entomology.

Our readers must have noticed from our columns that ths numbers and kinds of noxious insects are rapidly increasing in our State. In almost every issue we have notes or queries concerning some newly discovered pest in onr orchards or grain fields. There can be no doubt that as we are introdncing new trees and plants from all parts of the world, we introduce also the eggs or larvæ of the injurious insects which infest them. Aside from this source of evil there are doubtless many species of insects which have been existing for years upon the wild vegetation of the coast, and now are quite willing to thrust tooth and proboscis into the tenderer growth of cultivated trees, shrubs and plants. In view of this infliction of agencies which will work wide loss to our farmers if antidotes and prevoutatives are not applied, it seems to us that our farmers and orchardists cannot afford to neglect that means of warfare which has succeeded best in the reduction of the evil in older agricultural regions.

He who succeeds best in the struggle with a wily and insidious foe is he who best understands the vulnerable points of his enemy. This must be the method of success in the effort to protect our crops from ths foes which float upon the wind and whose coming is past finding out. There must be sharp and decisive action to crush the offender, and employ every influence to prevent his reproduction of his kind. In the matter of insects more depends upon a practical understanding of them than one is wont to imagine. The labors of the entomologists in the older States have saved the farmers millions of dollars. The popular description of the chief insects which prey upon the crops, and means for checking their ravages has placed many a farmer on his guard and saved many an acre from destruction. More than this, the science of entomology has been shown to be so closely allied to farm practice and so valnable as a practical study for farmers, that many of our farmers have mastered its principles and are prepared to meet the noxious insects on their first approach. It is the advantage of such action as this that we wish to allude to at this time.

Although we are hearing from day to day of the discovery of new insect pests, our State is as yet comparatively free from them. The older regions are beset by injurious insects which have not yet come to us. It seems to us then that now is the time for us to take quick steps toward possessing the knowledge which will be invaluable when the trouble comes. To do this we recommend the study of entomology as one of the safest and most practical precautionary steps which our agriculturists can undertake. So much of the science as will be of advantage to our farmers can be acquired with a fair bestowal of time and application. Of course there are mysteries in the science which the sharpest scientific eye is divided upon. These matters of intricacy have very little practical bearing upon the questions which the farmer will have to decide in his study of the insect world. A knowledge of entomology is acquired by observation. It is best learned by the study of the insect itself. Books on entomology are but guides to the observation; they contain the truth which others have discovered, classified and arranged into a system. They are essential to the student because they enable him to profit by the studies of all the men who have preceded him, but to make his research of practical value to himself the student must prove in nature the statement which he reads in his books. No one has advantages for such study superior to the agriculturist. His problem lies directly under his eye. As he works in his garden, his orchard or his field he sees the many forms of insect life passing before him. Some insects are his friends; some are his foes. Some will ruin the labor of his hands; some will preserve it by preying upon the destroyer. Who has both opportunity and incentive for inquiring into a matter of such importance, better than he who is most affected—the farmer?

The study of entomology enables one to learn the character of an insect from an examination of it. To the unskilled observer all insects are "bugs" and nothing more. The entomologist looks closely at all the parts of the insect and can discover for what style of food nature has prepared him. He will soon decide whether the specimen is a marauder, destroying valuable substance; or a scavenger, doing good service in clearing away that which is best removed. If an evil insect be found he studies its habits and discovers the antidote which will destroy it and the time in its growth when the remedy can be best applied. These are questions of the utmost importance and farmers are often forced to considerable trouble and expense to settle them.

We have mentioned the importance of the study of entomology in the hope that a number of our younger readers would take up the subject. Here is a chance for them to employ time to excellent advantage and gain an ability which will be of lasting value to them and to the whole community in which they live. Let them take up some text book like "Harris' Insects Injurious to Vegetation" or "Packard's Guide to the Study of Insects." These will give the rules for the classification of insects and the points of discrimination between them. They will give explicit directions on the best methods of original study in the field. After learning the elementary points of classification, the student should proceed at once to make a collection of all the insects he can find in his neighborhood. This cabinet should be kept in good form for reference. When the student has mastered the insects which are found in his locality and learned their habits and characteristics he will be prepared to detect any new pest which may be found and be able to act quickly in arranging to stop its ravages or its increase.

If there should but one young man in each township take the hint which we have given and thoroughly inform himself in entomology we should have a corps of practical and competent observers whose labors would put a sure check upon the spread of noxious insects. From the research and practice of one energetic insect fighter a whole community could be placed in possession of the effective weapons. We can assure any young person who desires to undertake the line which we have marked out that he will find the study of deep interest and satisfaction, if he pursues it thoroughly and systematically. The insect world is full of wonders and mysteries of which the uninitiated do not dream. The beauty of the wonder and mystery is that it can be seen by patient watching. We hope to hear of the success of many of our readers in this line of useful investigation.

Preservation of Levees.

To those of our readers whose lands lie behind the levees and whose crops depend upon a secure holding back of the waters, there are few questions more important than those which look to the most perfect preservation of their embankments. It is important to discover what agencies preserve and what destroy the farmer's labor. As the work of reclamation proceeds, or rather so long as the filling up of the river beds is permitted to continue, the levee grows in importance. We trust that all interested farmers will give the matter their practical consideration and govern their action for the good, not only of themselves, but of the whole agricultural interest adjacent to them, in order to determine what is the proper treatment of levees to give them strength and to guard them from destroying influences. We invite our readers to discuss the matter in our columns, and each contribute his experience to the end that all may know the truth. We have been not a little interested in reading a report which Mr. Honan, of Yuba city, lately made to the directors of levee district, No. 1. From his report we shall take certain points which indicate his method of preserving the levees of the district:

He examined first the condition of the levee. It presented a very unsafe and neglected appearance. Throughout its entire length. 18 miles, it was covered with a mass of foul weeds, the evident accumulation of years, with here and there piles of brush that had been hauled from adjacent fields, old poles, posts, and driftwood, all of which formed excellent harbors for squirrels and other burrowing animals and placed them beyond the reach of any exterminating agency To clean and burn up this mass of accumulated nuisance was the first step towards improvement. This being accomplished he examined it all over carefully to ascertain what injury it had sustained, and found in some places it was almost a perfect honeycomb, from gophers and squirrels. In several places the squirrels had penetrated through it, going in at one side and out at the other. He also found that where the levee ran some distance from the house along the slough and marshes, the badgers and polecats did great injury. In several cases they had dug through it, making holes six inches in diameter. When the winter rains begin the gophers and squirrels desert the low, wet ground, and take to the levee. By a continued vigilance and a free use of poisons, the levee is now free and comparatively safe from those pests, and will be an easy matter to maintain it so in the future. Mr. Honan found that squirrels were about equally distributed throughout the levee, while gophers were more numerous where alfalfa was sown on or close to it. He believes there is nothing more injurious to a levee than alfalfa, as it attracts all the gophers to it. Farmers owning land adjacent to the levee should leave about two rods wide on each side and fence it for pasture; thereby rendering breaks less liable to occur. He has come to the conclusion that to make the levee safe it must be fenced and pastured during the winter and spring months This is of the first importance and demands earnest attention.

In concluding his report, Mr. Honan remarks, "as so much depends upon the stability of the levee, it is well to consider it in all its bearings, and as we have difficulties to contend against in maintaining levees not known in other countries, their histories will not answer as a precedent for us to go by; therefore it is necessary that we collect our own data for future reference." This is true and we trust the advice will lead others to an investigation of the subject.

QUERIES AND REPLIES.

Rabbits, Borers and Grafting.

EDITORS PRESS:—Please tell me through your paper the most efficient remedy to keep rabbits from eating the bark of fruit trees; also is there any remedy for a little flat-headed grub which works under the bark of trees and either girdles them entirely or causes a big part of the side of the tree to die; also, what time in the year is best to graft trees?—E. R. S., West Las Animas, Bent county, Colorado.

1. A method to guard against rabbits is to wrap the trunk of the tree with any kind of old cloth or stiff paper, and occasionally saturate the wrapping with coal oil or coal tar. If you get a bucket of blood from a butcher, or from some neighbor who is killing an animal, smear the bark of the tree with it. We are informed that this is a sure preventative. Do our readers know of any better way?

2. The "grub which worke under the bark" is doubtless a kind of borer. In the PRESS of April 15th, Mr. Reed recommends a thorough soaping of the tree with wood ashes or soft soap. In the PRESS of June 10th, Mr. Garvin recommends a soaping of the bark to kill the eggs, and forming a basin around the base of the tree and filling it with boiling water to kill the grubs. We have noticed in our exchanges during the week the following methods proposed by practical men. One writes: I cut a sumac, or elder, one foot more or less long, punch out the pith, cut one end with a slope, hunt the borer's hole, clean it out at the entrance with a wire, place the beveled end of my tube against it, take some putty-like clay, plaster it water tight around the end next to the tree, fill it with very strong soapsuds, and the thing is done. No matter how crooked the hole is or whether it goes up or down, the suds in the tube will force itself to the end. I have tried it two years, and have not failed once. Of course, any kind of small, hollow tube will do, anything that will make it water tight will to do plaster it with. Another fruit grower has applied lime with good effect. He went into his shed, where he had some air-slacked lime, and took out some of it, and dug away the soil around the tree, forming a sort of cap, and filled it with lime well up around the trees. Two weeks after he looked at the trees again, and found a new crop of borers had come; upon digging away the lime, he discovered they had begun operation. However, on further examination, it appeared they had not even penetrated through the bark, but were dead and dying. Since that time he has seen no signs of borers, but the trees are in a thrifty condition. He put the lime four or five inches deep all around the tree, and drew the soil around it to keep it in place.

3. The best time to graft is in the spring, when the sap starts.

Butter from Alfalfa.

EDITORS PRESS:—Is alfalfa good feed for milch cows when butter making is the object? I find feeding green corn, hurr clover, blue joint grass or even dry barley hay gives good butter. But as soon as I give alfalfa, though the quantity of milk is increased, the cream seems entirely changed and it is almost impossible to get butter to come, and if it comes is rather inferior in color and flavor. Have others made these complaints or noticed any of the differences I name?—COLONIST, Westminster Colony, Los Angeles county.

From the butter which we have seen in the city markets made from alfalfa, we should say that it is certainly a good feed. The only fault with the butter is a little tendency to softness, but whether this is the feed or some peculiarity in the making, we cannot say. We have heard of no such difficulty with alfalfa as our querist names, and if any of our readers have, we hope they will write us their experience. We could account for the wrong in the butter from churning at too high a temperature, but our querist has, we infer, handled the milk from all the feeds he mentioned, at the same temperature. We hope our dairymen who are feeding alfalfa will give us fully their practice and results.

Commission Merchants.

EDITORS PRESS:—I am a subscriber to the RURAL PRESS and have been a long time, and I would feel obliged to you if you would inform me of two or three trustworthy and honest produce commission merchants to whom I could send a consignment of sweet potatoes. —SUBSCRIBER, Santa Barbara.

We cannot do better than refer our queriet to the commission firms advertised in the RURAL PRESS. We have heard good things said of them by our readers.

To Keep Squirrels from Fruit Trees.

EDITORS PRESS:—To keep squirrels from gnawing fruit trees, or climbing and getting the fruit, tie a newspaper around the trunk of the tree, letting the paper extend out four inches at the upper edges. The rattle of the paper when the squirrels attempt to get over it will frighten them. Take away the paper at the commencement of the rainy season and burn it, as it will be found often filled with caterpillar eggs. —J. J. DEMMICK, Santa Barbara, Cal.

The Alfalfa Parasite.

We have been favored with a visit from Mr. C. W. Clark, of Lakeside, Tulare county. He finds his alfalfa sore beset with "dodder" of which we have made mention from time to time. He proposes to try to overcome it with top dressing of strong alkali soil, in the hope that the application will kill the parasite without extending far enough to kill the alfalfa. We desire to ask our readers to give us the result of any methods which they may have used to kill the dodder. It is some time since several remedies were proposed in the PRESS. Will our readers tell us whether these or any other have been successful.

ON FILE.—"Raisin Drying Floors," G C. H.; "Notes from Capay," "Farm Life," M. J. H.; "Centennial Chat," "Mary Mountain."

Interest in California.

To the capitaliat, the fact that a high rate of interest rules in California, is a subject of congratnlation, but to the masa of the people it is a great drawback, as well aa an impediment to the growth of the State. Capitalists do not care to undertake the risks of businesa so long as they can get a high rate of interest on their money. Of course no one can blame them for this, but it is none the less to be deplored. The manufacturing interests of the State of California have never been upheld as they should have been for thia very reason. The mining and agricultural interesta have also felt the banefnl effecta and there is scarcely any branch of business which has not bsen retarded.

Take it all in all the ruling rate of interest in this State may he considered as one per cent. per month, varying of course with the money market but oftener going above than below that figure. The large borrower with *city* securities gets it cheaper sometimes, but the small borrower with *country* securities never does. In fact it is very difficult to get money at all from city capitalists on property sitnated outside of San Francisco. and when it is procnred it is at an advanced rate.

The farmers here, aa elsewhere, always want money to pnrchase sacks, implements, etc., and in thia matter are not alwaya as independent as the prevalent idea of their calling would imply. They are nearly always dependent for a temporary supply of funds on the country storekeeper, for small local banks are not aa numerous as would be convenient, the bulk of money accumulating in the city for reasons before stated. The storekeepers in the interior of this State derive a large proportion of their income from this source, but such high ratea of interest are charged that it keepa the farmers poor to pay it. One and a half and two per cent. per month are not by any means unuaual chargea, hut money is never procured under these circumstances, for less than one per cent.

The interest rate is probably less burdensome to the working miner than to the working farmer, for he takes ont his money as he goes along as a general thing. But the mining interests at large feel its hurtful effects no lesa than the agricultural. There are hundreds of mines all over the country which could be worked to a profit could capital be provided to furnish machinery and properly develop them. But unless a perfectly sure five or six per cent. per month profit is shown to the capitalista they wont touch them. As to lending money on claims, that is out of the question, unleaa they are fully developed and have machinery and portab'e property which will more than cover the loan. With investments they must have a controlling interest or none at all.

This is aside from stocks of course and refers to legitimate mining enterprise alone. As to stocka of minss on the stock board, money can be procured on them accor.ding to their atandard and the atate of the market. But with what are called outside stocks this is not alwaya the caae. It seema somewhat atrange, but is none the lesa true, that money can be more easily procured on atocks that may be worth hundreda or nothing in a weeks time, than it can be on a farm with a permanent value.

More manufactories are needed in this State to anpport a certain part of the population, and to utilize ita products. Page upon page might be written to prove that millions are annually lost to ua which might be saved, were different manufactories established. Every cargo or train of manufactured articlea brought from other countriea help to keep idle our mechanics and decreaae the wagea of those who are already employed. We are importing every day manufactured articles which could be made at home, better and cheaper, and at the same time give employment to those who need it. As long, however, as the capitalist can sit at his desk and get one or one and a half per cent for hia money, without riak or labor, he will not put it into any new manufacturing industry. Arguments about building np the State or giving employment have no effect upon him, who cares nothing for either as long as he geta his "cent per cent."

It is not, we contend, our increase of population which causes so much idleness and comparatively low wages, bnt the high rate of interest which prevails. California ought to anppoit comfortably five or ten timea as many inhabitants as are now within her bordera. But before she can do it with credit, the rates of interest mnst be lowered. Unleas this is done mannfactuiing industry must languish, the mining interests will decline and the farmers keep poor. Capitalists should not make such broad distinctions between city and country property. They seem unfortunately to be impressed with the idea that nothing outside of San Francisco ia worthy of financial attention. If it were not for the interior of the State, San Francisco would amount to but little, as she depends almost entirely on the interior for her prosperity. With an increase of prosperity in the interior comes a corresponding increase here, and our capitalists should rid themselves of any belief to the contrary.

The more mechanics, citizens, farmers or laborers there are who come to reside with ua the better it is for the State, bnt they mnat be fonnd employment, which it is the dnty of the capitaliat to provide. Loaning money at such rates that thoae desirons of establishing mannfacturing enterprises can get no profit, is not fostering industry, as some persons seem to suppose, bnt does more harm than good. When one fails under these circumstances others fear to make the attempt, and so onr manufactures are few to what they ahonld be.

We must confess, in conclusion, that we are in the aame predicament as the borrowers, who see no way out of it bnt to accept the situation, of which the capitalists have the best. As long as they can get high rates of interest they will take them; and aa long as lending money without risk pays better than investing it in business enterprises, they will lend it. But the aituation does not impress one with any very exalted opinion of the California capitalist who may glory in the richness of the resonrces of the State, but does nothing whatever to assist in developing them. We shall continue this subject next week, and mention some of the reasons why capitalists from abroad should be encouraged to extend their loans here, and how they can do it on a safe basis.

The Eastern Heat.

A correspondent in New Jersey sends ua an account of the effect of the heat, which, if the writer were not a minister, we should think waa warmed up a little with the imagination as well as the solar heat. We hope the following will help onr readers to appreciate the situation. It appears to us that the inventors of "Jersey lightning" are already getting a foretaste of their hereafter. Our correspondent writes:

"There is but one snbject worth talking abont at present. It ia the heat. For four weeks we have had not one drop of rain. For over two weeks the thermometer haa reached 90 every day. Yeaterday I preached twice at 98 in the shade. My beautiful garding saas ia completely burned np. The mossy turf in the front yard bears the appearance of a much frequented beer garden. The flower beds are like last Christmas' decorations. The thermometer in my study got so high last night, that it is now suffering from acute and merited delirium tremens. We boil eggs by immersing them two minutes in the well. Black broadcloth burns spontaneously betwsen here and the post office. Ice is 75 cents a hundred. It melts at the rate of 100 a minute. Languor and disease invade this trembling house of clay. Collars starched to the verge of imporosity are reduced in five minutes to spisaitude. Incrassated linen cuffs languish in half that time. Stephen H. Tyng, Jr., told me that he used seven clean shirts last Sunday, fact. I am persuaded that the sources of the nihil are under the equator. I shall be reduced to nonentity in a few days. We are obliged to keep the baby in the refrigerator. She is served up every two hours in a atate of incineration. A two hours' drive brings milk to the door in the shape of Dutch cheese. The butchers deliver only roasted roasts. Every day is Fry-day. Every day is Snn-day. Every day ia Moan-day. Every day is Sat-ur-ate-day. Every day is Thirst-day."

Botanical Excursions.—Now that Mr. Lemmon's second series of "Botanical Excursions" is complete and our readers have had the opportunity to judge them, we think we speak the sentiments of very many readers when we thank the writer for the valuable information which he has imparted in his most delightful and entertaining way. His writings glow with his genial spirit, they reflect the picturesque beauty of his perceptions, the freshness of his imagination and the kindness of his heart. We express our opinion of our contributor in this frank way partly becanae the expression is justly due him, and partly to give prominence to the fact that such qualities are possessed by a man who is none the less thoroughly and devotedly acientific. Mr. Lommon is to us evidence that true science is not incompatible with the truest, kindliest manhood, and we rejoice to see it exemplified. Of the valuo of Mr. Lemmon's acientific work we need not speak. We believe the forthcoming California botany will show the State's indebtedness to him in this respect.

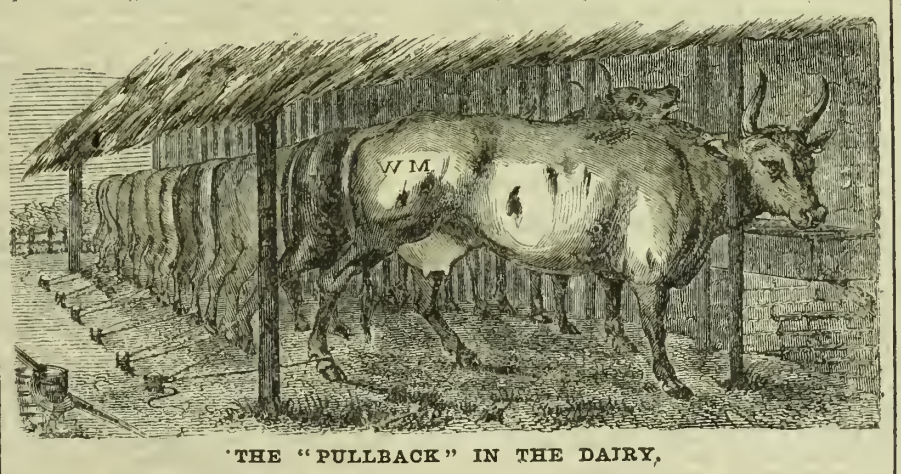
The city training ship *Jamestown* will shortly start on a cruise to the Sandwich islands.

An Australian Dairy.

The history of dairying contains as many interesting and peculiar features as the history of the other industries of men. The early churning by shaking the milk in a bottle made of goat skin, need not be instanced, for there are so many more recent instances of rude working. There are many men who can remember when the great cheese interest of central New York was founded on a curd handled in a wash tub. The progress which has been steadily making, until the dairyman has reached the comparative perfection of the present, is marked here and there by quaint conceits and startling devices.

In glancing through an old French book, written a generation ago, we find an account of a dairy in what was then "New Holland," near the city of Sydney, in the New South Wales of the present day. The traveler was an enthusiastic Frenchman, and in his description, which we shall translate below, gives a hearty approval to the things which he saw and heard. We also reproduce on this page the engraving with which his description is attended. He wrote as follows:

"We arrived at the dairy at milking time. They had not less than 150 cows. Each cow had a name by which the milkers were in the habit of calling them. The cows are placed in an open shed covered by a thatched roof. Each cow found for herself her own stall and placed her head between the stanchions, which, when closed, forced her to keep quiet. One of the hind feet of each cow is attached by a cord with a noose to a stake not far off, which prevents her kicking the bucket. By means of these arrangements, very simple in their disposition, the milk is drawn with the greatest of ease and not a drop is lost. Half a dozen milkers are enough, ordinarily, to milk the herd, and they do not employ more than an



THE "PULLBACK" IN THE DAIRY.

honr in milking. When the milking is over the cows are turned out, and their places under the shed are taken in the evening by another herd of 150. The owners of the dairy have a considerable number of cows, and as they nearly all have calves, it becomes useless to milk them many times a day.

"The milk is received in large buckets and taken at once to the dairy, where it is made into butter and cheese. The dairy house is built with double walls and ceilings, which prevent the heat of the sun from penetrating into the interior rooms. In winter, a hot-air stove keeps constantly an equal temperature. Large tables of marble receive the masses of butter from the churn, and it is made up into little pats of one pound each, properly stamped, and which in lots of five or six hundred are forwarded to Sydney. Thanks to all the precautions taken in this dairy, the butter is of uniform quality at all seasons, and is famous. How could it be otherwise. Nothing is spared to arrive at perfection. The cows are of the best breed, and are well taken care of. They have a permanent pasture of green feed. The dairy maids in charge of the establishment were selected from the best of German and Swiss butter makers."

To us the system of care of dairy cows which is outlined in the paragraphs we have translated, is a peculiar mixture of light and darkness. The idea of having the cows so docile that they would answer to their names, and so thoroughly domesticated that each one would go to her own stall and put her head in the stanchion at milking time, is as perfect as anything which recent dairy progress has accomplished. But when this much has been gained, the plan of introducing the "pull back" and fettering one leg with a rope, seems to completely break the poetic beauty of the rest of the treatment.

We must take this traveler's story with some grains of allowance. He tells of six milkers milking 150 cows in an hour; this would be 25 cows each milked in an hour, and we are forced to believe either that the dairymen told the stranger a tough story, or that the milkers were far beyond the average in length and speed of fingers, or that the cows were quickly milked on the principle, which is upheld by science and practice, that a short horse is soon curried. The influence of the "pull back" on the speed of milking is not described. It is supposable that cows can be accustomed to almost anything, but in our opinion a cow of good sense would pull back her milk just as tightly as the milker pulled back her leg.

This picture of early dairy practice is not without its light side. Much enterprise is manifested in the arrangements of the dairy house. The brief description hints at many valuable points. The double walls and ceilings to control the temperature are still employed for that purpose. Marble tables to mold the butter on are an elegance we seldom hear of. Indeed, the establishment seems very business like and creditable, except in the one regard which we have commented upon. Too much fault must not be found with one singular practice, for every business has its drawbacks.

New Books.

"Broom Corn and Brooms" is the name of a new treatise on the raising of broom corn and the making of brooms on a small or large scale. It is published by the Orange Judd company of New York, and is for sale by A. Roman & Co., San Francisco. It is a pamphlet of 57 pages, well illustrated, and will be found to contain many useful hints about an industry which has been very little written about.

"Ishmael; or, In the Depths," is Mrs. Emma D. E. N. Southworth's latest issued work, published in book form, for the first time, by T. B. Peterson & Brothers, Philadelphia, Pa. It is the best work ever written by Mrs. Southworth, and has never before been published except in the New York *Ledger*, in which paper it was issued many years since, under the name of "Self Made; or, Out of the Depths." For sale by Roman & Co., S. F.

We have received No. 3 of Williams' household series, entitled "Ladies' Fancy Work—Hints to Home Taste and Recreations." It is written and compiled by Mrs. C. S. Jones and Henry T. Williams, and published by Henry T. Williams of New York. As the name indicates it is a book devoted to the description of a thousand things which may be made by a skillful needle and handy scissors, and covers the whole field which ladies call fancy work. In this department of home industry it will be a classic, and will be worthy of a place on every lady's sewing table. It is for sale in San Francisco by A. Roman & Co.

We are advised by Scribner & Co., of New York, of the publication of special midsummer holiday editions of their *Monthly* and *St. Nicholas*. This special number of *Scribner's Monthly*, which will be entitled "the midsummer holiday number," will comprise 160 pages, contributed by the most eminent writers. The illustrations will be profuse in number, and specially notable as specimens of the designer's, engraver's and printer's arts. All that culture and skill, developed by a fruitful experience, can do to make this number of the magazine attractive will be done. The edition will be 75,000 copies. The August number of *St. Nicholas*, the "midsummer holiday number," will be found, in regard to the quality and quantity of its contents, an extraordinary issue. From our knowledge of Scribner & Co., and their style of publication, we are sure that their effort will result in something especially excellent in periodical literature, and we doubt not readers will be delighted with the holiday magazines.

A Serious Fire.—We regret being called upon to record a serious loss which has fallen upon the Averill chemical paint company. On Wednesday morning, of this week, their store and office on Pine street was destroyed by fire and the stock on hand burned up. Although this is a severe loss the company do not on that account allow their business to be interrupted in the least. The office will be for the present at the factory, on Townsend street, near Fourth, and, as they have on hand there a large stock of paints and oils, customers can be supplied as usual without any delay. The Averill chemical paint company has been now so long established here, and their product is so well known and liked, that its many friends will regret to hear of the loss. The stock destroyed was partially insured.

Washington College.—As appears by a card in our advertising columns, Washington college, at Washington, Alameda county, Cal., will begin a new year, July 27th. Rev. S. S. Harmon, principal, is well known to many of our readers, for their sons and daughters are, or have been, under his charge. The college is largely patronized by agriculturists. During the vacation the buildings have been thoroughly painted and refurnished, and, with the addition of several able instructors to the faculty, the year will open under very favorable auspices.

Spanish Raisin Making.—We are pleased to call attention to an effort now being made by one of our city commission firms in the interest of raisin growers. In an advertisement in another column, Messrs. Feusier & Spafford, of 310 and 312 Clay street, give notice that they are prepared to give free information concerning the Spaniah style of raisin making, and to furnish cuttings of Malaga grapes to all who desire them.

A London *Times'* Paris dispatch says the Chamber of Deputies has unanimously passed the bill authorizing the International exhibition of 1878.

State Fair—Premium List.

The State Board of Agriculture propose to make the fair this year one worthy of the State on the occasion of the Centennial year of the nation. They are making extra exertions in this direction, and their experience in the past will help them materially to accomplish their design. The premium list has just been printed, and we have been permitted to examine an advanced sheet. The list has been increased materially, both in number and variety of articles, for which premiums are offered and the amounts of the premiums have in many instances been considerably increased. And in addition to the regular premiums offered by the board, individual members of the board have offered special gold medals for special exhibits in the several departments. They are five in number, and each is to be of the value of $100, as follows:

Special Gold Medals.

By the proprietors of the *Spirit of the Times*, value $100, for the best exhibit in any department.

By Baker & Hamilton, of Sacramento, value $100, for the most meritorious invention, invented between September 29th, 1875, and September 15th, 1876.

By Christopher Green, value $100, for the most meritorious exhibit of handiwork by a young miss under the age of 15 years. Exhibit to be constructed between September 26th, 1875, and September 15th, 1876.

By E. B. Mott, jr., value $100, for the best display of mechanical products of California manufacture.

By President Carey and Director Cox, value $100, for the best bull of any age or breed.

Besides these special gold medals given by individual members of the board, the board offer seven gold medals—one for the most meritorious exhibition in each of the several departments of the exhibition. The exhibition is classified as follows:

First Department—Live stock.
Second Department—Machinery, implements, etc.
Third Department—Textile fabrics (mill and domestic products), and juvenile department.
Fourth Department—Mechanical products and California inventions, designs, etc.
Fifth Department—Agricultural products.
Sixth Department—Horticultural products.
Seventh Department—Fine arts, etc.

To make it plain, we will repeat that the most meritorious exhibition in each of the above classes will be entitled to the society's gold medal, value about $100, besides being entitled to compete for the special medal offered by individual members of the board, and the regular premiums offered in the list which we will now invite attention to.

Horses.

The list, as usual, begins with live stock, and the thoroughbred horse, the highest type of domestic animals heads the list. In this class none will be permitted to compete but such as furnish a complete pedigree—tracing the entire line of descent to the English parent on the side of both sire and dam. The standard of authority for the pedigree of thoroughbred horses will be the English and American stud books. For the best stallion in this class $60 is offered, and for the best mare $50. While there is offered for the best thoroughbred sire, with not less than ten of his colts, all thoroughbred, $125; for the best thoroughbred dam, with not less than four of her colts, all thoroughbred, $100; for the best stallion, other than thoroughbred, with not less than ten of his colts, open to all, $75; and for the best dam, other than thoroughbred, with not less than three of her colts, $50.

For graded horses—horses of all work—draft horses, carriage horses, roadsters and saddle horses, liberal premiums are offered; and then comes the sweepstakes, open to all. In the awards in this department blood will have the preference only when in the examination all other qualifications shall be found equal. Best stallion, first premium, silver pitcher, worth $75; second best stallion, second premium, silver pitcher, worth $40; best mare, first premium, silver pitcher, worth $75; second best mare, second premium, silver pitcher, $35.

Jacks, jennies and mules are not forgotten. Following the horses come the

Cattle,

and the Durhams, or Short Horns, head the list. In this class $60 is offered for the best bull and $40 for the best cow, and the same premiums are offered for the best bull and cow of the following breeds: Alderneys or Jerseys, Devons, Herefords, Ayreshires, Holsteins and Holderness. Then comes the following premiums for herds:

Best herd of thoroughbred cattle over two years old, to consist of one male and five females, owned by one person, silver pitcher, worth.....$150
Second best herd, silver pitcher, worth..... 75
Best herd of thoroughbred cattle under two years, to consist of one male and five females, owned by one person..... 40

To wind up this department we have the following very liberal sweepstakes:

Best bull of any age or breed, silver pither, worth.$100
Second best, silver pitcher, worth..... 50
Best cow of any age or breed, silver pitcher, worth. 75
Second best, silver pitcher, worth..... 35
Best bull and five of his calves, under one year old, silver pitcher, worth..... 100
Second best bull and five of his calves, under two years old, silver pitcher, worth..... 50
Best yoke of oxen..... 20

In offering premiums for

Sheep

The board takes no recognition of the present panic, or stampede, among owners of this kind of stock, regarding it as only temporary, as it really is. The premiums are liberal, and are given for all classes of animals, as heretofore. The best ram receives $20, and the best ewe the same sum in all the several breeds, and then the following sweepstakes are offered:

Best ram of any age or breed, and five of his lambs, first premium.....$50
Second best ram of any age or breed, and five of his lambs, second premium..... 25

All the sheep competing for the above premiums must have been shorn the preceding spring.

For Angora Goats

The board have offered the following very liberal premiums, showing that they recognize the goat as one of the most important among the domestic animals in this State: $30 for the best buck, and $25 for the best pen of not less three does, two years old and over; then the following sweepstakes are offered:

Best buck, first premium.....$10
Best buck, second premium..... 20
Best doe, first premium..... 20
Best doe, second premium..... 15
Best pen, not less than 10 kids, first premium..... 30
Best pen, not less than 10 kids, second premium.... 15

The premiums for

Swine

Are in the same liberal ratio, there being $20 offered for the best boar and $20 for the best breeding sow of the Berkshire, Essex, Poland-China and Chester White breeds, and then the following sweepstakes:

Best boar of any age or breed.....$30
Best sow of any age or breed..... 25
Best pen of six pigs of any age or breed..... 20

The premiums for poultry are on a most liberal scale, and they are offered for all the breeds known, and then as a sweepstake $15 is offered for the best trio of fowls of any age or breed.

The second department embraces

Machinery

Of every kind and description, but machinery of California manufacture is given the preference. Among the premiums offered in this department we notice the following: Best display of general machinery from one shop, $40; best display of agricultural machinery by any one house (California manufacture), $50; best header, $50; best gang plow, $100; best two-horse family carriage, $30; best farm wagon, $15; best exhibition of wagon and carriage wheels made from California grown timber, $15.

The third department embraces textile fabrics and materials from which they are made. There is offered for the best exhibit of woolen goods, $100; for best silk goods, $25; for best display of dry goods, $20; for best display of fancy goods, $20; for best display of children's clothing, $25. In this department is the children's premiums, and all the juveniles who have any ambition to compete for premiums should get a premium list and examine it for themselves.

The fourth department includes all mechanical products, and a most elaborate list is prepared and liberal premiums offered.

All manufacturers will do well to examine the list in this department.

The fifth department is a most important one and includes all

Agricultural Products.

The premiums are liberal and well distributed. We notice the following:

For the best bale of California cotton, not less than 400 pounds.....$50
For best display of California tobacco, $25, and silver medal.
Best sack of wheat flour (California manufacture and California wheat), silver medal.
Best two bushels of wheat, Chile variety..... 20
Best two bushels of wheat, Australian variety..... 20
Best two bushels, Club variety..... 20
Best two bushels of any other variety..... 20
Best sample Chevalier barley..... 10
Best sample Nepal barley..... 10
Best sample of rye, not less than two bushels..... 20
Best sample of oats, not less than two bushels..... 10
Best sample of barley, not less than two bushels..... 10
Best sample of buckwheat, not less than one-half bushel..... 10
For the best table of the following varieties of vegetables, exhibited by one person: Parsnips, carrots, beets, tomatoes, cabbage, cauliflower, brocoli, lettuce, onions, peppers, salsify, celery, squashes, sweet corn, watermelons, muskmelons, cantaloupes, cucumbers, Lima beans in pod, string beans, egg plants, water cress, parsley, spinach, radishes, turnips, potatoes..... 30
For the second best table of same varieties..... 20
Best cheese one year old and over..... 15
Best cheese under one year old..... 10
For best and largest display of cheese, diploma and. 20
Best lot 10 pounds of butter, in rolls..... 10
Best tub of firkin, not less than 25 pounds, at least three months old..... 15
Best 100 pounds sugar, made from sugar beets..... 20
Best 100 pounds made from cane..... 20
Best 100 pounds made from melons..... 20
Best five gallons of syrup from either of above named articles..... 10

The sixth department is devoted to

Fruits,

Green and dried; and the extent and liberality of the premiums offered ought to secure the best exhibition ever made in the State. These, among others, are the premiums offered:

Best display of apples.....$20
Best display of pears..... 20
Best display of peaches..... 15
Best display of plums..... 10
Best green figs..... 5
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PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

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The Exhibition will Continue at least One Month.

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Application for space or for information should be addressed to the Secretary of the Board of Managers, Eleventh Exhibition, 27 Post street, San Francisco, or to J. H. Gilmore, Supt., at same address.

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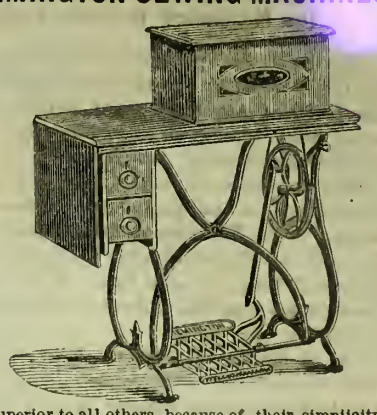
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Statement, December 31st, 1875.

TOTAL RISKS WRITTEN	$3,845,189.00
TOTAL PREMIUMS	79,301.72
LOSSES PAID	821.00
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The Highly Important and Practical Value of the Mechanics' Institute Fair.

The time is fast approaching for the opening of the Mechanics' Institute Fair in this city. On the 8th of August the great pavilion will again throw wide its doors to the public; and the public, educated and interested by its former experience within the walls, will press forward again to read the industrial progress of another year. The prospect is that they will not come in vain, and that this year's fair will surpass all that have gone before in all those things which constitute success in an industrial exhibition.

The applications which have been already made for space exceed the former limits. The popular spirit and the popular interest in the efforts of the managers of the Institute give full assurance that the people are with them, and their work will result in the grandest display of industrial achievements ever made in this city. As this is the case there are several suggestions which we regard pertinent to the occasion.

Honorable and worthy industry thrives by popular approval. To secure approval attention must be arrested and examination courted. Industrial lights do not burn well under bushels; they must be put forward into the free air of popular contemplation. Every producer, every manufacturer, every man who gives form to a worthy work of hand or brain, every man who has succeeded in wrestling things of value from the natural resources of the coast—all these classes of workers owe it to themselves to give their work the advantage of a popular display. They owe it to their own success and to a public to whom their work may be of benefit. In these busy days the people have not time to search long for excellence. They must look, think and act in a moment. They have come to look upon excellence as a thing which is sure to rise where all can see it. In these days of quick thought and wide information, to be unknown is almost to be worthless.

As this is the disposition of the age, wise men have learned to profit by it. The result is that the triumphs of industry, instead of hiding away in by-places, as they did in former years, come out now into the broad daylight of public scrutiny, trial and admiration.

Fostered by this praise and patronage of the people, the industrial spirit has taken to itself new life and strength. Catching new thought from the clash of competitive display, ingenuity has been sharpened, industry has been doubled, and success has been wonderfully promoted. The history of industrial advancement is inseparably connected with the history of industrial exhibitions.

The thought of these truths lead the mind to the opening of the Mechanics' Fair, to which we have alluded. It is impossible to measure the good work which has been done for the industries of this coast by the Mechanics' Institute. Limits cannot be placed to it because the spirit of progress and advancement, which it has implanted and fostered, is still expanding. The full influence of the Institute cannot be measured so long as there is a hammer left to strike, or an anvil to sound the ring of industry on this coast. The Institute works for all our future, and its work will not be done until the honorable labor and enterprise of this coast shall have done their perfect work, and our full growth and greatness shall be achieved. In the hurry of the present we are too prone to forget the future of our labors. If we judge the Mechanics' Institute by the good it has already done and the industrial growth which has already been gained, in no small part by its labors, we have some basis on which to rest an estimate of its value as a factor in our growth and progress, and foresee its future position among the institutions of the coast.

The Mechanics' Institute is a popular institution. It uprose in the ripeness of time in answer to a demand of our industries. It was wisely planned by men whose heart was in their work and whose tireless energy shrank from no effort.

It has ever grown and prospered by the inherent right which there is in it and by the self sacrificing devotion of those in whose hands its management has been entrusted. It is not necessary to recite its history. The facts are generally known. It is not necessary to mention its patrons and promoters. Their names are already written in the public mind in connection with a score of honorable institutions and enterprises of which we are proud.

We have, however, a direct word to all readers, to all patrons of industry and to all workers in our industrial arts. The Fair of the Institute gives opportunity to exhibit excellence. No better opportunity can be devised. The popular eye will be turned toward your labors. The popular mind will be in a frame to study, to compare, to patronize. You may catch a man's eye as he passes along the street, you may gain his ear by calling upon him at his place of business but at such times and places his mind is occupied and the impression you make is generally slight. At an industrial exhibition his disposition is different. He comes for the express purpose of hearing, seeing and judging for himself. The lesson is plain. Every manufacturer and tradesman is neglectful of his own interests if he fails to avail himself of the privileges of the Institute and place his best articles on exhibition.

To the inventor, the man who has made a new and valuable device or improved an old one, the opportunity of exhibition is invaluable. His success depends directly upon the extent to which he secures the popular eye. He might be almost as well out of existence as out of the thought of men. Let our inventors then come forward without exception and serve their own interests and at the same time display the inventive spirit of the coast so that all can see and admire it.

To the mechanic, the man who swings the hammer or holds the calipers, a mechanics' fair is of great importance. The mechanic's thought, like the scholar's, needs new material; it profits by suggestion and grows by the original adaptation of hints gained, from study and observation. Every mechanic should elaborate his best mechanical idea, whether it be in original work or in the excellence of workmanship on some frequent task, and place his masterpiece where all can see it. The demand of the day is for the most skillful workmen. Common laborers are abundant. Let it be seen that your work is not common. Do something above the ordinary run of work and put the result where all can see it at the Mechanics' Fair. It will do you good. It will show your ability, and depend upon it, there are many interested eyes seeking for the best skill and will bid high for it.

The coming Fair commends itself to the people of this State in every way. We have only pointed out, in an imperfect manner, a few directions in which its usefulness lies. As we have said before, it is an institution of the people. Its officers are but discharging a trust for the whole people. They deserve the fullest patronage and support. They should receive the earnest co-operation of every friend of industry on this coast. There are indications that they are receiving this, for the prospect for the coming exhibition is very bright. But there are some useful things, we doubt not, which are not yet entered for the display, and some enterprising citizens who have neglected to take the part which it will be for their own and the public interest that they should take. To such as these, if such there be, we would make a direct appeal to come forward and show their appreciation of the labors of the Institute, by contributing whatever excellent thing they have, to secure for this Centennial exhibition of this western shore a fullness and excellence which will be always memorable.

General News Items.

Two important South Wales collieries have stopped.

General T. W. Bennett, recently nominated by the President for Governor of Idaho Territory, declines the office.

Every man who has more than three pimples on his face at the present time is suspected of having the small pox.

Thirty deaths have already resulted from the explosion of the boiler of the *Thunderer*, and half of the wounded are not expected to recover.

The failure of McLagor & Smith, New Haven, iron founders, is announced. Liabilities, $1,000,000, of which $880,000 is secured.

The Postmaster-General has been informed by Commodore Vanderbilt and Colonel Scott, that the fast mail service will be discontinued on and after Saturday next.

Owing to the business depression, employers in England propose a reduction in wages or an increase in working hours of mill operatives and miners, who in some districts are preparing to resist. Great strikes are apprehended.

The act amendatory of the Bankrupt act has passed both Houses and gone to the President. As enacted, its effect is simply to allow bankrupts to apply for discharge from their debts at any time prior to the final decision of the case, instead of limiting them to one year; and to provide, also, that voluntary assignments under State laws shall not be a bar to the discharge of bankrupts, if made in good faith for the equal benefit of all creditors. These amendments apply to pending as well as future cases.

Value of Single Trees.—In a recent lecture, Prof. Beals of Michigan agricultural college, mentioned some trees which have been of great value. A walnut tree at Potterville sold for $1,000, the wood being highly ornamental in beautiful waves, and it was made into veneering. A black walnut at Brookfield, seven feet through, sold for $1,200 for the same purpose in New York. Two thousand dollars were refused for a very large blistered walnut, at Sangatuck. At Grand Rapids a black cherry tree with very dark wood was shipped to Central America, and from there shipped back to this country and sold as good mahogany.

The Dairy Show at Philadelphia.—We learn from the Utica *Herald* that at the recent display of cheese at the Centennial, there were 44 exhibitors from Wisconsin, 40 from Canada, two from New York, one from Ohio, and one from New Brunswick. Wisconsin bears the palm for enterprise in this connection. There will be another special exhibition of dairy products from October 17th to 21st.

Woodward's Gardens embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

Patents & Inventions.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

From Official Reports for the Mining and Scientific Press, Dewey & Co., Publishers and U. S. and Foreign Patent Agents.]

For Week Ending July 4th, 1876.

Barrel Taps and Faucets.—Elisha T. Barlow, S. F.

Lasting Machines.—William Bayhouse, Boise City, Idaho.

Strap Hinges.—Abraham C. Buffington, Cambria, Cal.

Brackets for Holding Lamps.—Henry Campbell, S. F.

Churns.—James Root, Woodland, Cal.

Cocks and Faucets.—Amos C. Springer, S. F.

Adjustable Watch Keys.—Henry Beguelin, assor. to S. Farjeon and Dinkelspiel, S. F.

Amalgamating Apparatus.—Thomas W. Irving, Port Madison, W. T.

Journal Boxes.—Geo. I. Schoenberg, S. F.

Gang Plows.—Reissue—F. A. Hill, San Leandro, Cal.

Designs.

Center Piece.—Samuel Killett, (two cases) S. F.

For Week Ending July 11th, 1876.

Lamp Extinguisher.—Lucien Houriet, San Jose, Cal.

Bee Hives.—Orson A. Davis, Sacramento, Cal.

Saw Clamps.—Joseph Shelly, Mariposa, Cal.

Dampers for Return Tubular Boilers.—Joseph Enright, San Jose, Cal.

Railway Tubes and Cars.—Andrew S. Hallidie, S. F.

Manufacturing Coffins.—William O. Day, S. F.

Soldering Clamps.—Ferdinand C. Smith and Charles E. Smith, Portland, Or.

Designs.

Center Piece.—Samuel Killett, (three cases) S. F.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

Note.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

Notices of Recent Patents.

Among the patents recently obtained through Dewey & Co.'s Scientific Press American and Foreign Patent Agency the following are worthy of mention:

Auger Handle.—Geo. L. Gibson, Reno, Nev. This invention relates to an improved handle for augers and boring bits, and provides a simple and effective arrangement, by which the handle is rendered capable of holding augers and bits of different sizes.

Step Ladder.—Edward A. Stockton, S. F. In constructing this improved step ladder, the inventor uses three round bars or rods to form each upright side bar or step support. These rods are passed through holes properly arranged in the ends of the steps and when the ends of all three bars are drawn together at top and bottom and secured by suitable strong fastenings so as to form them into a triple truss. A side support for the steps of step ladders has heretofore been made of two straight bars which passed through holes in the ends of the steps, but they did not form a truss, and a triple truss has been formed by partially splitting a board in three parts and spreading the parts in the form of a truss, but this support was secured against the ends of the steps and was liable to be wrenched off by frequent strains upon the ladder. The inventor also provides an improved and convenient hinged bar for retaining the ladder brace at the proper spread and also an improved system of bracing the ladder brace.

Grain Cooler.—J. H. DeForce, H. H. Hurd and George Simpson, Redwood City, San Mateo county, Cal. This is an improved flour cooling attachment for grist mills. The improvement consists in forcing one or more currents of fresh air into the flour bolts or bolt chest, in which the flour is bolted, thus not only cooling the flour, but serving also to prevent the interstices of the bolt cloth from becoming clogged. By cooling the flour in the bolt or chest it is prevented from sweating and packing in the bolt, and is caused to bolt with much greater freedom than when it is not. The flour is cooled by this process without additional machinery, except the blower and air pipe or tube, which become a stationary part of the mill.

Artificial Stone.—Leathers & Chappelet, Oakland. These gentlemen have received lately two patents. One of these for a novel combination of materials for producing an artificial stone of superior strength and durability. The other relates to a novel process and apparatus by which they are able to make artificial stone in imitation of mosaics without increasing the expenses of manufacture and with but little additional manipulation or handling, other than is required in the manufacture of the plain artificial stone.

Baling Press.—Jacob Price, San Leandro, Alameda county. In this patent are comprised certain improvements in that class of upright baling presses in which the follower moves from the bottom upwards, so as to compress the substance to be baled to the upper ends of the press. The first improvement relates to a novel manner of applying the toggle levers and an operating screw for raising the follower; also to improvements in the construction of the follower. The second relates to a very simple and effective locking device for fastening the side doors of the press in their closed position, so that they will sustain the inside pressure and yet be easily released when it is desired to open the doors to remove the bale. The third improvement comprises a fastening for retaining the hinged top of the press in its closed position.

Pavement.—John M. Snook, San Francisco. This is an improvement on that class of pavements, walks, etc., in which concrete, cement, etc., harden by exposure to the air so as to form an artificial stone surface. The object of the invention is to provide each a construction of the foundation, upon which the artificial stone is laid, that the material can be spread in a continuous body so as to present the appearance of being made in separate blocks or figures, and so that in case of contraction, upheaval or settling of the surface, any fractures will be in uniform straight or regular lines, thus preserving the appearance of the surface.

Windmill.—James and Wm. O. Swimmerton, Oakland. This invention is an improved windmill, consisting in mounting the windmill on a horizontal axis inside of a case or housing, which has openings in its sides suitably arranged to admit the wind to the wheel and in which the wind openings are regulated by slides, which can be adjusted to admit more or less wind as desired.

Current Changer for Telegraphic Purposes.—Stephen D. Field, S. F. Mr. Field's patent relates to a device for shifting the electric current from one telegraph line to another without disturbing the continuity of the current, thus enabling an operator to cut off his instrument from the lines without interfering with a passing message.

Fairs in 1876.

The Centennial (World's Fair), Philadelphia, Pa., from May 10th to continue till autumn.

Mechanics' Institute Industrial Fair, S. F., beginning August 8th.

California State Fair, Sacramento, from Sept. 18th to Sept. 23d.

The Southern District Agricultural Society, Los Angeles, from Oct. 5th to Oct. 14th.

Nevada State Fair, Reno, Nev., from Sept. 11th to Sept. 16th.

Sonoma and Marin District Fair, Petaluma, from Oct. 9th to Oct. 16th.

Oregon State Fair, Salem, from Oct. 9th to Oct. 16th.

Northern District Fair, Marysville, from Oct. 9th to Oct. 16th.

San Joaquin Valley Agricultural Fair at Stockton, beginning Sept. 26th.

Worthy of Notice.—The "Enterprise" *Perkins' Patent* Windmills (advertised in our columns), so long and well known on this coast, is now being supplied to this trade by Messrs. Horton & Kennedy, main office, Livermore, Alameda Co., Cal., where they receive supplies by carloads, and ship to all points at lowest rate of transportation. They will give prompt attention to all orders and enquiries. Mr. Horton is well known to the people here as a safe and reliable business man, and as Mr. Kennedy, late Secretary of the manufacturers, comes direct from the factory in Illinois to give this branch of the business especial attention, we have no doubt that all who favor them will be justly dealt with.

Reaper and Binder.—Cornelius Mohr, of Mt. Eden, is using Lock's self binder in his grain field. It cuts from 10 to 14 acres of grain per day, and binds all the bundles with wire, as fast as cut, and deposits them along side of the reaper as it moves forward. It sweeps everything clean, and needs no rake to follow its course. Mr. Mohr is cutting 700 or 800 acres, and is highly pleased with the way it works. Frank Bros. & Co., of S. F., are agents for this machine.—*Washington Independent.*

Farmers, send to May Bros., Galesburg, Ill., for descriptive circular of their new improved, heavy, steel-vane Windmill, and of their "Combined Mill." Warranted first-class mills. Wholesale price of nine-foot wheel, $30 on cars. One month trial given. Any carpenter (with the printed directions) can put the mill up right in one day. Farmer agents wanted.

Thoughtlessness.—Persons sometimes return their paper, marked "stop this paper." Their name being pasted on the sheet they think that is all we need to be able to cross their names off. Now that is thoughtlessness. Your P. O. address is needed as much as your name. We have thousands of names arranged only according to locality. Our mailing clerk does not know where everybody lives.

Good Printing Ink.—We prefer Chas. Eneu Johnson's printing inks, having used them on this paper for the past four years. H. S. Crocker & Co., printers, stationers, blank book and paper dealers, are Johnson's S. F. agents.—Dewey & Co., Publishers.

At our request, Cragin & Co., of Philadelphia, Pa., have promised to send any of our readers gratis, (on receipt of 15 cents to pay postage,) a sample of Dobbins' Electric Soap, to try. Send at once.

A Southern Home for Sale.—See advertisement of Lee H. Utt, whose fine place in San Diego county is for sale.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

San Francisco, Wednesday, July 19th, 1876.

During the week there have been several clearances of Wheat ships for Europe. So far six have gone. There is about half a dozen ships at Oakland and as many more at Vallejo, and Wheat is going in most of them at a rapid rate. There is also probably five or six loading on this sids. Out of these perhaps a dozen will get off by the end of the month, which would make 18 for July, against an average of about ten for the same month the previous year.

In prices for Wheat there is no change. The d ffer. ence of views on price continues, and farmers are holding firmly against selling at what is now offered. The price demanded is generally $1.65 per ctl.

During the week there has been a decline in the cable prices as appears below.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	Cal. Average.	Club.
Thursday	9s 8d@10s —	10s —@10s 4d
Friday	9s 6d@ 9s 9d	9s 8d@10s 2d
Saturday	9s 6d@ 9s 9d	9s 8d@10s 2d
Monday	9s 6d@ 9s 9d	9s 8d@10s 2d
Tuesday	9s 8d@ 9s 6d	9s 6d@10s —
Wednesday	9s 3d@ 9s 6d	9s 6d@10s —

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	11s 8d@11s 10d	12s —@12s 5d
1875	10s 2d@10s 6d	10s 10d@11s —
1875	9s 3d@ 9s 6d	9s 6d@ 9s 10d

The Foreign Review.

The telegraphed report from the *Mark Lane Express*, date of July 17th, is as follows: Wheat promises fairly, both for quality and quantity. The plant is strong and healthy. The probable yield will be over 12,000,000 quarters. Barley continues to look well. The condition of all other cereals is satisfactory. Our market has been unaffected by the war in Turkey. Trade has been much depressed, owing to the enormous supplies arriving. Nearly 175,000 quarters of foreign Wheat have arrived during the past fortnight. Prices have given way two thillings per quarter, and unless the weather or political influences check the decline, it appears unlikely that wheat can maintain its present depressed values. There is a large trade in India this year, and the favor which this class of grain has found with millers has caused the consumption of Russian and American Wheat to fall off much more than might be imagined. It is not unlikely that the range of prices will be lower than we have been accustomed to. The number of cargoes of Wheat off the Coast is 58. But few sales have transpired. The position of the market is somewhat indefinite. Buyers are holding off, and holders are not reconciled to low prices. A decline of fully two shillings per quarter on floating cargoes has, however, taken place during the week. Maize has met with a limited inquiry. Quotations are unaltered. Barley has been steady.

Freights and Charters.

The freight market for Wheat to Europe has been exceedingly inactive during the week. Rates are quoted now at £2.9s and £3. Vessels continue to arrive freely, but they are mostly chartered to arrive. The situation of the charterers of Wheat ships is reported to be quite complex, and the holders of the charters are said to be in danger of demurrage because they cannot obtain the Wheat to load their vessels. Taking this view of the matter, an interior writer of the *Post* says: "The situation, as I understand it, is briefly stated about as follows: Sixty days ago ships here and to arrive were going begging at £2 10@2 15 to Liverpool. At these rates parties desiring to secure a cargo of Wheat for shipment to that port could have paid the farmer $1 65@1.67½ per ctl., at which price a great many would have been satisfied to sell, as at these figures they can generally make a fair profit on their crops. But this opportunity was denied to them by the ring. For the moment they had succeeded in chartering all the ships in sight, rates of freight were advanced to £3 7s 6d and to £3 10s—rates that mean $1.45@1.50 to the farmer for his Wheat; for at the above freight, orders from Liverpool on the present market cannot be filled except the Wheat can be bought and placed on hoard at a cost not to exceed $1.50 per ctl. This ($1.50) is about the cost of production; so if the farmer is forced to sell at that figure by reason of a monopoly of ships, he has his entire year's labor for nothing. But for once, the ring have not got it all their own way, for naturally enough ranchers are not anxious to shlp their Wheat to market to be sold at these rulnous rates, and as a consequence the arrivals are so light—what little there is coming forward going in most cases to store—that vessels now loading will find lt very difficult to complete cargo before their lay days expire. Indeed it is generally conceded that a great many of the July fleet will be on demurrage, and as there is a heavy fleet chartered to load in August I am satisfied that if ranchers will quietly hold back their crops for three or four weeks longer that the ring will be glad enough to pay them $1.55 per ctl. and call it even." We give this opinion for what lt is worth.

The Crops in Iowa and Canada.

A dispatch from Council Bluffs, Iowa, dated July 15th, says: Extensive inquiries concerning the crop prospects in Western Iowa warrant the assertion that, on tho whole, they were never more promising. Wheat as compared with previous years, will afford a fair average yield. The straw is short, hut the heads are large and well filled. Oats is slightly affected by rust, but not enough to damage the crop. Barley, unless injured by the pressnt wet weather, will he extra good; and the same may be said of Rye. The yield of corn will be far in excess of that of any previous year.

The Toronto (Canada) *Globe* of July 5th publishes accounts from over 500 points in the Dominion in regard to the prospects for cereals the pressnt season. It says that the crop of Wheat will bs considerably below the average; the acreage of Barley is less than in former years, but its condition is excellent.

Domestic Produce.

The following table shows the S. F. receipts of Domestlo Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week June 28	Week July 5.	Week July 12	Week July 19.
Flour, quarter sacks	12,644	16,649	71,776	26,202
Wheat, centals	120,494	123,231	110,567	243,447
Barley, centals	21,986	14,741	22,743	32,267
Beans, sacks	391	670	2,136	1,150
Corn, centals	3,169	398	1,040	3 406
Oats, centals	1,317	762	5,740	2,706
Potatoes, sacks	11,972	6,458	11,429	17,357
Onions, sacks	1,051	603	846	770
Wool, bales	1,776	974	2,919	2,312
Hops, bales	33	45	117	93
Hay, bales	4,236	762	1,779	2,545

Bags—Bags are off again. The *Granada* brought the equivalent of 1,600,000 Dundee Grain Sacks. The market is a shade easier in consequence, though a large portion of the ahove was sold to arrive. We are informed that the top price is 13c for standard hand sewed. Some of our local bag manufacturers offer to sell at that figure. The attempted holstering of the market hy the alleged ring continues, hut with no effect. The holding of the grain knocks the gains out of the Bag speculators, and they are apparently defeated in their own devices.

Barley—Barley is still selling at improved figures, with a slight advance during the week. We note sales of 600 sks old Brewing at $1.25; 1,000 sks old Brewing, $1.20, silver; 1,000 do good New, 95c, half silver; 400 do Coast, 90c, half silver; 1,200 do do, $1 per ctl, all silver; 1,500 ctls choice old Bay Brewing at $1.25; 2,000 sks do do, $1.30 per ctl, all half silver; 200 ctls new Salinas, suitable for hrewing, at $1 per ctl, gold; 400 sks Bay Feed at 97½c, half silver; 89 sks old Feed at $1.10, silver. During the week two vessels have been chartered to carry Barley to Peru. Barley seems to be hound on new ventures this season. The export movement will help the crop exceedingly.

Beans—Dry Beans are still nomiual and in small receipt. We note a sale of 100 sks large White at $1.67½c per ctl, silver.

Corn—Corn is unchanged in price. We note sales: 250 sks large White at $1.17½ per ctl, half silver; 250 do at $1.20 per ctl; 525 sks choice Yellow at $1.15, gold; 110 do at $1.15, half silver, 2,243 do White and Yellow at $1.17½, half silver; 195 do Yellow at $1.20, silver; 237 sks large Yellow, from store, at $1.20 per ctl, half silver.

Dairy Produce—Butter is still firm and in good demand. Cheese is tending rather toward the higher prices. Quotations are generally the same as last week. The receipts of California Butter in this city during the past six months aggregate 5,358,500 lbs, an increase of 719,600 lbs as compared with the same period in 1875. The receipts of Cheese were 3,571,900 lbs, and show a gain of 260,200 lbs over those of 1875.

Eggs—Eggs are stiff at 37½@40c.

Feed—Hay is unchanged in price. We note sales: 4 cargoes Stock Wheat and Oat, $10@13; 28 tons poor Stock at $8; 25 do Tame Oat and Wheat, $10; 28 do Oat, Barley and Wheat, $11; 42 do fair Wild Oat, $11.50; 22 do good Wheat, $13; 30 tons new Wheat at $13; 40 do choice Old at $14; 25 tons good Mixed at $11 per ton.

Fruit—Sweetwater Grapes are at hand of great difference in quality. The price is 3@10c. The canners are now paying $5 for Blackberries.

Fish—Fish are in larger supply and cheaper.

Hops—We hear of no change in local prices. Emmet Wells reports the New York market for the week ending July 7th, as follows:

"Our market has been quiet since our last issne. Brewers are buying only to meet their requirements. Exporters are out of the market. The 450 exports noticed in this week's issue are the balance of the 650 bales shipped last week, of which only 200 were noticed. The reports from England and Germany are somewhat better than they were a week ago. The complaints still exist throughout some sections of this State of the premature arming out of the vines. Our correspondence for the morning speak favorable of the crop, especially in Washington Territory."

Oats—Oats are unchanged. We note sales: sks 350 at $1.55, half silver; 75 do, at $1.50

Onions—Stocktons are selling at 75@80c per ctl; otherwise the market is without change.

Potatoes—Sales from wharf Tuesday were made from 60@85c per ctl for Red; Early Rose, 50@80c; Southern Early, 40@50c.

Provisions—Fresh Beef and Mutton are firm with supply ahundant. The price is said to he maintained by a combination of the wholesale butchers. Pork is high, with a light supply arriving. The demand for packing is strong, and Hogs are selling at 7@7¼c cash in silver. The market for Cured Meats, Lard, etc., is active, and the demand is large with prospect of continuance.

Poultry—Poultry is generally weak and cheaper. Prices are given in our tables.

Rye—Sales of 160 sks good Rye at $1.85 per ctl.

Vegetables—Vegetables do not show great change from last week. Tomatoes are considerably reduced. Cabbage is cheaper with very little demand for it.

Wheat—The trade in Wheat has been very small. The indisposition to sell at the prices now offered is very apparent. The best price quotablo for new Shipping is $1.52½ per ctl; old, $1.55 per ctl. We note sales during the week as follows: 250 tons Shipping, $1.52½; 2,000 ctls Shipping, to arrivo, $1.52½; 1,000 do do, $1 50@1.52½; 200 ctls choice Shipping, $1.52½; 200 do Superfine, $1.50, half silver; 1,000 sks Shipping, $1.50; 600 do new Milling, $1 52½; 1,400 sks choice old Milling, $1.67½; 360 do fair do, $1.60; 800 do choice new, $1.55; 425 sks Superfine, $1.40 per ctl.

Wool—In our market Northern Wool is now quotable at 20c for an extreme price. We note sales of 300,000 lbs various at 16@18c; 10,000 lbs defective 11¼; 8,000 lbs Northern at 19c. Oregon Wool is quotable at 14@18c. In the Eastern markets there has been a marked activity chiefly in California Wool. The telegraphed reports are as follows:

New York, July 15th.—The Wool market exhibits decided improvement. During the week a large number of manufacturers visited the city, and have shown by their actions that they are satisfied that the decline of prices has been checked, and are therefore more inclined to meet the views of sellers. This is the general feeling in the market to-day, and already a slight improvement in prices is noticed. This is the case more particularly with the better grades of Spriug California, and it is said that lots that could be purchased a week ago for 21½c are now held firmly at 22½c. Western Texas continued exceedingly dull, owing to what are considered the high views of holders. Eastern Texas sells fairly at steady prices. In foreign descriptions there is no movement, owing to the low prices. Domestic carpet stock is dull and weak. Sales are 480,000 lbs Spring California at 15@18c; inferior, 19@23c; 39 bales Fall do, 10½@12½c; 76,000 lbs Oregon, 20½@23c; 15,000 do Colorado, 18@20c; 43,000 lbs Eastern Texas, 19@21¼c; 42,000 lbs Western do, 14½@16c; 3,000 lbs low domestic Noils, 20c; 1,500 lbs fine do, 60c; 32 bales super] Pulled, 28@31c; 205 bales Pennsylvania fleece, 30c; and 270 bales Donskoi, 200 hags super Pulled, 280 do, lambs, 150 do, black do, 14 do, 30,000 lbs X and XX Ohio fleece, 2,500 lbs tuh washed, and 15,000 lbs Western, on private terms.

Boston, July 15.—Transactions in Wool have been the largest for a long time, comprising upward of 3,000,000 lbs, of which 1,917,800 lbs were California and the remainder is principally unwashed and washed fleeces. New Wool comes forward slowly from the West. The receipts show a large falling off compared with the two previous years. The large transactions have not imparted any increased firmness to the market, prices remaining the same as last week. Sales of fleeces have been quite large, comprising 897,700 lbs, including washed and unwashed and unmerchantable, most of this now Wool. Choice XX Ohio and Pennsylvania sold at 35@37½c, and X at 34@35c; Michigan and Wisconsin sold at 30@32c; mostly at 30@31c, for X and medium, and these are now the current rates. Combing is rather unsettled; the sales havo been 122,000 lbs, and include 13,000 at 42@43c, good combing, but mostly combing and delaine, at 40c. Combing quotes at 40@43c; fino delaine, 36@37c; unwashed combing, 38@35c. There is still a good assortment of California to select from; some choice lots sold at 26@27½c; but the principal transactions have been in the range of 18@25c. The sales include 1,800,200 lbs Spring at 13½@27½c, and 127,600 lbs Fall California at 12@13c. Pulled Wool is quiet; sales comprise 148,000 lbs principally super and X, at 30@40c. An occasional lot of very choice super sells at an advance on the latter rates, but choice Eastern and fine super are hard to sell at 40c.

DOMESTIC PRODUCE.

[WHOLESALE.]

Wednesday M., July 19, 1876.

BEANS.

Bayo, ₱ ctl	4 50	@	5 00
Butter	1 90	@	2 25
Pea	1 92½	@	—
Pink	2 50	@	3 00
Sm'l white	1 60	@	1 80
Lima	1 80	@	2 00

BROOM CORN.

Common, ₱ lb	2	@	3
Choice, do	4	@	5

COTTON.

Cotton, ₱ lb	15	@	18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	25	@	30
Point Reyes	30	@	32½
Firkin	22	@	26
Wet'n Reserve	16	@	20
New York	—	@	—

CHEESE.

Cheese, Cal., lb	10	@	15
do Old	—	@	—
Eastern	—	@	—

EGGS.

Cal. fresh ₱ doz	37½	@	40
Ducks'	—	@	35
Oregon	22½	@	25
Eastern	21	@	—

FEED.

Bran, per ton	—	@	18 50
Corn Meal	27 50	@	28 00
Hay	7 00	@	13 00
Middlings	24 00	@	—
Oil cake meal	—	@	37 50
Straw, ₱ bale	55	@	60

FLOUR.

Extra ₱ bbl	5 50	@	6 00
Superfine	4 50	@	4 75
Graham, ₱ bbl	5 50	@	—

FRESH MEAT.

Beef 1st quality lb	6	@	8
Seoond do	5	@	5½
Third do	4	@	4½
Spring Lamb	5½	@	6
Mutton	2½	@	3
Pork, undressed	7	@	7½
do, dressed	—	@	10¼
Veal	6	@	6½
Milk Calves	5½	@	7

GRAIN, ETC.

Barley, feed ctl	95	@	1 00
do brewing	1 20	@	1 25
Chevalier	1 25	@	1 35
Corn, White	1 15	@	1 20
do Yellow	1 15	@	1 17½
Oats	1 25	@	1 80
Milling	—	@	1 90
Rye	1 80	@	1 85
Wheat shipping	1 50	@	1 52½
do milling	1 60	@	1 65

HIDES.

Hides, dry	10	@	13
do wet salted	6	@	6½

HONEY, ETC.

Beeswax, per lb	25	@	30
Honey in comb	12½	@	15
do Strained	6	@	8

HOPS.

New crop	10	@	13

NUTS—Jobbing.

Alm'ds h'd sh'l lb	8	@	10
do, soft sh'l	18	@	20
Brazil do	14	@	16
Cal. Walnuts	12	@	14
Chile Walnuts	11	@	12½
Peanuts per lb	9	@	10
Filberts	15	@	16
Pecanuts	17	@	18

ONIONS.

Union City ctl	—	@	—
Stockton	75	@	80
New Red	50	@	75
Silver Skins	62½	@	75

POTATOES.

Petaluma, ₱ ctl	—	@	—
Salt Lake	—	@	—
Humboldt	—	@	—
Half Moon bay	75	@	90
Early Rose new	1 00	@	—
Sweet	5	@	6
New	1 12½	@	1 25

POULTRY & GAME.

Hens, per dz	7 00	@	8 00
Roosters	5 00	@	7 00
Broilers	3 00	@	4 00
Ducks, tame, dz	5 00	@	6 00
do Mallard	—	@	5 00
do Canvass	—	@	5 00
Geese, per pair	1 25	@	2 00
Wild Gray dz	3 00	@	4 00
White	1 50	@	2 00
Turkeys, Live, lb	15	@	18
do Dressed	20	@	—
Quail, per doz	—	@	—
Snipe, Eng., doz	—	@	—
Doves, per dozen	50	@	57
Rabbits	1 00	@	1 00
Hare, per doz	1 50	@	2 00

PROVISIONS.

Cal. Bacon, L'h, lb	16	@	17
do Medium	15½	@	16
do Heavy	—	@	15½
Lard	14	@	16½
Cal. Smoked Beef	10	@	12½
Eastern do	—	@	10
East'n Shonld's	—	@	10
Hams, Cal	14	@	14½
do Armour	14½	@	15
do Worster's	17	@	17½
do Dupee's	16	@	16½
do Davis Bros'	17	@	17½

SEEDS.

Alfalfa, Chile lb	8	@	10
do California	11	@	12
Canary	10	@	12
Clover Red	—	@	22
do White	50	@	55
Cotton	6	@	10
Flaxseed	—	@	3¼
Hemp	12½	@	—
Italian Rye Grass	25	@	30
Perennial do	20	@	30
Millet	10	@	12
Mustard, white	3	@	3½
do, Brown	3	@	3½
Rape	7	@	9
Ky. Blue Grass	30	@	—
do 2d quality	29	@	—
Sweet V Grass	—	@	75
Orchard do	30	@	35
Red Top do	—	@	25
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	20	@	25
Timothy	11	@	13

TALLOW.

Crude, ₱ lb	6½	@	—
Refined	8½	@	9

WOOL, ETC.

SPRING—			
Seedy, ₱ lb	9	@	12½
Choice long free	17	@	18
do Northern	19	@	20
do short	13	@	16½
Burry	10	@	14
Oregon	14	@	18

FRUITS AND VEGETABLES.

[WHOLESALE.]

Wednesday M., July 19, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M	—	@	—
Tahiti, do	20 00	@	25 00
Cal. do	—	@	—
Limes, Mexican, ₱ M	16 00	@	18 00
Malaga Lemons, ₱ box	—	@	—
Cal. ₱ 100	2 00	@	2 50
do Sicily ₱ b'x	12 00	@	—
Bananas, ₱ bnch	2 50	@	3 50
Cocoanuts, ₱ 100	7 00	@	8 00
Pineapples, ₱ dz	—	@	—
Apples, ₱ box	40	@	1 00
do Choice	—	@	—
Apricots, lb	4	@	5
Blackberries	5	@	6
Cherries, ₱ lb	6	@	12½
Plums, lb	2	@	5
Figs	8	@	10
Gooseberries	5	@	—
Huckleberries	—	@	—
Strawber's ₱ case	5 00	@	5 00
Pomgranates	—	@	—
Raspberries	12½	@	20
Currants, ₱ case	2 00	@	3 00
Cranberries ₱ bbl	13 00	@	14 00
Peaches, ₱ box	25	@	60
Pears, ₱ box	75	@	1 00
do Choice	—	@	—
Crab apples, ₱ lb	3	@	—
Grapes ₱ lb	3	@	10

DRIED FRUIT.

Apples, ₱ lb	9	@	12½
Pears, ₱ lb	8	@	13
Peaches, ₱ lb	12	@	12½
Apricots, ₱ lb	14	@	15
Plums, ₱ lb	5	@	6
Pitted, no ₱ lb	17	@	22
Raisins, imported	3 25	@	3 75
Cal. Raisins	5	@	10
Black Figs, ₱ lb	5	@	10
White, do	12½	@	15
Prunes	12½	@	17
Citron	28	@	30
Zante Currants	9	@	10

VEGETABLES.

Asparagus ₱ box	2 50	@	3 00
Beets ₱ ctl	—	@	75
Cabbage, ₱ 100 lbs	50	@	62½
Carrots, ₱ 100 lbs	75	@	—
Cauliflower, doz	50	@	75
Celery, doz	5	@	—
Garlic, ₱ lb	3	@	3½
Green Peas ₱ lb	—	@	3
Green Corn ₱ doz	7	@	20
Sum'rSquash ₱ box	—	@	—
Marro'fat Squash, tn	—	@	—
Artichokes, ₱ doz	—	@	—
String Beans, ₱ lb	3	@	3½
Lima Beans	—	@	15
Parsnips	—	@	—
Shell Beans	3	@	3½
Peppers, green, lb	—	@	25
Okra	—	@	—
Cucumbers, ₱ box	50	@	75
Tomatoes, box	75	@	1 50
Egg Plant, box	1 00	@	1 50
Rhubarb lb	1	@	1½
Lettuce, doz	12½	@	—
Turnips, pr ctl	50	@	62½
Watermelons doz	1 75	@	3 00
Canteloupes do	1 00	@	2 50

GENERAL MERCHANDISE.

WHOLESALE.]

Wednesday M., July 19, 1876.

BAGS.

Eng. Stand Wht	13	@	—
Neville & Co's			
Hand Sewed	13	@	—
24x36	—	@	—
24x40	—	@	—
Machine do 24x40	—	@	15½
" " 23x40	14½	@	—
" " 22x40	14	@	—
" " 22x36	12½	@	13
Flour Sacks ½s	9	@	11
" " ¼s	6	@	7
" " ½s	4½	@	5
Hessian 60-in	12¼	@	14½
do 45-in	10	@	10¼
do 40-in	8½	@	9
Wool Sacks, 3¼ lbs	45	@	50
do 4 "	50	@	52½
Stand. Gunnies	12½	@	13½
single seam do	—	@	—
Bean Bags	7	@	8

CANNED GOODS.

Asst'd Pie Fruits in 2½ lb cans	2 75	@	3 00
do Table do	3 75	@	4 25
Jams & Jellies	4 25	@	—
Pickles ½ gl	—	@	3 50
Sardines, qr box	1 65	@	1 90
do hf boxes	3 00	@	—

COAL—Jobbing.

Australian, ₱ ton	8 75	@	9 00
Coos Bay	—	@	9 00
Bellingham Bay	—	@	9 00
Seattle	—	@	9 00
Cumberl'd	14 00	@	16 00
Mt. Diablo	5 75	@	7 75
Lehigh	—	@	22 00
Liverpool	10 00	@	11 00
West Hartley	—	@	14 00
Scotch	9 00	@	10 00
Scranton	13 00	@	16 00
Vancouver's Isl.	10 50	@	12 00
Charcoal, ₱ sk	75	@	—
Coke, ₱ bbl	—	@	60

COFFEE.

Sandwich Island	—	@	21½
Costa Rica per lb	22½	@	—
Guatemala	—	@	22½
Java	—	@	30
Manilla	—	@	21½
Grounnd in cs	25	@	—
Chicory	27	@	—

FISH.

Sac. Dry Cod, new	—	@	6½
cases	6	@	7½
do honeless	8½	@	10
Eastern Cod	8	@	8¼
Salmon in bbls	7 25	@	—
do ½ bbls	3 75	@	4 00
do 2lb cans	2 00	@	—
do 1lb cans	1 35	@	—
do Col. R. ½lb	5 00	@	5 50
Pick. Cod, bbls	2 00	@	—
do ½ bbls	1 00	@	1 25
Mack'l, No. 1, ½bls	11 00	@	—
" Extra	—	@	12 00
" in kits	1 90	@	2 25
" Ex mess	3 50	@	4 00
" Ex mess, ½bs	—	@	12 00
Pic'd Herr'g, hx	3 00	@	3 50
Bos. Sm'k'd Her'g	40	@	50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl	2 00	@	2 25
Cement, Rosendale, do	2 75	@	3 50
do Portland do	4 75	@	5 50
Plaster, Golden Gate Mills	3 00	@	3 25
Land Plaster, ₱ ton	10 00	@	12 50

MISCELLANEOUS.

Pulu	—	@	7½

NAILS.

Assorted size, keg	3 75	@	4 00

OILS.

Pacific Glne Co			
Neat F't No. 1	1 00	@	90
Pure	—	@	—
Castor Oil, No. 1	—	@	1 15
Baker's A A	—	@	1 15
Cocoanut	52	@	55
Olive Plagniol	5 50	@	5 75
do Possel	4 75	@	5 00
Palm lb	9	@	—
Linseed, raw	—	@	65
do boiled	—	@	70
China nut in cs	65	@	—
Sperm, crude	1 60	@	1 65
do bleached	1 90	@	2 25
Coast Whales	47½	@	50
Polar, refined	—	@	50
Lard	—	@	1 20
Oleophine	—	@	28
Devoe's Bril't	25	@	27
Long Island	—	@	25
Eureka	26	@	27
Devoe's Petro'm	25	@	27½
Barrel Kerosene	23	@	25
Olive	—	@	3 50
Downer Kerose'e	—	@	37½
Elaine	37½	@	—
Gas Light Oil	23	@	25

PAINTS.

Pure White Lead	9¾	@	10¼
Whiting	—	@	1¾
Putty	4	@	5
Obalk	—	@	1½
Paris White	—	@	2½
Ochre	—	@	3½
Venetian Red	—	@	3½
Red Lead	10	@	11
Litharge	10	@	11
Eng. Vermillion	—	@	1 25
Averill Chemical Paint, per gal.			
White & tints	2 00	@	2 40
Green, Blue & Ch Yellow	3 00	@	3 50
Light Red	3 00	@	3 50
Metallic Roof	1 30	@	1 60

RICE.

China No. 1	5½	@	6
Hawaiian, ₱ lb	7½	@	7¾
Carolina, ₱ lb	10	@	—

SALT.

Cal. Bay, per ton	10 00	@	14 00
do Common	5 00	@	7 00
Carmen Island	12 00	@	15 00
Liverpool fine	22 50	@	25 00

SOAP.

Castile ₱ lb	10	@	11¼
Common brands	4½	@	6
Fancy do	7	@	9

CANDLES.

Grant's	16½	@	17
Mitchell's	20	@	22

SPICES.

Cloves ₱ lb	45	@	47½
Cassia	23½	@	26½
Citron	28	@	30
Nutmeg	95	@	97½
Whole Pepper	14½	@	14¾
Pimento	16	@	17½
Gr'nd Allsp'ce	—	@	12
do Cassia do	—	@	50
do Cloves do	—	@	50
do Mustard do	—	@	20
do Ginger do	—	@	00
do Pepper do	—	@	00
do Mace do	—	@	2 00
Bowen's Pure Ground ₱ lb	—	@	50

SUGAR, ETC.

Cal. Cube per lb	—	@	12¾
Circle A crusned	—	@	12
Powdered	—	@	12¼
Fine crushed	—	@	12
Granulated	—	@	11½
Golden C	—	@	10½
Hawaiian	10	@	11
Cal. Syrup in kgs	—	@	62½
Hawaiian Molasses	25	@	27½

TEA.

Oolong, Canton, ₱ lb	19	@	25
do Amoy	28	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	40
do Pingsuey	45	@	80
do Moyune	50	@	1 00
Gnnpo'der, Cant.	75	@	1 00
do Pingsuey	50	@	90
do Moyune	65	@	1 25
Y'ng Hy., Canton	28	@	40
do Pingauey	40	@	70
do Moyune	65	@	80
Japan, ½ chests, bulk	30	@	75
Japan, lacquered hxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb bxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ & 1 lb paper	30	@	55

TURPENTINE.

Eastern	51½	@	55

S. F. RETAIL MARKET RATES.

Wednesday M., July 19, 1876.

POULTRY, GAME.

Chickens	50	@	1 25
Eggs, Hene	35	@	40
do Ducks'	—	@	35
Turkeys, ₱ lb	31	@	—
Ducks, each	1 00	@	—
Geese, wild, pair	—	@	—
Tame, ₱ pair	2 50	@	3 00
Snipe, ₱ doz	—	@	—
do English	3 00	@	—
Quail, per dozen	—	@	—
Prairie Ch'k s, pr	—	@	—
Hares, each	25	@	35
Rabbits, pair	37	@	—
Squirrels each	10	@	—
Hams, Cal. ₱ lb	16	@	20

FISH, MEATS, ETC.

Flounder, ₱ lb	35	@	—
Salmon, ₱ lb	—	@	25
Smoked	—	@	10
Cod Fish, lb	25	@	—
Lake Big. Trout	—	@	—
Beef, tend, ₱ lb	20	@	25
Corned, ₱ lb	8	@	10
Smoked, ₱ lb	12	@	15
Porter House St'k	20	@	25
Sirloin do	15	@	18
Round do	10	@	12
Pork, rib, etc., lb	12½	@	15
Chops, do, ₱ lb	15	@	20
Veal, ₱ lb	12½	@	15
Cutlet, do	15	@	20
Mutton-chops, lb

Nurserymen.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castilio streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

ISLAND VIEW NURSERY,

B. B. Williams, - - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Araucarias, Pines, Cypress, etc.; Fine assortment of Camelias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.

B. B. WILLIAMS, Santa Barbara, Cal.

BLOOMINGTON NURSERY, F. K. PHŒNIX, Bloomington, Ill. Price lists free. 4 Catalogues, 25c.

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SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

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MELBOURNE, VICTORIA, AUSTRALIA,

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COHANSEY GLASS TOP

FRUIT JARS.

FRUIT IN CONTACT WITH GLASS ONLY.



Elastic Pressure by Spring Clamps on Shoulder Joint.

The Screw Clamp turns freely on Cover and Inclines, and tightens the Jar quickly and is Easily Tested.

Easily opened and closed, without wrench or tool.

Every Jar being inspected, there is no trouble in using.

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BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

Gloves Made to Order

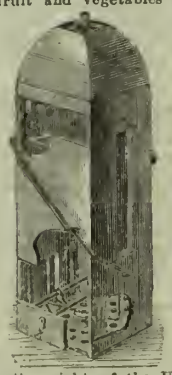
At prices most economical to customers, at the SACRAMENTO GLOVE FACTORY of I. W. Lusk, Tenth St., between J and K Sts., Sacramento. None but the best quality of California tanned skins used. Ladies' and Gents' colored, plain and lodian dressed riding and common gloves and mittens on hand, or made to order on short notice. ☞ Send your size or number and you can order by mail. Satisfaction guaranteed. Ladies, farmers, miners, engineers, and all requiring serviceable gloves are invited to call at the factory.

Agricultural Articles.

J. W. CASSIDY'S

FRUIT DRIER.

A New Invention, although Thoroughly Tested, which Combines all the Improvements.



We warrant a complete success in drying all sorts of fruit and vegetables as thoroughly and more expeditiously than any other Machine, for less amount of fuel by 35 per cent, as we utilize all the waste heat which is lost by all other Machines.

Its simplicity of construction and its cheapness will put it in the hands of all who may want a Drier. We don't pretend to ask from $1,200 to $1,500 profit and royalty. We are willing that producers should make the profit and keep it. The Machine has been tested to our entire satisfaction, and met our most sanguine expectations. The fruit dried by our Drier was fully as good as that dried by any of the renowned Driers. We would say to all who contemplate putting up Machines, that we can make it a decided inducement for all such to give us a call, as we want to sell the entire right of the United States, State, County or Local, at such prices that the poor as well as the rich can use them. The capacity of the Machine will be in proportion to the size, ranging from 100 to 500 feet drying surface. This dryer was more fully illustrated and described in the RURAL PRESS of May 20th, 1876. Communications to T. F. BACHELOR, 622 Clay St., S. F., or to J. W. CASSIDY, Petaluma, Cal., will be thankfully received and promptly attended to.

NEW

Agricultural Implement Depot

—AT—

Watkins & Scott's Alameda Foundry,

SAN JOSE, CAL.

Agent for Walter A. Wood's New Iron Mower, Reaper, and Self-Binder, Haines' Single-Gear Header, Improved Sweepstakes Thresher, and Sulky Rakes; also, the Celebrated Revolving Sulky Rake, and the Champion Revolving Rake, and the well known Tiffin Revolving Rake; La Belle Farm Wagons, and Spring Wagons of all descriptions.

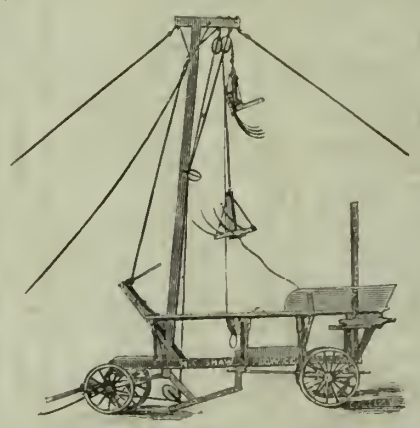
The attention of farmers is particularly called to the

New Revolving Sulky Rake.

It has met an enormous sale at the East and in and around Sacramento.

Also, all kinds of new and second-hand machinery for sale. Farmers and others will find it to be to their interest to call on me before buying, as I am selling everything very low for cash.

ORRIN TABER.



This cut represents a DERRICK AND FORK, for the purpose of supplying GRAIN IN THE STRAW TO A THRESHING MACHINE. The success of this machine is beyond question. It is a saving of EIGHT OR TEN DOLLARS PER DAY over the hand fork mode. We also make DERRICKS for the purpose of STACKING HAY OR GRAIN, which meet with great favor everywhere. Manufactured by MATTESON & WILLIAMSON, Stockton, Cal.

TABER'S

IMPROVED HAY FORK.

[Patent Applied For.]

Is the most perfect, and easiest operating derrick fork in existence. One man can operate it with the greatest ease, as the strain of lifting the fork causes it to grapple its load automatically, while a pull upon the releasing cord, when the fork has been lifted to the desired place, causes it to drop the load instantly.

There is nothing in the construction of this Fork that is liable to get out of order.

Farmers will do well to examine this Hay Fork, as it saves expense and greatly facilitates the handling of hay, grain and straw. Communications addressed to

J. T. HOYT, Gen. Agent,

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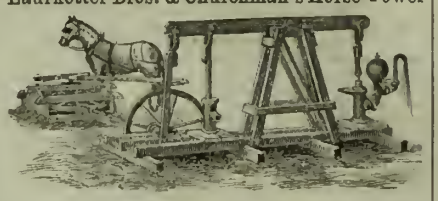
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VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you most have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power



[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

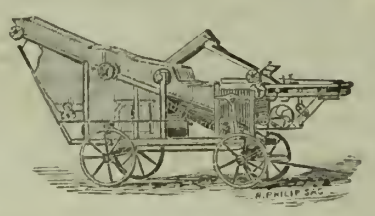
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PATENT FEEDER & ELEVATOR



For Threshing Machines.

The most successful Automatic Feeder yet Invented; it has had the severest tests in all kinds of grain, long, short, wet or weedy, during the past six years. There are over two hundred in use in the Sacramento valley. I will give full guarantee to purchasers. Send for special circular. Address,

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Patentee & Manufacturer.

Woodland, Yolo County, California.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.

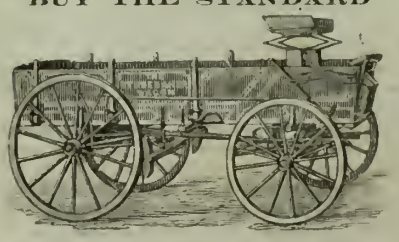


Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

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STUDEBAKER WAGONS.

We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

E. F. AMES, Gen. Agent,

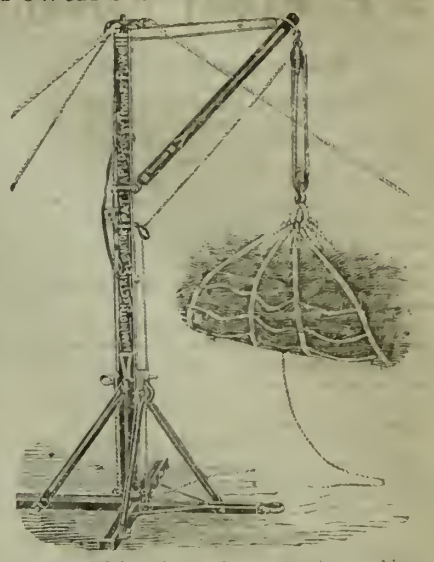
Send for Price-List. Sacramento, Cal.

OAKLAND Spring Balance Gang Plow.



Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal Established in 1858. Send for Circular and Price-list

Powell's Electric Elevator.



The great labor, time and money saving machine. This machine is used in the harvest field to elevate grain, hay and straw from the header box to the stack only a few seconds being required to elevate a large four horse load. The load is taken up in a center opening net or sling. Patented April 20th, 1875. For description, circular and price list, address

THOS. POWELL, Patentee, Stockton, Cal.

Or H. C. SHAW PLOW CO., Stockton, Cal.

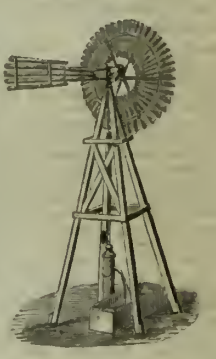
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(PERKIN'S PATENT)

Self-Regulating, Farm Pumping, Railroad and Power

WINDMILLS,

Pumps & Fixtures.



Have been in use in California for five years. Over 500 sold in the towns and farming districts of California. All Mills guaranteed. Send for circulars containing sectional and other illustrations, and further description, to

ISRAEL HORTON, Gen'l Ag't Pacific Coast,

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FAULKNER'S EXCELSIOR

Portable Family Fruit Drier,

$65.00 to $75.00.

The Best, Cheapest and Only Practical Portable Family Fruit Drier Made.

It will do as good work as any Drier. It can be used in connection with the cook stove or any small stove; may be run in the house or out of doors. Is very compact and plain in its construction and simple in its management. A child can attend to it.

With this Drier every family can save their surplus fruit, and put it in condition to bring the cash or trade at the store. We have the world for a market; last year's stock is exhausted. There will be a ready sale at good prices for all you can make.

Manufactured and for sale by E. T. STEEN, 31 Beale street, where they can be seen in operation. Also for sale by Messrs. STRONG & WILLIAMSON, 418 Clay street, San Francisco, and Messrs. W. R. STRONG & CO., 8 and 10 J street, Sacramento.

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JAS. W. FAULKNER, Patentee,

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Marster's Self Regulating FEEDER

For Threshing Machines,

Is the only Feeder manufactured that feeds without moving all the straw in a body, consequently gives a more regular feed than it is possible to obtain with a draper feeder; it feeds the whole length of the cylinder; it is easily changed to feed fast or slow as desired, saves the labor of two men and does not require an experienced tableman to feed it. The separator needs no alteration with the exception of the removal of feed board to secure it in position, and does not have to be taken off when moving. It requires but little power to run it, and has no complicated parts liable to get out of order. Its success having been fully demonstrated, I cordially invite all parties interested to call and judge of its merits. For full particulars address

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GRAPE BOXES, RAISIN BOXES, FIG DRUMS, ONE-POUND BLACKBERRY BOXES and PICKING BASKETS.

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LEA & PERRINS'
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November 1874.

*** *This does not apply to shipments made prior to the date given.*

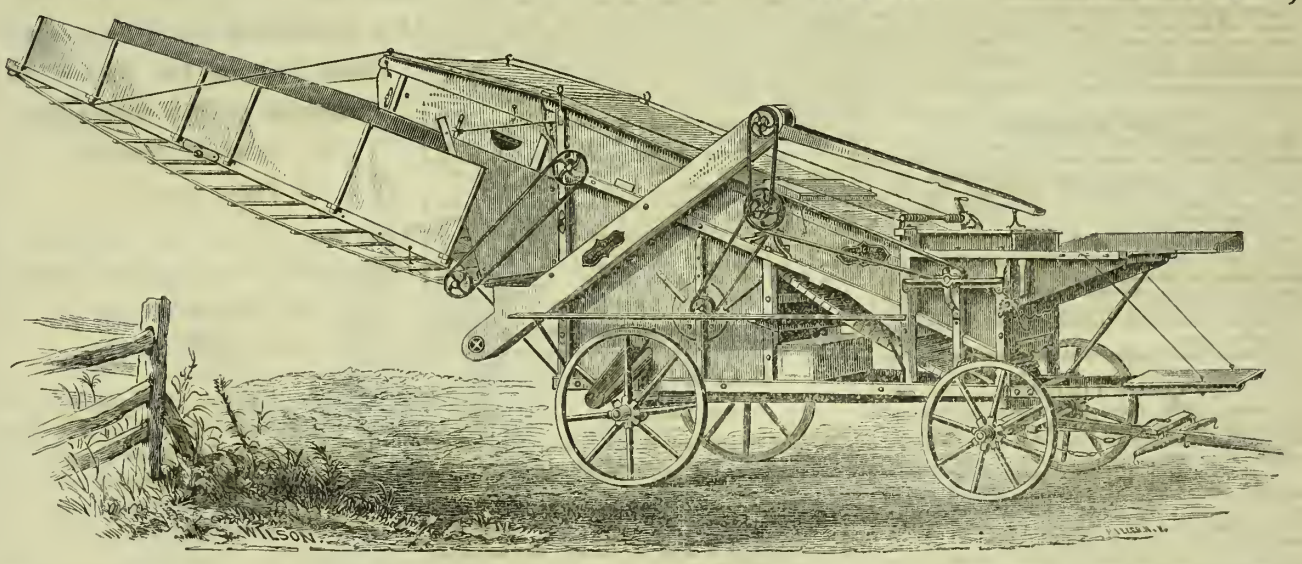
Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco.

50 **Visiting Cards,** with your name finely printed, sent for 25c. We have **100** styles. **Agents Wanted. 9** samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

SWEEPSTAKES THRESHER,



With all the Latest Improvements for the Pacific Coast, Manufactured for FRANK BROS. & CO.

We will warrant every Machine sold to do Better, Cleaner and Faster Work than any other Thresher on the Coast.

All who are in want of Threshers should not fail to call and see the improvements that have been put on the Sweepstakes for the Harvest of 1876. We also have the Cary Power, to which we would call special attention.

FRANK BROS. & CO.,

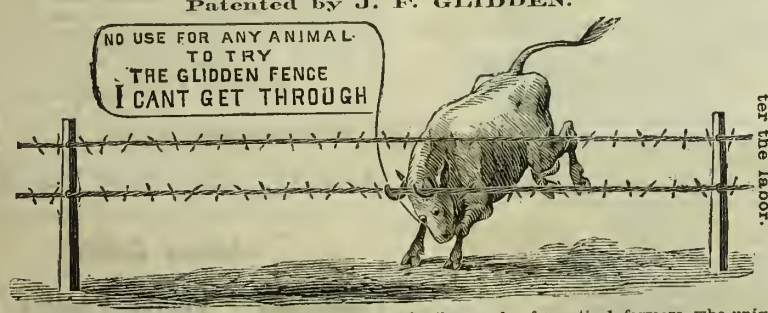
349 MARKET STREET., - - - - - - - - - SAN FRANCISCO.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



About one-half the cost of any other good fence, and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8. Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,
K and 10th Streets, Sacramento.

General Agents for the Coast.

GRANGERS' BUSINESS ASSOCIATION,

Incorporated Feb. 10th, 1875. Capital Stock, $1,000,000.

OFFICERS and DIRECTORS:

DANIEL INMAN, (PRESIDENT). AMOS ADAMS, (SECRETARY). THOS. FLINT.
R. C. HAILE, (VICE PRESIDENT). THOS. UPTON. G. P. KELLOGG.
JOHN LEWELLING, (TREASURER). I. C. STEELE. W. L. OVERHISER.
O. HUBBELL. D. CAMPBELL.

SHIPPING and COMMISSION HOUSE,

Grangers' Building, - - - - 106 Davis Street, S. F.

Consignments of Grain, Wool, Dairy Products, Fruit, Vegetables, and other Produce solicited, and advances made on the same. Orders for Grain and Wool Sacks, Produce, Merchandise, Farm Implements, Wagons, Etc., solicited and promptly attended to.

We do a strictly Commission Business, and place our rates of Commission upon a fair legitimate basis that will enable the country at large to transact business through us to their entire satisfaction.

Consignments to be marked Grangers' Business Association, San Francisco. Stencils for marking will be furnished free on application.

DANIEL INMAN, Manager.

JOHN H. GOVE'S

CENTENNIAL HAY PRESS.

Farmers and Hay Pressers will find it to their advantage to examine this Press before buying any other. It is built compact, combining lightness for moving with the greatest power and durability in its working parts, capable of making the average 250 pound bale, more or less, baling 10 to 15 tons per day, with three men and a pair of horses, they traveling only 36 feet to operate it. No excavations required for this Press. This is the original Gove Press improved, after an experience of building Presses in the States the past 15 years, where they gave the best of satisfaction. **Price, No. 1, $250.**

Manufactured and for sale, or built to order, at the EUREKA GRAIN STORAGE WAREHOUSE, by **JOHN H. GOVE** or **ANDREW J. GOVE,** Box 1122.

A Liberal Discount to the trade. For Sale by all Agricultural Dealers.

H. K. CUMMINGS. 1858. H. H. BALSTON 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer

E. B. MOTT, Jr.,

IMPORTER AND DEALER IN

STOVES, METALS AND TINWARE

And Sole Agent for the Rathbone Range.

53 and 55 J Street, Sacramento.

ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco

INTERNATIONAL HOTEL

ALL NEWLY FURNISHED,

824 & 826 Kearny St., - San Francisco, Cal.

$1.50 & $2 per day. Free Coach to the House.

H. C. PATRIDGE, - - Proprietor

MERCHANT MILL FOR SALE,

And 160 Acres Land. Turbine Wheel, 190 feet fall, 35 barrels per day. Good Home Market and Never Failing Water.

S. A. POLLARD,
San Luis Obispo.

Dewey & Co. {224 Sansome St} **Patent Agt's.**

THE PACIFIC RURAL PRESS
For 1876.

BETTER AND BETTER.

While we cannot promise to labor any more faithfully or earnestly for our readers in the future than we have in the past, we shall endeavor to make the PRESS MORE COMPLETE IN ALL ITS DEPARTMENTS.

Its Editorials,

Will be written by able and conscientious writers and with such judgment and care as to render the journal of the highest usefulness to its readers, and to the permanent welfare of the new and progressive community its columns especially represent.

New Editorial Talent

Has been engaged to work in co-operation with the senior editor of the RURAL and other assistants, in extending forward some of its important branches.

The Live Stock

Departments—including the horse, horned stock, sheep, goat, swine and poultry interests—will receive constant attention, and our researches for reliable information, which shall be of practical use to our Occidental readers, shall not be limited to any narrow sphere.

The Dairying Trade

Of this coast is yet in small dimension to what it might and should be—to what it is destined soon to be. Intelligent experience; careful experiments; the dissemination of demonstrated facts in regard to the best breeds of stock; information of the best grasses for pasturage for all seasons; the best machines and methods for manufacturing; hints for marketing, etc., will be some of the subjects to be treated in an earnest way in our columns, that the RURAL PRESS may well do its share in advancing one of the most promising industries of the coast.

Our Correspondents

Number some of the ablest domestic writers in the Union, and we are proud to say we would not exchange their co-operative pens for those of any other corps of newspaper correspondents. They are not only friends at heart of our paper, but of the true cause of progressive manhood and womanhood everywhere. Our sources of

Fresh Information

Are not equalled by those of any other agricultural journal in the United States, and making the best use possible of our facilities, we are determined that every issue of the RURAL PRESS for 1876 shall teem with a choice and well dressed variety of desirable information. The pursuit of

Floriculture and Horticulture

On the Pacific slope presents a field of delightful study more prolific in novelty and fruitful in profits than awaits the student and laborer in any other portion of the globe. We trust to exchange valuable hints with our florists, vinoyardists and fruit growers throughout the Pacific States.

Our HOME CIRCLE department will contain none other than

Chaste Literature

In pleasing variety, calculated to amuse, instruct and elevate both the young and old boys and girls, who may turn to its columns for pastime and self-improvement.

Our Illustrations

Will be numerous and calculated to please the eye and help the mind to see quickly and correctly many important objects that might otherwise pass their knowledge. Some of them will enable farmers to see and contrast for themselves many kinds of new and important machines and implements. This illustrated feature of our paper, although expensive to its publishers, is an important one to rural readers—especially in a new and rapidly developing country.

The Mind and Health

Of the readers of the RURAL will be cared for in our GOOD HEALTH, USEFUL INFORMATION and DOMESTIC ECONOMY columns. Our GENERAL NEWS ITEMS, NEW INVENTIONS, SCIENTIFIC and MECHANICAL MISCELLANY articles will be continued throughout the year.

Agricultural Notes.

Under this head will be reported weekly, carefully selected and condensed items concerning the agricultural improvements and progress of the various counties and districts of the wide field we represent. The

Information of the Resources

Of this coast, set forth in the various departments of our paper, is not only of important benefit to its readers, but to every property holder on the coast, through the influence it exerts in stimulating enterprise at home and healthy immigration from abroad. There are but few persons interested in agricultural pursuits here who are not benefited annually by our publication above the amount of its subscription price.

Market Reports.

In its commercial department, the RURAL PRESS will spare no effort to furnish the agriculturist an accurate and trustworthy schedule of the prices which various productions are gaining in the market. We regard this department of our paper as worthy of the most careful and discriminating labor. In our review of the markets we shall present all attainable information concerning the tendency of production of various supplies and the features of the trade in them. We shall afford all the evidence which can be secured for forming true judgment of the features of agricultural trade and commerce. Although this is a difficult department we shall especially strive to give the best weekly domestic produce reports in the city.

The Best is Cheapest.

We might fill our advertising columns with high-priced

Quack and Swindling Advertisements,

And our reading columns with paid puffs, and thereby be enabled to furnish a large paper at a remarkably low price, but *we will not do it.* We believe our subscribers prefer a good paper at a reasonable price to the so-called cheap papers that trifle with their confidence. Time is precious, and patrons will find that reading the cheapest which is most suitably prepared for their special avocation and locality.

The Friends of Our Paper

Have done much since its first issue, in January, 1870 to make the RURAL PRESS of the Pacific coast what it is to-day. Thanking them for past kindnesses, we invite all our readers to make known its merits to those who are not yet its reading or advertising patrons.

A Farmer's Paper Throughout.

We repeat that the PACIFIC RURAL PRESS will continue to be a faithful advocate of the best and highest interests of agriculturists on this coast—according full justice to other kindred industries in conjunction with which agriculture alone can permanently thrive.

A Handy Map

Of California and the principal portion of Nevada will be furnished free to all subscribers who pay one year in advance, during the year 1876. The map is plain, printed on tinted paper, about 16x20 inches, showing townships in California, and the counties, railroads and principal towns in California and Nevada.

We Prepay the Postage

On all papers sent to subscribers in the United States.

SUBSCRIPTION RATES, payable in advance: One year, $4. Sample copies free to those who will assist in obtaining subscribers.

DEWEY & CO., Publishers,
No. 224 Sansome street, S. F.—Jan. '76.

Lands and Homes for Sale.

Sales of Farming Lands.

Yuba County.

The ranch of Thomas Kimball, containing 3,000 acres and lying four miles north of the city, was sold yesterday at public sale on foreclosure of deed of trust made to Capital savings bank of Sacramento. It was bid in by the bank at $12,000, a loan having been made by the bank of $25,000 on the land. This sale will probably result in the division of the land and its sale in small parcels.—*Marysville Appeal.*

It is the intention of the RURAL PRESS to pay particular attention to the transactions in farm property. We shall report fully the sales of which we learn, in order that all readers may be informed of the course of value in lands. We intend also to give prominence to this important branch of farm economy, and make our paper a medium for farm real estate advertising.

A Desirable Bargain.

Mr. Lee H. Utt, of Pala, San Diego county, offers for sale a share in his valuable place, consisting of 320 acres, and situated as described above. There is an Apiary on the ranch in successful operation. For this business it possesses marked advantages. Twenty acres are seeded to alfalfa and eight acres are in vines. The place has growing on it 420 trees, many of them in bearing.

The owner will warrant the Cavendish Dwarf Banana to grow as well here as in Florida. He has three now growing. The pasture now enclosed will keep 50 head of cattle. The ditch—which is large enough to run a mill—is stocked with trout, and has a fish pond 100 feet square, and full of fish. There is a nice warm spring, with bath house; the water contains sulphur, salts and iron.

The place possesses great natural advantages, and the present owner has not spared money nor labor to improve; but being a valetudinarian he is not strong enough to attend to the work. To the right kind of a man a rare opportunity is here offered. To such a person as will come in good faith he extends the invitation to stop on the ranch long enough to become familiar with its characteristics and capacities.

Parties can refer to I. Nast, stock broker, San Francisco, or to anybody of note in San Diego. The place bears the name of "Aqua Tibia." Address,

LEE H. UTT,
Pala, San Diego County, Cal.

FOR SALE,

IN LOTS TO SUIT,

5,000 Acres of the Lake Vineyard Land and Water Association.

These lands are in the great fruit belt of Los Angeles County.—only six miles from the city—are peculiarly adapted to semi-tropical fruits, and adjoin the famous Lake Vineyard of Hon. B. D. Wilson. The Southern Pacific railroad runs through the land; convenient to schoolhouse and church; water in abundance, and the water-right is sold with the land. Title perfect. A Map of the tract may be seen at the office of Mayor Beaudry, on Spring street, opposite City Council rooms. References may be made to HON. B. D. WILSON or J. DE BARTH SHORB, at Lake Vineyard, who will take pleasure in showing the lands. Also, to MAYOR BEAUDRY or D. FREEMAN, Los Angeles city.

A RARE CHANCE

FOR SALE—My POULTRY BUSINESS, with my Farm of 115 acres; 22 acres of Vineyard and Orchard; House of 10 rooms; Barns; Granaries; 30 Chicken houses.

Receipts between $3,000 and $4,000 a Year,

Fully proved to the purchaser. Farm Implements, Wagon, Horses, Cows, etc., with Poultry (value over $3,000) included. Price, $12,000, one-half cash. Or I WILL SELL A HALF INTEREST and continue the business in partnership with the purchaser to reside on the place. Address,



M. EYRE, Napa, Cal.

In view of above I offer a few fine Fowls, Bronze Turkeys, etc. (not included in breeding pens and stock sold with farm), at reduced prices.



FOR SALE,



A large and well established NURSERY, with an extensive trade and an excellent business reputation. A large and well selected stock on hand that will nearly pay for the whole thing the coming season. It is the only first-class Nursery in the great Sacramento Valley.

For further particulars, apply to

W. R. STRONG & CO.,
, 8 and 10 J St., - - - - Sacramento,

—OR—

STRONG & WILLIAMSON,
418 and 420 Clay St., - - - San Francisco.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal.

Thanks for Prompt Attention.

STOCKTON, June 26, 1875.

Messrs. Dewey & Co., S. F.:—

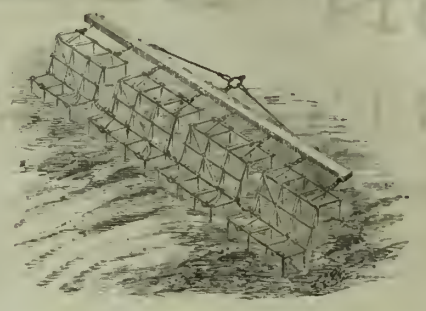
I have received the patent for my invention in wagon brakes, which you prosecuted for me; patented May 11, 1875—No. 163,046. Thanks to you for your prompt attention to the case; you will hereafter be my attorneys in such cases. I recommend all inventors on the Pacific coast to give you a call, which I think they will never have any cause to regret. Very truly yours,

GEO. G. BUCKLAND,
Stockton, Cal.

SUTTER CREEK, February 26th, 1875.

MESSRS. DEWEY & CO.—I have received my Letters Patent through your Agency, and, for your promptness, accept my thanks. Yours, S. N. KNIGHT.

IRON
Sectional Harrow.



This Harrow was Awarded the First Premium at the California State Fair in 1875.

The Undersigned, having Purchased the Patent Right of this Harrow for California, are now Manufacturing them in Roseville, Placer County,

And would call the attention of Farmers to the superior merits of this Harrow over all others now in use.

As its name indicates, it is made in Sections of about three feet in width, each Section having four Bars, in which the teeth are inserted, and by connecting the Sections with links, the Harrow is formed.

SHOULD A FARMER REQUIRE A HARROW UPON HIS FARM TO DO ALL KINDS OF WORK, HE SHOULD PURCHASE SIX SECTIONS, WHICH WOULD BE SUITABLE FOR FOUR HORSES, AND WOULD CUT 18 FEET IN WIDTH; BY DISCONNECTING TWO SECTIONS, HE WILL HAVE A TWO OR THREE HORSE HARROW, CUTTING ABOUT 13 FEET. ONE SECTION ALONE IS COMPLETE IN ITSELF, AND SUITABLE FOR GARDEN WORK, WITH ONE HORSE.

The Harrows are Made of the Best Quality of Iron, and with Teeth Warranted to be Steel

We give a few of the many reasons why we claim superiority for these Harrows over all others in use on this Coast:

First—By the lightness of draft, taking into consideration the amount of work it does.

Second—By working uneven or rolling ground just as well and as evenly as if it was entirely level.

Third—They are made of Iron and Steel, and therefore are not affected at all by sun or rain, or by heat and cold; they are always tight, and ready for use; they are also durable. A farmer purchasing one has a Harrow that will last a life time.

Fourth—The teeth being fastened with a nut and screw into the cross bars, should one break, another can be inserted in a moment. We are making three sizes, all being the same in width, but differing in depth and weight only.

Prices, from $12.50 to $15.00 per Section.

All orders sent to

BREWSTER & CO,
Roseville, Placer Co.,

Will be promptly attended to, and satisfaction guaranteed in all cases.

CAUTION.

It has come to our notice that certain parties are now making this Harrow in this State, and that several of them have been sent here from the East. Now this is to *caution* all persons against making, selling or buying them, so made and offered for sale, as we shall enforce our rights in relation to the matter, and would call the attention of all persons infringing upon our patent, to the *law* in regard to it.

BREWSTER & CO.,
Roseville, July 15th, 1876.

Seeds. Seeds.

IMPORTED.

Crosby's Extra Early, Marblehead Mammoth, Stowell's Evergreen, Mexican Sweet, New — Sweet Corn.

Early Canada, Early Dutton — Yellow Flint Corn.

Long Red Mangel Wurzel, Yellow Globe, White Sugar — Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,
No. 317 Washington Street,
v8-tf SAN FRANCISCO.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in



FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.
Prices Unusually Low.

☞Trade Price List on application.

*,*My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,
419 and 421 Sansome Street S. F.

TO LEASE,
Valuable Farming Lands,
NEAR SAN FRANCISCO.

1,300 Acres of Splendidly Reclaimed Meadow Lands, on Sonoma Creek, in the Whole or in Subdivisions, on favorable terms, for a term of years.

The land is very fertile, perfectly reclaimed against floods, and admirably drained. It is beyond the influence of floods in the Sacramento River, and the water has never risen more than 20 inches against the levee, which is four and a half feet high and 14 feet broad. The first crop of barley put in last winter yielded three tons of hay per acre, and that which was not cut will yield heavily in grain. The soil is also superior for vegetables. It is 25 miles from San Francisco, and has six miles of frontage on Sonoma creek. The largest hay sailing craft can load from the banks at any point. Steamers touch at the wharf daily. Steamboat freights, $2.00 per ton; sailing freights, $1.00 to $1.50 per ton.

Maps can be seen and particulars obtained from

ROBERT J. MERCER & CO.,
REAL ESTATE AGENTS,
426 Montgomery St., S. F.

GEO. B. BAYLEY,

IMPORTER AND BREEDER OF



Jersey Cattle,
Choice Poultry, Etc.

OAKLAND
Poultry Yards,
Cor. 16th and Castro Streets, Oakland.

Send stamp for circular, containing a full description of all the best known and most profitable fowls in the country.

G. B. BAYLEY,
P. O. Box 659, San Francisco.

To All Interested in the Production of
CALIFORNIA RAISINS.

We are now in communication with reliable parties who have had 20 years' experience in the business in Spain, whereby we can furnish any information with regard to curing, packing, etc., gratis. We have perfected arrangements by which we can furnish cuttings of the famous Malaga Raisin Grapes direct.

FEUSIER & SPAFFORD,
310 and 312 Clay Street, San Francisco.

MENZO SPRING,

Manufacturer of

Dr. Bly's Patent Artificial Limbs.

OFFICE AND ADDRESS,
No. 166 TEHAMA STREET,
Cor. Third, bet. Howard and Folsom, San Francisco
sowhp

PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, JULY 29, 1876. [Number 5

A New Fungus on the Pine Trees.

Dr. H. W. Harkuess, who is devoting the snmmer to scientific studies in the eastern counties of the State, has discovered a new fungus on the young pine trees, which promises to harm the trees and of which our readers should be forewarned. In a communication to the San Francisco microscopical society, Dr. Harkness writes as follows: I have to-day forwarded for the society's cabinet a specimen of *Peridermium*, a fungus which is attacking the small pine trees in the vicinity of Colfax, at which point Mr. Moore and myself discovered it on the 26th of May last. On the 20th inst. I again visited the locality for the purpose of noting the changes which had occurred during the interval. The fungus belongs to the genus *Peridermium*, order *Æcidacie*, and appears both on the limbs and trunks of young trees of the variety *Pinus Ponderosa*, generally forming a complete circle aronnd the tree, its sporidia appearing as a zone of bright orange yellow. The spaces first germinate beneath the cuticle, which it destroys. Owing to the irritation of this presence, an abnormal thickness of the cambium is produced, which, in turn, gives place to an excessive growth of wooly fiber. This process being repeated from time to time, a large bulbous expansion is soon formed, so that, as often occurs, a stem of but an inch in diameter is enlarged to that of four or five. Above this bulb the further development of the stem is retarded or arrested altogether, its place being supplied by a dense tuft of minute branches.

As no reference to this fungus is found in any of the books at my command, I am inclined to the belief that it is a new variety. Yesterday I received a letter from Prof. W. G. Farlow, of Cambridge, Mass., in which he says: "I send you a specimen of *Peridermium*, which is attacking the *Pinus Ponderosa* of this vicinity. Do you find it in California?" As the specimen sent by the Professor agrees in every essential particular with the one sent to the society, it would appear that the fungus is attacking the forests in the Eastern as well as the Western portion of the United States. But one other variety of *Peridermium* is yet known upon this coast, and that is found upon the foliage of the *Pinus Insignis*, growing in the Golden Gate park, San Francisco, in the month of January last. This variety we then identified as *P. Pini*, which so far has not produced any special damage.

In the vicinity of Colfax the fungus appears to be limited to an area of but a few acres in extent. Within that area, however, it is destroying the young growth, and should it become generally disseminated, it bids fair to do great harm to the timber trees of this coast.

The Diana Grape.

We print on this page an engraving of the Diana grape, which is a matter of interest for the great diversity of opinions which growers hold of it, if for no other reason. Some pronounce it worthless and others are very loud in their praises. It is a variety which is greatly influenced by local surroundings, and doubtless to this fact is due the controversy. In vine it is a coarse grower and does not take to the close pruning system. Concerning the grape Mr. Downing epitomizes the description and Eastern experience in these words:

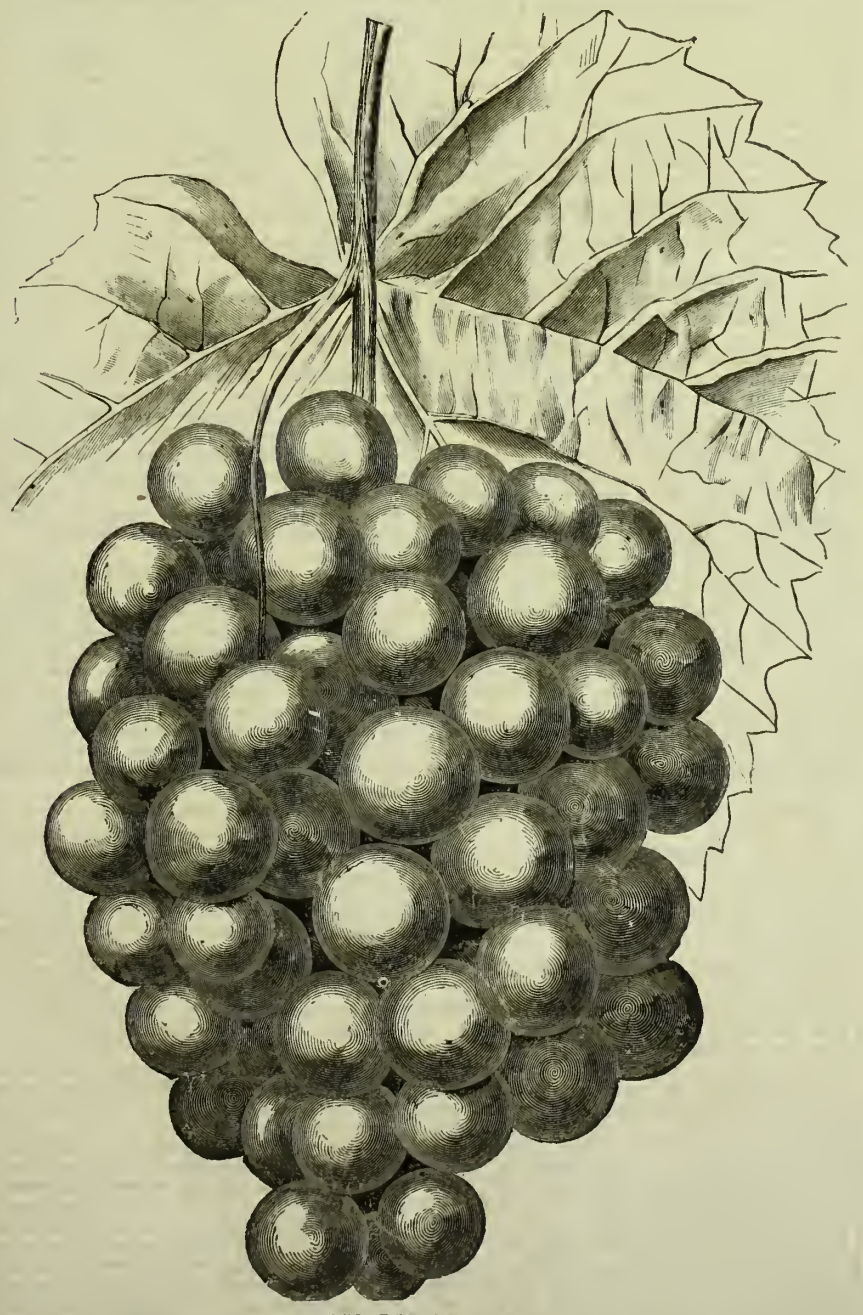
The Diana, a seedling of the Catawba, was rsised by Mrs. Disna Crehore, of Boston. It is a very fine fruit when well ripened, but while it colors early, does not ripen much, if any, earlier than Catawba. It is a very vigorous vine, requiring much room and long pruning, and increases in productiveness and good quality as the vines get age. It does not require a very rich soil.

The bunches are large, very compact and heavy, not properly shouldered, but often having a small bunch appended by a long branch of the peduncle.

The color is a fine reddish lilac, thickly covered with bloom. The berries round. The fruit when fully ripe abounds in fine rich juice, vinous and aromatic, from which all the offensive native odor has disappeared. It hangs long on the vines, is not injured by severe frosts and keeps admirably for winter use.

Weeds and the Weed Law.

We are sorry to note a very general apathy in our rural districts in regard to the spread of weeds. The Scotch thistle, yellow dock, hoarhound, cockle burs and mayweed or dog fennel are becoming so common as to give a very unthrifty look to our roadsides and fields. Some of these pests also cut down the incomes of farmers and stock owners to a very serious extent. It is no trifling matter to have a horse's tail turned into a sort of flexible club by an accumulation of cockle burs that can be removed only by a very considerable amount of grease and labor. A fair sprinkling of cockles and hoarhound seed will take off 25 per cent. from the market value of wool at the present rates.



THE DIANA GRAPE.

Where the Scotch thistle gets a good foothold it chokes out everything else. We are struck with the progress which it is making in Alameda, Contra Costa and Solano counties. It seems to favor the new earth of embankments thrown up adjoining bridges and culverts, and from these points the seeds are spread far and wide by the winter torrents. It is not as generally known as it should be that there is a State law which requires land owners in certain counties to destroy the Scotch and Canada thistles before they seed. We print it in this issue and commend it to the attention of public improvement societies and other friends of thrift and neatness. It should be made general in its application throughout California.

The Scotch thistle and most other weeds may be killed by cutting just before they blossom and a little below the surface of the ground. The Canada thistle propagates by underground shoots as well as seed and is therefore more difficult to deal with. It should on this very account be the more carefully exterminated wherever it makes its appearance in this State. The Scotch thistle has broad leaves which are mottled with white. About several of the larger towns in Alameda and Contra Costa counties there are several acres which seem to be devoted to their production and propagation. We hope that another year will see a change in this respect.

Self-interest and a decent regard for the rights of others should secure this, even where the arm of the law does not reach. We are under the impression that there is a law which is more general than the one which we print, but we are unable to find it now. If such a one is on the statute books of this State we shall be glad to have it pointed out to us. This fight with weeds is one in which all cultivators should join, and we invite a full discussion of methods to be pursued. The pestiferous ground squirrel has been annihilated in large tracts where formerly he did most abound. Now let us see what can be done with the weeds

Los Angeles Beekeepers' Deliberations.

From a report of the beekeepers' meeting, held in Los Angeles county, July 15th, furnished by the Secretary, W. Muth Rasmussen, we take the following items:

Mr. Davidson read a report from the committee on sale of honey. Also a letter from J. S. Harbison in regard to the same matter in San Diego. He stated that he had letters from the principal beekeepers in San Bernardino and Ventura counties, who expressed themselves willing to co-operate with us.

It was moved and adopted that the committee ascertain the charge for a store room in Los Angeles, find a competent person to take charge of and grade honey, and ascertain what his remuneration will be for grading and for selling and shipping honey from this store room.

It was moved and adopted that a competent person be appointed to proceed to San Francisco to urge upon the honey dealers the necessity of co-operating together, of holding the honey until the demand is such that a fair price can be obtained, and to induce them to make advances to producers who may be in need thereof, without sacrificing the honey at a low, non-paying figure.

Mr. A. J. Davidson was appointed agent.

Co-Operation.

L. S. Butler, committee man to confer with beekeepers in neighboring counties, read the following: We have received favorable answers to letters written to some of the principal producers of honey in San Bernardino and Ventura counties, in which they promise co-operation as individuals, and would try to effect an associated action. All, as far as heard from, including representative men in this and San Diego counties, realize the justice and importance of our movement, as it will protect not only the producing class but also the dealers in honey. We are advised by San Francisco dealers that producers are very much to blame in our present demoralized market in that city, by ordering forced sales while it is out of season for its sale; and also by sending to parties who, by inexperience, are not informed as to this fact, and have consequently sacrificed their consignments. Our local home markets have been affected in a similar way to that of San Francisco, and all of these will act and re-act so that our Eastern markets will be affected in like manner, according to the well-known laws of trade.

We are also in possession of facts which show clearly that the crop of this season is not large, and if properly offered for market and in the right season, there will not be enough to supply the markets that should depend on us for this useful article of food.

Postage on Printed Matter.—The bill restoring the old rates on printed matter has become a law, and is already in operation. Third-class matter is partially defined to be "transient newspapers and magazines, regular publications designed primarily for advertising purposes, or for free circulation at nominal rates," which is subject to postage rates of one cent for every two ounces, and one cent for each additional fraction of two ounces. So far as transient newspapers, magazines, etc., are concerned, the law is the same as before the change made two years ago; but the increased postage on the portion of third-class matter which comes under the denomination of merchandise is retained in the bill as established by the previous law—one cent for each ounce or fraction thereof.

Labor at the East.—We lately had the pleasure of a brief conversation with Rev. W. W. Brier, of Centerville, Alameda county, who has just returned from an Eastern visit. He reports a general reduction of wages in almost all employments so far as he has observed. To show the condition of labor in St. Louis he said a trustworthy man told him that if he should advertise one week for hands on a public work, he could get 5,000 at 30 cents a day. He returns to California fully impressed with the fact that this State is not such a bad place for a laboring man, after all.

CORRESPONDENCE.

Growing Mangolds.

EDITORS PRESS:—I have recently got out a private catalogue of my herd of pure bred Short Horn cattle and have put the name of each animal in small capitals just as I saw my own name printed in the RURAL a few weeks ago, as a sort of *reminder* of an article promised by me on subsoiling and mangold growing, which ought to have appeared long ago; but the land being kept so full of water in the winter months as to keep back the work, I had quite enough to do in the spring months to attend to putting in my own mangold crop, without amusing myself with writing for the instruction of others or, some may say, amusement—in a busy season. However, I am glad to say that I have now something to show for my work, in 18 acres of as promising looking mangolds as I ever saw on the same quantity of land—or perhaps on any land, and having just finished singling, or thinning them, I expect to have them all in *apple pie order* in a few days, and it will give me great pleasure to show them to any one who wishes to see them, and have a fuller explanation of my *modus operandi* than I shall be able to give in this article.

What I have to say does not by any means apply to *lazy* farmers (for my system requires a combination of brain and muscle); therefore if there are any who think they can gain anything from the few plain facts I am about to state, they will not think it too much trouble to put away the present number of the RURAL, for future reference when the proper season of the year comes round for putting the matter to practical test.

Experience in 1873.

On April 9th, 1873, after having five weeks of dry weather, I began to plow and work the first plowing of four acres of land, that had been in pasture for three years. I note in my journal on that day, "It is very dry plowing." I quote again: "April 21st, a moderate amount of rain during last night, wetting into loose ground about an inch; April 28th, a shower in the morning—enough to lay the dust," which was the last rain of the season in this neighborhood. On May 1st, I began subsoiling the above named four acres of land with four stout horses on a Howard's double plow, with subsoil attachment—i. e, working one plow, and a subsoil *fine* (not a plow) at the same time, the subsoiler breaking up the ground to a depth of 18 or 20 inches, without bringing any of the subsoil to the surface. The first plowing, having had alternate harrowings and rolling till it was worked to a fine tilth, was in almost a dry powdery state—much too dry for seed to germinate in, as the result only too plainly proved. And what was the result? Having finished sowing the mangold seed on May 6th, there was, by the middle of June, a plant here and there—that is all. Finding that the moisture had risen to within reach of the drill, by sowing a little deeper than usual, I took the drill on June 18th and sowed again. Under date of June 25th, I find the following: "Mangolds sown this day week are coming up; the soil is in much better order for putting in the seed than when newly plowed; there is now nice moist soil within four inches of the surface in the dryest parts of the field, and much nearer in some places."

The seed came up well all over, and—save where the fly ate off a few small patches—in December and January, I took off a good crop of mangolds for the dairy cows.

Experience in 1874.

The spring of 1874 being a favorable season, there was no lack of moisture in the ground. Therefore all I need state here is, that I began subsoiling for mangolds on the 23d of April; sowed 15 acres—having previously sowed three acres of Swedes for early using—at four different times, viz., on the 2d, 8th, 15th and 23d of May, from all of which I had a heavy crop, much to the surprise of some people, who inquired when I was preparing the ground for the seed, "if it was intended to be ready for next year." A part of the crop was intended for use in the beginning of next year.

1875.

Well, the spring of 1875 proves dry and I suppose I must relate my "bit of experience" for another season. The months of February and March were both unusually dry; between four and five hours' rain on the 28th of the latter month was our heaviest, and almost our only spring rain in this part, unless we call the rain of June 15th—which was altogether out of date—a spring rain. Between the 24th of May and the 3d of June I subsoiled nine acres of land for mangolds (the land having been plowed over in the early spring and kept free from weeds), which was ready for the seed on the 5th. On the 7th I sowed six acres, and the remaining three acres on the 9th, all of the ground being in first-rate order as a seed bed, 40 days after rain in a dry spring! Of course there were plenty of people to tell me the seed would never germinate. The same people may have said they would not have come up if it had not been for the rain on the 15th. Let us see. Referring to my journal under that date I find the following: "The rain has wet about two inches into loose soil. A good many of the mangolds sown eight days ago are coming up—just peeping through. There is about four inches of soil, loose and light, on top of the seed, so that, I think, they are coming up very quickly; but the ground was in first-rate order, being loose, warm and moist within two inches of the surface when the seed was sown." The above will show that it was not the rain that brought up the seed, because it did not penetrate to the depth the seed was covered—four inches—and it is questionable if the rain did any good towards the growth of the plants after they were up, because, in our dry climate, there is always two or three inches of dry soil on the surface during the latter part of the summer, at least on land as dry as that I have been growing my mangold crops on.

The Kind of Mangolds.

The kind I grow is the Long Red mangold wurzel, always buying imported seed at two or three times the price per pound of California seed. But it is really cheaper in the end. For instance, the six acres sown on the 7th of June, 1875, was sown with imported seed, three pounds per acre, at a cost of 75 cents per pound. The three acres sown on the 9th were California seed at 25 cents per pound—got it a little cheaper because it was late. From the seed at 75 cents per pound I had more than double the number of plants for the money that I had from the low priced seed. But that is not all; the crop from the California seed was of such a mixed character—so many different varieties—that I only got about two-thirds the weight of roots per acre as from the land sown with good seed—the latter a heavy crop, the former only middling as regards weight; as regards quality, inferior.

The Best Method of Growing.

Taking one season with another, I think the latter part of April and the beginning of May the best time for sowing. If sown earlier, it is more work to keep down the weeds, and besides the land gets too hard for the roots to keep up a healthy growth all through the long, dry summer; whereas, if the land is worked after the heavy rains are over, it keeps sufficiently loose and porous, by proper after-cultivation, for the crop to maintain a vigorous growth till the rainy season sets in. Upon the proper cultivation of the land after the plants are up depends in a great measure the success of the crop. If any weeds come there is no time to lose, for by attacking them at an early stage of growth with a proper horse hoe—I never use hand hoes—there is no trouble in killing them. But if allowed to make any headway they not only dry up the moisture in the ground, but permanently injure the growth of the plants, and besides that, cause a great deal of useless labor, or, at least, labor that might have been avoided

The crops enumerated have been grown upon dry rolling land—rather poor than otherwise—always requiring a good quantity of manure to produce a heavy crop of mangolds. I have merely stated what I am satisfied could only have been done by deep and thorough culture, without advancing any pet theories of my own about subsoiling, though I do think it a benefit to future crops to have the land stirred to an extra depth; and I have observed that it is almost impossible to plow a shallow furrow the year after subsoiling; in fact, deep plowing is almost an unavoidable consequence, as Mechi's plowman said of the plow, after the land had been steam plowed, "it will drop in." If I were to attempt to exhaust the subject I should need the whole of your paper.

ROBT. ASHBURNER.

Baden Station, San Mateo Co., July 22d.

Irrigation.—No. 2.

EDITORS PRESS:—I continue my notes on irrigation with some of the benefits arising from winter irrigation:

1. You are sure of getting your lands wet, rain or no rain.

2. You can water your lands before planting with one-fourth the labor that you have to spend in watering after planting.

3. The water will remain long enough in the soil to dissolve the gases, converting them into food for the plants, and drive worms and bugs to the surface, where they will be destroyed by the birds and fowls, also causing the larva and eggs of those insects to perish, thus comparatively freeing your soils from those troublesome creatures, and allowing you to put your lands in perfect order, in which they will remain until the crop matures.

It is the habit of too many, so soon as their crop is taken off, to raise their gates, stop their windmills and pumps, take away their dams, and otherwise labor to prevent their lands from getting wet; allowing all the water, however rich it may be, to pass by unappropriated, and their lands suffer for food; then ungratefully ask God to send rains and fruitful seasons, and remove the barrenness of the soil. Some are living near weather streams, that contain water six months of the year and then become dry; such should be like the miner, make use of it while it is to be had, and fill nature's reservoir, so that your trees, shrubs, plants and crops may flourish during the approaching dry weather, when, if this course was not pursued, they would become withered, stunted, and perhaps killed, before it would be in your power to afford them any relief.

Some will run out during a shower, to prevent a small stream that may have concentrated in a path or road from entering their garden or grounds, that may be so parched, and the vegetation that grows thereon so starved, that it was an eye-sore to its owner, instead of a pleasure. Such should pause and consider the amount of vegetable food contained in water collected from the surface of the ground; also, that all sweet water, however pure, contains the same, though in a less degree, and imparts it to the soil it passes through. For one to know that his lands are wet 15 inches deep at the time of planting, calculating to keep it so wet while the crop is growing, and then expect to reap an abundant harvest, is unreasonable; for all cultivators know that most kinds of vegetation root much deeper, if they can. Grass roots have been traced in our neighboring wells 20 feet in depth. Neither ought it to be sufficient for one to know his orchard lands are wet 30 inches in depth at the close of the rainy season, nor that he can give the trees a slight wetting during the growing season. Nothing short of a thorough soaking, once in 12 months, and keeping the land in good tilth, is sufficient; and that ought to be done early in the spring, in the winter, or late in the fall, at which time nature will do it, if she do it at all.

I do not wish to be understood in this communication as discarding summer irrigation; but leave that to be argued by able hands.

JOHN M. HORNER.

Washington Corners, Cal.

Sutter County Correspondence.

The Wheat Crop.

EDITORS PRESS.—The great rush of work in the harvest fields in this county is about over for this season, and the result is very satisfactory. The farmers have all got through heading, with very few exceptions, and there has been so much threshing done in connection with heading that with the many separators in use the stacks are fast disappearing. The yield, owing to some slight drawbacks, has not come up to our expectations of two months ago. The heavy north wind that prevailed just as the grain was ready to head, caused quite a loss among the bearded varieties, having whipped out from five to ten bushels to the acre, in some places. Club wheat, except where it grew very tall and heavy headed, did not suffer any perceptible damage. Some farmers think that the late rain has so relaxed the fiber of the chaff that some of the best developed kernels have shattered out from the constant friction of the heads The loss from this cause, however, is very insignificant, and is worthy of mention only as an item of observation. Everything considered, the yield has been such as to give general satisfaction. The grain is all of a superior quality, being well developed and weighing heavier than that of last year. The farmers in this vicinity feel that nature has rewarded them amply for their labor, and if their fellow men (the wheat ring) would but deal as fair with them, they would have reason to remember this Centennial year as one of great prosperity.

The low price of wheat does not appear to excite any uneasiness in the minds of the farmers in this county. They have all come to the conclusion that prices have reached the "bed-rock" and therefore there can be no risk in holding for a better market, as the wheat is sure to be needed. Most of them are so far ahead as to be able to store without borrowing, having been favored with good crops and fair prices for the last five seasons, and those who are compelled to borrow can do so at reasonable rates.

Storing and Shipping.

Our storing and shipping facilities cannot be surpassed for convenience. The farmers' co-operative warehouse, commonly called the Grangers' warehouse, at Yuba City, has a storage capacity of over 5,500 tons, which is being rapidly filled. There is already over 1,000 tons on store for the season, and the daily receipts average over 100 tons, and it is believed that one-half the grain that will be offered cannot be accommodated. The building is so conveniently situated, on Feather river, that two boats can be loaded at one time at very little expense. This institution was organized and incorporated in March, 1873, and from the start it proved a grand success, and the means of a great saving to the farmers.

Previous to the incorporation of this institution steamboats had ceased to run on this river for want of business, consequently all produce had to be shipped by rail to San Francisco, at a cost of $4.50 per ton. But as soon as this institution was established a line of boats was put on, which makes weekly trips to San Francisco, carrying wheat at $2.50 during the season of high water, and $3.00 per ton during three months of low water. In the last year this institution alone has shipped 7,000 tons of wheat, making a saving to the farmers of about $13,000, which would otherwise find its way into the pockets of the railroad company. It has also saved a great deal to its stockholders by purchasing grain sacks at the lowest price and issuing them pro rata at cost. The building is of brick with metal roof, which renders it thoroughly fire-proof, and insurance companies are willing to take risks in it at very low figures. The established price for storage is $1.00 per ton for the season; and at these low figures, under judicious management, it has cleared a handsome profit since its establishment. Its object is not to make large profits, but to accommodate the farmers generally and assist them in saving every dollar possible.

M. F. H.

Yuba City, July 22d.

A Death in the Family.

EDITORS PRESS:—There has been a death in our family. Sadly, slowly, with many a backward glance and convulsive effort to prolong existence, a life has gone out, and we are weighed down with a sense of undefinable loss. Not that the life was a worthy one, but it was *ours*, and we clung to the frail thing desperately, and cannot refrain from sending, asking for insertion in the RURAL, an obituary notice of the departed. If the life now no more *had* a virtue, it was *strength*. It reared itself proudly, proclaiming fearlessly to its immediate world daring opinions founded upon a "strong basis." But, alas! as time rolled on, and in the eyes of all men this foundation was seen to be surely and swiftly weakening, the haughty spirit faltered, the head bent low, until the weakened hold upon life gave way altogether and our friend was no more.

The thing that died was a *prejudice*—a strong prejudice against the PACIFIC RURAL PRESS. Why not? We were not Grangers, and a too, too persuasive agent came along and compelled us "by force of diction" to subscribe for a paper we didn't want. What resource was left to us but to find fault with the undesired purchase, since we were too worldly wise to waste breath in blessing (?) the indefatigable agent?

Well, the prejudice thus rooted grew, taking strong hold of our minds, and semi-occasionally extending itself to the tongues. But fate was against it. The excellence of the RURAL has increased so, grown gradually upon us to such an extent, that we guiltily found ourselves, when the weeklies came in from the office, all looking for it at once (and then immediately and universally might be seen to look the other way), not to mention making surreptitious thefts from its columns for the adornment of the family scrap book. Indeed it was the scrap book business that finished us; for the "man of the house" took one of his rare fancies to investigate that ponderous journal last week, and the result was a burst of laughter, and—

"Come, we might as well own up! It is an awful thing, *awful*—but *don't* you think the slandered RURAL is our favorite paper and the one we could least dispense with, after all?"

MAY F. WHITE.

Hill's Ferry, July 4th, 1876.

The Value of System on the Farm.

EDITORS PRESS:—Perhaps no one thing so far hinders the pecuniary success of the farmer, fruit grower and, in fact, all engaged in kindred pursuits, as the lack of system. And one of the chief requisites for a profitable business of any kind is the keeping of accounts, by which failures and successes may be traced to their primary causes. The above classes in a great measure trust to memory for their accounts and take it for granted that if they raise good crops and sell at the ruling market prices they are making all the profit necessary. They do not take into consideration that through certain causes their merchandise may have cost them more to raise than they receive for it afterward, and probably not one in 100 can tell anywhere near its cost. Whereas, a simple book account with actual figures would enable them to avoid a repetition of damaging causes, and they will know to a certainty whether they are progressing, retrograding or at a standstill. It is

By No Means a Difficult

Matter to keep a diary of farm accounts, noting at the close of each day what kind of work has been done, and cost of labor and materials for performing the same. Farmers, even though aware that they are making money, would still derive a great satisfaction in knowing just how much they are realizing and what it costs them to raise any kind of produce. Besides, they could give to others the benefit of their experience and in this way do a vast amount of good. Try it, farmers, and you will have no reason to regret it.

C. F. T.

San Francisco, July 21st, 1876.

[We cannot but enforce the truth of the above remarks of our correspondent by calling attention to the article of Mr. Ashburner on "Mangold Growing," printed on this page. Mr. A., it will be noticed, speaks directly from the record of his experience from year to year, as shown in his diary. No one can doubt that the keeping of a record has been of value in his experience, and of value to those who are permitted by his article to profit by it also. A farmer needs a diary of his experience as much as a merchant needs his ledger or a chemist needs his laboratory note book.—EDS. PRESS.

THE FASTEST CABLE TELEGRAPHY.—On a recent occasion, when all the Atlantic cables were interrupted except the Direct, the entire business for two days was done on this one wire, and the average speed maintained for 48 successive hours was 10½ words per minute, and the highest speed attained was 18 words per minute. Length of cable, 2,500 nautical miles. This is the fastest ocean telegraphy ever executed on a cable of equal length.

The Dairy.

Butter Preserving in Denmark.

We see no reason why California should not enjoy the profit of supplying the preserved butter which is sold in large quantities in the tropical countries to the south of us. This field seems to he now largely occupied by the Danes, and they are reaping large rewards to the trader. That our dairymen may have information on this new and important trade, we quote from the *British Mail* an interesting account of the extent and methods of the Danish enterprise:

After several ineffectual attempts to compete with the French, and introduce their tinned butter into the Brazils, East Indies and South America, two Danish merchants, when the French supply was cut off by the Franco-German war, at length succeeded in finding purchasers for their produce, shipping the same in 1871-2 to the value of £42,750. The tins, weighing when full four pounds to twenty-eight pounds, were lined with wood, which had been previously impregnated with salt; and such satisfaction did the butter give, that the export trade in the article rapidly assumed very large proportions, engaging the attention of all the principal Copenhagen dealers. Mr. Busck, of the firm of Busck, Jr. & Co., who had been the first to obtain a footing in tropical countries, converted his business into a joint stock undertaking, and the shares being quickly taken up in Denmark and Sweden, the Scandinavian preserved butter company was able to start at once with a capital of over £20,000.

As this factory is one of the largest and best conducted of the kind—and butter preserving, as there practised, forms a branch of industry as yet but little known in this country—possibly the following details respecting the organization and working of the establishment may be found worth the attention of those interested in dairying matters.

The Operations in the Factory

Succeed one another as follows: The casks of butter are first removed from the receiving chamber to one of the work rooms adjoining, and there emptied of their contents—the butter, which is in balls, being placed on a slab, scraped, and cut into slices one and a half inches thick These slices are then placed in a circular American worker, and, after two to three per cent. of salt has been added, are worked round the machine some eight to nine times. The fluted roller of the worker is driven by steam at the speed of about 90 revolutions per minute; and when the three machines in the factory are all in use some 50 tons of butter can be worked per week.

As the butter comes from the worker it is placed on a table, for convenience of movement mounted on castors, and it has then to be transferred to the tinning machine. The lower portion or stand of the latter also consists of a table, in the center of which may be seen a round cavity, just large enough to hold one of the tins. When a tin has been filled with a lump of butter, the next operation is to press down its contents as tightly as possible, and this is effected by the up-and-down movement of a plated rammer. A wheel turned by hand sets in motion (immediately above the table) a spindle, on which there is a pinion; this pinion, working into a rack in the rammer, causes the latter to rise or fall (and in falling to press downward into the tin below it), according as the handle is turned in one direction or the other.

The butter having been—partly by means of the rammer, partly by the help of a spatula—thus tightly pressed down, its surface is smoothed over, and a small portion around the edge, where the lid is to be soldered on, removed. The soldering process takes place in a different room, where a second operation is going on, viz., that of plunging newly-made tins into water to ascertain that they are perfectly water-tight. A small tunnel connects the tinman's shop on the other side of the courtyard with the room in which the tins are tested, and in the first story there are situated a store room, joiner's shop, and third work room. It is to the latter that the tins are removed by means of a hoist, after being hermetically closed, and the next step is to wipe them carefully with tow, color them red, and label them. They are then ready for export, and are packed in iron-hooped wooden cases, which are all of the same dimensions, though the tins packed in them vary in size and weight, the heaviest weighing 28 pounds, the lightest one-half a pound. As to the price, this depends on the size of the tin ordered and on quality—so-called "selected table butter," averaging at Copenhagen wholesale from 1s. 6d. to 2s. per pound; choicest quality, 1s. 3d. to 1s. 6d.; and mild salted ditto, 1s. 1d. to 1s. 2d. per pound.

According to the financial statement for 1874, the company had despatched during that year for consumption in hot climates and use for ship's stores, 1,000,000 tins, representing some two and a half million pounds of butter. Owing, however, to the high price paid to dairy farmers for the produce, and one or two heavy items on the debit side of the balance sheet—wages of 100 and 120 hands, salaries of office, clerks, and expenses connected with the manufacture of tins and cases—but a very moderate net profit was realized.

As the keeping qualities of preserved butter depend very largely on the way in which it is made and on its condition at the time of tinning, Mr. Busck is careful to reject all doubtful lots, and will purchase only from dairymen who comply with the following stipulations: That the cows shall not he fed on turnips; that the butter shall he made from perfectly sweet cream and according to certain prescribed rules, very little salt being added; and finally, that the worker employed shall he either the American one in use at the factory, or, in the case of a small dairy, a hand machine made and furnished by the company. The dairy farmers further engage to deliver the produce weekly, and at a price fixed beforehand for the whole year.

As a compensation for the alleged loss of five to seven per cent. of butter incurred through the abandonment of the system of making butter from sour cream (*i. e.*, cream which has stood 24 to 36 hours), they receive 10s. per cwt. above the average price of the best market produce, and at the beginning of 1874 the factory was supplied with the yield of some 130 to 140 dairies. This did not, however, suffice to keep pace with the increasing demand, and, in order to be able to extend the business and place it on a more independent footing, Mr Busck has since rented a large farm, and started a dairy on his own (or the company's) account.

Poultry Yard.

A California Chicken Ranch.

We find in the *Russian River Flag* an account of a successful poultry undertaking in Sonoma county, which we print for the interest, both in enterprise and methods of procedure, which it contains:

Last October John D. Hassett and H. T Walsworth concluded to venture into the chicken business on a large scale. They established themselves on the manzanita foothills one mile west of Healdsburg, on a tract of land of 256 acres; only a small portion of this, however, have they as yet occupied. At this time, after a nine-months' trial, they possess, by purchase and natural increase, 800 hens and 500 chickens—all in good condition. The whole affair is directly under the supervision of Mr. Walsworth, and as proof that he understands the business, there has been neither epidemic nor disease of any kind, as yet, although especially exposed by the additions which have been made by purchase from all directions.

The better for health, the fowls have been divided into

Families of Fifties.

They occupy houses, each built with the object in view of gaining room on the ground, as the fowls are kept in during the wet days of winter. To accomplish this with the least lumber, they are built as follows: First, a ridge pole 14 feet long is raised eight feet from the ground; 14 foot boards are used for the roof, one end resting on the ridge pole and the other on the ground, enclosing an area of 14 by 20 feet. To secure ventilation the ends of the houses are composed of open slatwork, mainly. In one end is the door, also of open work. Opposite this and against the other end, the roosts are placed about four feet from the floor, and in order to prevent a draft amongst the fowls at night, this end is closed to a hight of about five feet, which is fully as high as the heads of the fowls while roosting; above this it is open work. The floor underneath the roosts is protected by an apron sloping downward and outward to a trough without the house. These houses are located at considerable intervals, and although the fowls mix during the day, at night they separate, each 50 returning to its respective house.

The roosts are the subject of much attention. They are six feet long, two inches wide and one inch thick, planed smooth, and being movable, are taken out frequently and cleaned, and often soaked with coal oil, which is death always to vermin. No accumulation of straw or any rubbish is permitted for more than a day, and all the wood work connected with the establishment is kept soaked with whitewash, carbolic acid being sometimes added.

Equally important is the

Feeding,

And careful and constant study is given to it. Variety is the thing to be attained; what is suitable in the morning will not do at night, and summer diet will not do in winter. In the morning soft food is given, consisting of shorts and bran; afternoons, wheat and oats. This is summer diet, and as there are no worms to be had as in winter, beef heads are boiled twice a week to make up the deficiency; green feed being also wanting, it is supplied in the form of cabbages, green corn stalks, etc., which, being chopped fine, is fed twice a week, alternating with boiled potatoes. In the winter corn is added to the afternoon feeding, but will not do in summer as it is too productive of fat, which unfits for laying and tends to produce cholera. Insects are also obtained by the fowls from the bushes, which are in abundance on the place, and through which they roam. Crushed burnt bones are kept in open boxes in all the houses constantly; likewise slacked lime and ashes. Sulphur is fed three times a month; charcoal from three to four times a week, pulverized and mixed with the soft food. Bran and shorts are the greatest food for egg-producing known, but should occasionally be alternated with cornmeal or cooked barley or wheat.

With regard to the amount of food required, the 800 hens consume of wheat 10 pounds, and oats 20 pounds per day, from which a close estimate can be made of the entire cost of feeding. A large quantity of ashes are consumed, as hens both eat of it and carry it off after wallowing. Two barrels per week are required to keep up the demand. From the above it will be seen that a great variety of food is deemed essential for laying hens.

Hatching

Is attended with the same care and study. One house is set apart for this purpose, and 28 of the most docile are permitted to sit at a time. A box is first whitewashed and kerosened; then straw is put in and sprinkled with sulphur, then the eggs are treated in like manner, and lastly the hen the same; and the result has been that vermin have never been known to trouble the sitting hens. When the brood comes off, the box is set on fire and burned out. For the reception of the hens which have broods, coops are arranged near the Superintendent's house, along a tiny stream of water, in such a way that the little chicks can run out and in during the day and be shut up during the night.

Of disease there has been none; preventive being the principle practiced. Diphtheria is caused by cold which is caught from draft on the roost; but this is avoidable as has been described. Cholera can be superinduced by want of variety in the food, or absence of an essential kind, or the feeding of food which is too fattening. All this is avoidable, as has been shown. A supposed cure, by the way, is weak lye. Cleanliness and coal oil are death to vermin, as has been successfully proven. The preventives of all diseases and troubles are summed up as follows: Clean and proper food, clean water, clean houses and roosts, an occasional mixture of sulphur and charcoal with the food, and accessibility to sharp gravel—that from the river or creek being the best. The best breed for layers is the Leghorn, they being poor sitters. Another year and this flock will consist largely of Brown Leghorns, full blood.

This enterprise has met with such success thus far that it is the intention to double the number of laying hens by another year. As high as 26 dozen eggs per day have been gathered. These are readily disposed of at five cents advance on the market per dozen, on account of the shipments being warranted fresh, the lowest price thus far having been 31 cents in San Francisco, and the average the year round will be at least 40 cents.

The Vineyard.

Raisin Drying Floors.

Editors Press:—In your issue of June 24th I noticed a *critique* from the pen of M. Eyre, Jr., on the cost of drying floors for raisins. The method there discussed was evidently based upon structures in rock masonry and where money seemed not much of an object. As economy is a matter of importance with many, with your permission I beg to present a cheaper method—comparatively inexpensive, and so simple that all can be accommodated. It may also be utilized for a variety of purposes—as a threshing floor for beans, buckwheat, a platform for stacks, etc. These drying floors are common on the Mediterranean, and I would recommend them with some modifications in construction.

The Way to Make a Floor.

My plan is, after selecting a proper soil—a mixture of clay and sand is best, as it will not crack in drying—to remove all plants and roots, then plow 10 or 12 inches in depth, harrow thoroughly, then cross plow and harrow again, so as to completely pulverize the soil. Then treat as in "clay puddle," which is to add enough water to reduce it to a pasty condition, and working by means of a tool that has a sort of "poaching" action. On top of this add another layer of earth of six inches in depth and work as in the first instance,

The bed thus formed should incline to the south, and slope sufficiently to carry off any rain that might fall upon it.

Before the mud has quite hardened cover the entire surface with a coating of

Concrete,

Three or four inches deep, and smooth to a plane surface as in plastering. When quite dry a coating composed of lime and lampblack may be applied with a brush the same as whitewash is usually applied.

To protect the outer edges, a coping of brick laid in the best lime mortar or cement should be constructed. Also a catchwater drain.

To Protect From Dews or Rain,

I would suggest cotton drill awnings, attached to rollers operated by a crank, the loose end of the awning to be pierced with eyelets to fasten to hooks in a properly placed ridge pole, or to pass over the ridge, if the floor is a narrow one, to the opposite side.

Composition of the Concrete.

Concrete is composed of six volumes, by measure, of coarse sand and gravel, and one volume of best lime, mixed to the consistency of mortar. The labor of puddling is about five times that of shoveling the same amount of dirt.

A plot about 210 feet square makes an acre. My experience is that ten square feet is required, in the first stages for raisin drying, for each 100 pounds of grapes. They can afterwards be placed closer together. An approximate of size and cost of floor may thus be easily reached.

I regret that I am unable to find Mr. Sanders' article, to which you refer. I have some recollection about it and it is possible that it may contain some of the essentials of this. But "line upon line and precept upon precept," you know. The fact is I would like to see in *all* the papers of the Rural Press, as I deem them invaluable reading, but the "old folks at home" have the notion, a very correct one, too, that the Press contains a better epitome of California than all the other papers combined, and is it not our duty to scatter the seeds that will produce us a harvest of golden opinions?

G. C. Holman.

Lockeford, Cal., July 15th.

Display of Grapes.—The Centennial Exhibition Commissioners have set apart the period from October 10th to the 14th as a special time for the display of grapes, each class of fruit having a separate time in accordance with their time of ripening. The exhibit is expected to be something wonderful, and it is to be hoped that California fruit growers will make an effort to have their grapes fairly and extensively represented.

The Swine Yard.

The Value of Shelter.

Bartlett Brothers, of Round Grove, Iowa, write: In looking over the letters on the subject of "hog cholera" in the *Weekly Inter-Ocean*, I am more than ever satisfied that the key to the whole mystery is overlooked; and that it is good shelter. Seven years ago the disease went through this vicinity, commencing in the month of September, and every herd, with two exceptions, suffered; those two were treated no better than the rest, only they had good shelter and were well bedded. Our herd at the time numbered about 100 head of yearling hogs and as many more spring pigs, of which we lost about one-half. They were running on tame grass pasture, with a grove in it, and a creek of pure water running through it; had corn all summer, and had commenced feeding new corn. This disease broke out among our hogs, as with our neighbors, just after cold rains. Since this experience we have provided good, high-posted, well ventilated sheds, and kept them well bedded and dry at all times of the year, and have lost no more hogs from cholera, thumps or any other disease. We use no preventive medicines, and are raising 150 head yearly. We feed young pigs and sows mill feed and soaked corn, corn through the winter, with once in a while a feed of oats for a change. Give ashes every morning, either of coal or wood, as it comes from the stove; salt twice a week. We think it is one's own fault if his hogs have cholera, unless brought to them, until I find proof to the contrary than I have yet seen. I think it contagious but generally spontaneous. Should like to hear from other breeders on the subject.

The North Wind.

At a late meeting of the Agassiz Institute, of Sacramento, J. H. C. Bonte submitted a long essay on the hot, dry north wind, which frequently does serious damage in the Sacramento-San Joaquin valley in the summer. This wind evaporates an inch of water in 24 hours, at Sacramento, and still more at the ends of the valley, bakes fruit on the trees, chars tender leaves, kills buds or sprouts of cherry and peach trees, cuts down young orange trees like frost, sometimes kills old apple trees, blights and ruins wheat when in the milk, kills young turkeys and chickens, affects cows so that they give one-third less milk than usually, weakens horses so that they do not travel well, and has a depressing and irritating effect on the nervous system of man. It is sometimes called the "poison wind." Such a wind prevailed on Monday and Tuesday, the 26th and 27th of June last, and on the latter day the following temperatures were observed:

Towns.	Temperature. 7 A. M.	12 M.	9 P. M.	Lat.
Redding	84	104	90	40.35
Red Bluff	88	113	94	40.12
Tehama	84	110	100	40 00
Chico	76	111	85	39 40
Marysville	83	96	92	39.10
Sacramento	65	98	76	38.30
Stockton	70	96	69	37 55
Modesto	80	103	82	37.40
Merced	80	104	89	37.20
Goshen	78	111	73	36.20
Delano	81	103	92	35.50
Sumner		101	89	35 35
San Francisco	64	75	56	37.40

The latitudes are guessed at from a common map, and are not exact. The towns, save San Francisco, are all in the Sacramento-San Joaquin valley, on the line of its railroad, about 90 miles on the average from the ocean—none more than 100 and none less than 70. It will be observed that the heat is greater near the ends of the valley than in the center, which is cooled by the ocean breezes blowing in through the Golden Gate. Delano and Sumner are cooler than Merced, because they are south of Tulare lake, the evaporation from which reduces the heat of the atmosphere.

Mr. Bonte argues that while the north wind does much harm it also preserves man from many diseases, and protects grain from pernicious fungi. The planting of trees through the valley, by protecting the soil against the sun, preventing the early evaporation of the moisture from the winter rains, and checking the force of the wind on the surface, will have a tendency in time to reduce its influence in the future; and irrigation, by diminishing the heat and consequent rarification, will contribute also to the same result.—*Alta.*

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

P. of H.—Subscribers who pay fully one year ($4) in advance for the Pacific Rural Press can receive the California Patron *free*, or other premiums. See our premium list in another column.

The State Grange.

This body meets in San Francisco Tuesday, October 3d. We look forward to the occasion as one likely to prove of great social pleasure and lasting benefit to the Order and individual members.

All Past Masters and their wives who are Matrons have by action of the National Grange been restored to their former rights and privileges in the fifth degree.

Worthy Master Webster has expressed himself in favor of conducting the daily sessions in a manner to familiarize those in attendance as much as possible with the ritual ceremonies of the Order, that the work may become more uniform throughout the State.

It is understood that fourth degree members will be invited to attend most of the daily sittings of the session, and all who can make it convenient should avail themselves of this privilege.

We hope the volunteer choir will be on hand in full force, for, rightly conducted, the musical feature of the session can be made to pay every music-loving Patron for his attendance. Let all singing members come prepared to pitch their voices in the grand chorus without stint or ceremony.

For a season, forget all hurry. Masters should bring as many of their families and members as possible. Come prepared to stay as long as the work and social ceremonies may require.

Do not forget to save and bring samples of domestic produce to be exhibited in the State Grange and afterwards, if so determined, taken to the National Grange museum by the Worthy Master. Next to seeing each other's homes in various parts of this favored coast, will be the privilege of examining the products brought forward and compared from farms in every section.

A good suggestion has been made that members coming send word in advance to the Secretary, if they wish to co-operate in obtaining favorable terms for hotel fare or board while in San Francisco.

The Wheat Growers' Meeting.

As the daily papers are supposed to know everything which is going on, we print the following from the *Chronicle* of Wednesday morning:

Pursuant to a notice sent by the Grange officials to the different Granges in the State, about 120 delegates from the wheat-growing counties met with Golden Gate Grange last night to take into consideration the transportation problem. Some 24 wheat-growing counties were represented, and the delegates are men who not only are delegated with power by their respective Granges, but also men who are personally interested to a great extent in securing immunity from the onslaughts of the wheat ring. That oppression has become too heavy to be longer borne in silence. If the speculators are to reap all and the only profits on the immense crop of grain produced in the State, except what goes to enrich the owners of 500 or 600 foreign vessels, then there is no use in sowing any more wheat. So say these farmers, and they have come here with a firm determination to remedy the evil.

In Secret Session.

The convention was held in secret, in order that whatever plans may be resolved upon shall not be divulged until they shall have been completed and ready to be put into operation. Certain it is, from the almost unanimous voice of the convention last night, that those who have chartered ships by the fifties will find themselves short of cargoes before demurrage begins. These men mean business. This is an assemblage of sturdy yeomen, representing a large amount of wheat, who would rather trust their grain on the waves in their own vessels than to give it to the wheat ring for less than the cost of production.

A determined feeling exists among many farmers of this State to ship a large amount of grain on their own account. A first-class British iron ship has been chartered at £2 10s., and her cargo guaranteed. A large amount of wheat and farming capital was represented by the farmers present. Notice of future meetings will be given in our columns.

Temescal Grange.—The report of the committee on free evening meetings, for discussing subjects of special interest to farmers will be a matter of interest at the regular meeting on Saturday afternoon of next week.

San Diego County Granges.

From a communication of Bro. C. V. Tucker, District Deputy, to the *California Patron*, we condense the following notes concerning the San Diego county Granges:

Ballena.

Ballena Grange, though poor and weak, is alive and at work; our members have plenty of zeal and energy, but there is too much "stony ground" hereabouts to anticipate very much fruit; we are, however, waiting patiently for that "good time coming."

Poway.

Here I found the Grange in a very flourishing condition, notwithstanding that probably no Grange has suffered more from internal dissensions nor more severely felt the evil effects of Bro. Wright's too great haste in organizing. But they have nobly outridden the storm, and seem now to be on the high road to success, for which they deserve much praise. The present Master, Bro. J. M. Woods, is an intelligent, active officer, who will do his share of the work.

Bernardo.

Until very recently Bernardo Grange has been the most prosperous in the county. They have received many accessions to their members and have built a very fine hall, (I believe Bernardo is the only Grange in the county that owns its hall,) but at present, I regret to say, the Grange is not working as well as could be desired. It has enough good, earnest, true members, who, if they will but work together, can carry the Grange safely through its present troubles and to the front again. The Worthy Master, Bro. J. P. Jones, is an able, hard worker, under whose leadership any Grange ought to go ahead.

Bear Valley.

Bear Valley Grange is the best working Grange I have yet visited in the county; working with a due regard for the laws and usages of the Order, which augurs well for its future prosperity. It also has plenty of good material—faithful, earnest workers united among themselves, to carry any undertaking to success.

Bro. W. H. H. Dinwiddie, the Worthy Master, is a thorough Patron; who is one because he believes in the justice of our cause, and not simply because it pays to be a Granger. I wish we had more members of that stamp. Bro. D. united with the Order in Yolo county, where he formerly resided. When he joined Bear Valley Grange, at its organization, he brought to the work in his new field experience, intelligence and unlimited faith. No fears need be entertained of the ultimate success of Bear Valley Grange.

The Grange Warehouse at Martinez.—We have made frequent note of the progress of the Grangers' warehouse at Martinez. We now find in the Contra Costa *Gazette* the following description of the building: In plan and substantial character of construction no finer building for the purposes can be found in the State than the warehouse just completed for the Association by Mr. Lloyd Rider; and he is to immediately commence building the second warehouse. The wharf, now building and already out about one-half the intended distance, to depth of water for the heaviest draft ocean ships, is being built with superior timber, in strict conformity with the specifications, which are copied, so far as relates to quality and dimensions of timber, manner of building and fastening, from those upon which the best wharves in San Francisco are built by authority of the State Harbor Commission. Twelve-by-twelve inch square timber is used for caps, with same dimension timber for outside stringers, and four-by-twelve inch inside stringers, laid two feet apart from center to center. The caps are heavily bolted on the head of each pile, and each of the stringers to the caps every ten feet, with covering of three-inch plank spiked to each stringer. The roadway portion of the wharf is to be substantially railed in on each side for a distance of 1,100 feet out, and an iron T rail track will be laid from the warehouses to the end of the wharf, for the delivery of grain alongside the ships. The wharf will be completed within the next two weeks, and the Association is now prepared to receive grain on storage, furnish sacks and other usual accommodations.

Ferndale Business Association.—At a meeting of the stockholders of this Grange corporation, recently held at Ferndale, Humboldt county, the following directors were elected for the ensuing year: F. Z. Boynton, K. Geer, J. Benton, James Smith, G. C. Barber, J. A. Davenport, C. A. Doe. After which the following officers of the association were elected: F. Z. Boynton, President; G. C. Barber, Secretary; W. W. Foster, Manager. The Association lost its goods recently by fire, but at once subscribed the necessary funds to re-establish the store. The spirit is commendable.

Business Association.—Secretary Adams announces the next meeting of the Directors of the Grangers' Business Association will take place on August 8th, at 1 P. M.

Co-operative Association in Petaluma.—Petaluma Grange has formed a co-operative association. The Grange is very prosperous.

From the Granges.

Alhambra Grange.

Editors Press:—At a meeting of the Alhambra Grange, No. 230, the circular of the Yuba City Grange, No. 65, calling attention to the threatened destruction of agricultural lands along our rivers by debris from hydraulic mining, was submitted and carefully considered.

This Grange offers its fraternal co operation in supporting the sister Grange of Yuba City in her efforts to obtain that just and equitable protection which the laws of the land guarantee to every individual.

It is not a call for special privilages or immunities, but we claim that the consideration of this interest should be brought to the attention of Congress, as it is of national importance that the highways of commerce along our water courses should not by any means be obstructed, and still less obliterated by the inconsiderate prosecution of the otherwise beneficial industries. In this case it is more imperative because the injuries cannot only be avoided, but hydraulic mining, properly conducted, may be made incidently a source of great good to all by retaining the debris and the waste of waters, and discharging them in the dry and barren gulches, thus filling in or leveling otherwise waste places, and preparing them for human habitations. A provision of law to this effect would be legitimate and cause no hardship, as the profits by hydraulic mining are ample to cover all outlays in its prosecution, and this plan being practicable, therefore be it

Resolved, That this Grange fully coincide with the views of the Patrons of Yuba City Grange.

Resolved, That hydraulic mining should be restrained and governed by just and equitable laws, and under such regulations as to secure catchment of the debris in such places and manner as not to encroach upon vested rights, or destroy property or annihilate the natural water-way.

Resolved, That our Senators and Representatives in Congress be earnestly requested to give this matter their serious attention.

J. Strentzel, Master.
Mrs. Maria B. Lander, Secretary.
Martinez, Contra Costa county, July 1st, 1876.

Modoc Grange.

Editors Press:—Modoc Grange is prospering finely, receiving some applications. Crops look splendidly; grain is now heading fast and fair prospects for a good harvest.

There was a pleasant celebration on the 4th inst. at the Grange hall. Hot Spring Grange, No. 183, of Oregon, was in attendance, and a large concourse of citizens of Modoc county and Lake county, Oregon. A splendid oration was delivered by O. C. Applegate, and some fine music by Messrs. McCallum, Mulholland, Roberts, Watt and Stephens. The oration was a splendid one, telling of the past in glowing terms, with here and there a brilliant piece of poetry. The inventions of Americans were enumerated by Mr. Cheesman, formerly of San Francisco, Cal. Afterwards all were invited to dinner, where pies and cakes were to be seen strewn on the tables plentifully, also the beef and mutton, etc, from the barbecue pits, came steaming to the table. After all partook plentifully there was a large portion remaining.

Returning to the arbor the exercises were continued for a while with music recitations from various ones; among others was a Centennial poem by Charles H. Dyer. Near 4 o'clock, P. M., the meeting came to a close and a large share departed for home, though some remained to enjoy a ball at night. For the credit of all who were there it must be said that all passed off pleasantly. There were no wry faces or vulgar or profane language.

A. B Cranford.
Willow Ranch, Modoc county, July 7th, 1876.

Yuba City Grange.

Editors Press:—Our Grange meetings, owing to the busy times and warm weather, have not been largely attended lately, and, now that the harvest is about over, a great many are projecting little excursions into the mountains or to the sea coast to rest themselves and recuperate their toil-worn bodies before entering on the duties of another year. We do not, therefore, expect to have large meetings until all have again returned and found out how much pleasanter it is to live in Sutter county than in any other part of the world. M. F. H.

Yuba City, July 22d.

Financial Condition of the Cal. State Grange.—In his quarterly report, Secretary Adams makes the following encouraging announcement: It gives me pleasure to say to the committee that the finances of the State Grange are in a much better condition than they were nine months ago, at the time the present officers entered upon the discharge of their duties. At that time there was a debt against the State Grange (as near as could be ascertained), of about $950, (not including arrearages to the National Grange of $370); an indebtedness was incurred of $450 in having the retiring officers' books written up, making a total of $1,400, all of which, together with delinquent dues to the National Grange, has been paid, and the State Grange is comparatively free from debt."

The Fruit Growers' Interests will be discussed at Golden Gate Grange, S. F., next Tuesday evening. It is hoped large numbers of visiting members will be present from the fruit growing districts of the State.

Query Box in the Grange.

The *Grange Visitor* says of the query box in the Grange: "In this box any question can be put by any member, and his name need not appear. One of the orders of business may be the opening of the query box by the Master, and taking up one question at a time for discussion. This can be made an interesting feature of every meeting. No one knows what question is going to pop out, and the attention of every member will be elicited. Discussions will arise, inquiries be answered, and valuable information be imparted. Will our Granges try this and see how it works? We feel certain it can be made the means of contributing a vast amount of interest and information to the Grange. It will give members an opportunity to speak. It will give practice and ability to tell what they know, and this is a very valuable qualification to the farmers."

The query box has been introduced in Temescal Grange by Brother Webster, and will doubtless prove a valuable feature of the Grange meeting. The box is in the hands of the Secretary.

Election of Officers.

Riverdale Grange, No. 251.—J. H. Thomas, M.; T. Thompson, O.; H. Price, L.; C. E Swift, S.; J. Swift, A. S.; J. Chamberlain, C.; L. Lewis, T; C. H. Welling, Sec'y; W. Chamberlain, G. K; Mrs. Thomas, Ceres; Ada Swift, Pomona; Mrs. Price, Flora; Miss Thompson, L. A. S.

Live Members.—In every prosperous Grange we find some zealous Patrons who are looking after the interests of the whole body constantly, in and out of the meetings. If they come in contact with persons who are suited to enjoy and be benefited by membership, they inform them of the true merits of the Grange, and in due time the seed sown brings forth. The Grange is thus strengthened; the new members are made happier and better men and women. The zealous Patron has done a good work which will bless him through eternity. Let every Patron do the work along his daily path, and see that his steps lead to every individual in his neighborhood who is, by God's blessing, a suitable candidate for membership.

Grange in Arizona.—In his quarterly report Secretary Adams, of the State Grange, says: "An application was received at this office from persons living in Arizona Territory, for a charter for Arizona Grange, No 1. But as that Territory is not under the jurisdiction of the State Grange of California, no action was taken, except to forward the application, together with the charter fee (which I had received), to the Secretary of the National Grange for his action. I also sent a request to the Secretary to present to the Executive Committee of the National Grange, to have the Territory of Arizona placed under the jurisdiction of the California State Grange."

The Grange in Alabama.—H. Hawkins, of Eufaula, Alabama, writes as follows: "We are making the Grange quite a success in our part of the State. We saved last winter $25,000 in the single item of storage of our cotton, by organizing a Grange warehouse company and reducing rates just one-half the amount charged since the war. The reduction is now permanent and this amount will be saved annually."

The newly organized Pomona Grange of Nevada county has been named the "Excelsior."

In Memoriam.

STOCKTON GRANGE, No. 70, July, 1876:

Resolved, That in the death of Bro. C. M. Belcher, Chaplain of Stockton Grange, we have sustained a loss which time cannot replace, and the community at large the loss of a worthy citizen.

Resolved, That while we recognize in the death of our Brother the fulfillment of that law which dooms all earthly living things to decay and death, we deeply sympathize with the bereaved family and friends of the deceased in their sad and irreparable loss, and that we must all bow in humble submission to the will of Him who rules all things.—Committee: C. Grattan, J. Landers, W. L. Overhiser.

DANVILLE GRANGE, No. 85, July 22d, 1876.

Whereas, By the inscrutable decree of our Great Master, death has again been reaping in our ripening fields of golden grain, and has deprived us of our beloved sister, Mollie Meese, Worthy Patroness Ceres, in the beginning of her career of usefulness and honor; be it

Resolved That while we, the members of this Grange, sorrowfully mourn our loss, we do hereby tender our heartfelt sympathies to the many afflicted relatives, and especially so to the bereaved father, whose home is made desolate by this mysterious dispensation, trusting that the bud of promise yet remaining to him may be spared to grow and blossom into as perfect a flower of womanly worth and affection, to make glad his heart as he still gleans his appointed time in earth's harvest field. Wherefore, in sincere token of respect to our sister's memory as a member of this Order, and as an appreciation of her modest worth in the home circle and in society, be it

Resolved, That we wear the usual badge of mourning for 30 days; that these resolutions be spread upon the minutes, and that a copy thereof be sent to Brother Meese, and also for publication to the Contra Costa *Gazette* and Rural Press.—[Committee: Emily G. Norris, Mrs. Flournoy, Chas. Wood.

DANVILLE GRANGE, No. 85, June 24th, 1876.

Whereas, Death, in its resistless march, has taken from our field of labor Brother William Bell, formerly Gate Keeper of this Grange; therefore, in token of respect to his memory as a most worthy officer and estimable member of our Order, and as a tribute to his merit as an upright, honest and conscientious citizen, and kind neighbor, be it

Resolved, That this Grange wear the usual badge of mourning for 30 days, and that a copy of this resolution be sen to the sister and brothers of the deceased, and to the Contra Costa *Gazette* and Rural Press for publication.—[Committee: S. F. Ramage, Chas. Wood, J. Zabte.

Agricultural Notes.

ALAMEDA.

Notes from Sunol.—Cor. *Independent*: The harvest is progressing finely; all the farmers are busy cutting their grain; some has been threshed and hauled to the station. They report the orop to be fnlly eqnal to their expectations. Messrs. Hadsell & Co. are putting up a very extensive warehouse near the station to store hay. The hay crop is large here this year and a great deal is going to be stored. Tame oats at the station are to be seen of large size. A stalk of tame oats 6 feet 11 inches long with well filled heads for instance; that was raised on the ranch of Messrs. Duer & Nusbanmer. Take the length of the straw and the length and fullness of the heads, it is one of the finest samples of oats that ever was raised in this State. C. Hadsell, Esq., is having a sur vey made for the purpose of running the water from the Arroyo de Lagnna to irrigate the big field near his dwelling honse, which he intends to put into alfalfa after harvest. Mr. S. W. Millard is having his potatoes dug. They are of the finest quality, and being snch good eating potatoes, he sells them at home as fast as they are dug. He thinks he won't have to send any to San Francisco of the 40 acres that he planted. Raising potatoes on a large scale was an experiment in this valley, and it has proved qnite a success.

BUTTE.

Blindness in Cattle.—A new disease has broken out among the cows at Oroville. About half of them have gone blind, or nearly so. The eyes beoome inflamed, and in a short time they cannot see.

COLUSA.

Big Potato.—*Sun*, July 22: We saw at Willeford's, one day this week, a potato of the Early Rose variety which measnred nine and one-half inches in length and nine and one-half inches around the other way. It weighed two and one-fonrth ponnds. This potato was grown near the river on the Mitchell place, joining Meridian.

FRESNO.

Borden.—*Expositor*, Jnly 19: We received a oall on Monday from C. L. Peterson, of Borden. He informed ns that the farmers were getting pretty well through harvesting. The grain yield has been very good. Water for irrigation is still abundant, and vegetables, corn and trees are growing thriftily. As an illustration of what irrigation is doing for that section, he informs us that before irrigation was applied in that section the water in his well was 20 feet from the surface, and now it is within five feet.

Sheep Killed.—We learn that a band of 4,600 head of sheep, feeding in a narrow gulch near the headwaters of the San Joaquin, were washed away by a oloud-burst, during the late storm, and drowned. The sheep were owned by Messrs. Cobb & Co.

INYO.

Agricultural Products.—Cor. *Chronicle:* I hereby submit the following report of the grain milled here. Some estimate can be made of the crop as compared with other years: In the year 1870 there was milled 600,366 ponnds of wheat and 295,604 pounds of feed. In 1871, 650,471 pounds of wheat and 224,701 pounds of feed. In 1873, 726,366 pounds of wheat and 267,883 pounds of barley. From 1874 to the present we have milled 1,646,478 pounds of wheat, 71,717 pounds of corn to meal and 1,698,505 pounds to feed; oats, 195,120 pounds; barley, 308,535 pounds. The bulk of the oats and barley finds its way to market without being ground. We have only about 15,000 head of sheep. Inyo county is essentially a mining and not an agricultnral county, and hence everything we can produce finds a ready mar-ket in the mines. Flour brings $5.50 to $6 per barrel; feed, $4 to $4.50; butter, 37 cents; eggs, 37 cents; bacon, 25 cents. The agricultural products of the county are yearly increasing. The crops this year will be good, but there will be no glut in the local market.

KERN.

Lack of Laborers.—*Courier*, July 20: There is still a good deal of trouble to obtain necessary laborers to rnn the threshing machines in the valley. A great many farmers are waiting for the machine, and occasions a good deal of delay in getting the grain into market. The owners of the threshers could do great good and it would seem consistent with their acknowledged public spirit if they would effect a combination among the farm laborers to man the machine. We should be snpplying the market now supplied from Tulare, and anticipate the connection with the grain of the more distant south.

LASSEN.

Haying.—*Farmer*, July 22: The farmers are now in the midst of the haying season, and find it difficult to get sufficient hands to do the work. We are informed that the hay crop throughout the county will be nnnsually large. Mr. Byers, it is said, will out abont 2,000 tons.

MERCED.

Wheat.—*Valley Argus*, July 22: Farmers are exerting themselves to the utmost of their ability to get their crops of wheat and barley cut and threshed before the damp weather of the late summer and early fall commences. A few are done heading and threshing and are hauling their grain to market, bnt hy far the greater portion yet have all their force engaged at heading, and notwithstanding there have been a large number of threshers at work in this immediate vicinity ever since the harvest commenced, stacks stand quite thick yet all over the plain. Thongh the price of wheat in San Francisco is low, the highest price mentioned in the quotations being $1.52½ per cental, we think that if farmers had their grain in readiness enongh would be sold at the ruling rates to load all the ships in the bay. The aggregate amount raised this year in Merced oounty between the Chowchilla and Merced river will be immense, a very great proportion of which will have to be stored in the warehouses along the railroad. The greater part of the wheat now ooming into this place is shipped directly to San Francisco, but in a week or two storing will be commenced.

MONTEREY.

From Soledad.—*Index*, Jnly 20: Most of the early sown grain is going to tnrn ont well, but the late will be rather light. Abont five miles from hore, on the river, is some bottom land generally known as Poverty Flat, bnt a trip throngh the settlement will convince one that it has been wrongfully named, for there is no excuse for poverty on such land, if advantage be only taken of what natnre has provided. At present they have corn seven feet high, the tassel only jnst making its appearance. Beans, potatoes and melons are looking fine. Mr. Hopkins, one of the settlers in this vicinity, has an orchard one year old, and a more thrifty lot of trees cannot be found in the State. He also has a piece of alfalfa which stands about three and a half feet high in full bloom. Mr. H. is also experimenting with castor beans. He has upwards of an acre growing, and I think they will be a complete success. Most of the houses are shaded by large live oaks, and present a cosy and home-like appearance. The people are hospitable to a fault, and the visitor is well paid for a visit to the Cholon.

Abbott's Ranch.—Ventura *Signal*: Assemblyman Abbott, of Monterey, has npon his ranch, three mi es from Salinas City, 1,500 cows, and is msking butter at the rate of 900 pounds per day; 20 acres of beets averaging 50 tons to the acre—some weighing 100 pounds apiece, and one field of barley 2,000 acres in extent, yielding from 40 to 50 sacks per acre.

The Harvest.—*Democrat*, Jnly 22: Harvest in this valley is progressing fast as means will allow, and its outcome may now be seen. As a rule the growth of straw promised a very heavy yield, but the absence of lste spring rains and the "hot spells" pinched the heads, reducing the grain product by at least one-third. There has not been, however, as much shrinkage as was feared, and it is also to be noted that every farmer has a share, there being no failures anywhere reported.

NAPA.

Storing Grain.—*Register*, Jnly 22: The storing of grain has commenced in Sheehy's warehouse. About 100 tons of new wheat have been stored already, although but a small portion of the wheat in this vicinity has been harvested. Barley and oats of the new crop are also being placed in store. The price of wheat is now so low that little or none is being offered for sale, the producers preferring to hold it for better prices. Less grain is now stored in Napa than formerly. The Berryessa grsin growers now take their produots to Winters, while the ranchers np the valley naturally send their grain through to Vallejo, in preference to storing it here. There seems to be a fair bnsiness for one warehouse, however, considerable grain being produced in this immediate vicinity.

Fires in Grain Fields.—The fires that so often occur in grain fields from wood and straw burners are, we are assured by experienced threshers, easily avoided if a little caution and prudenoe is practiced by the operators of the machine. Instead of hauling ont the ashes and partially burned straw or coals and piling them up in a heap to be left after dashing a little water over them, they should be spread out thinly over the ground and thoroughly dampened down. In this way the fire and heat is entirely quenched; while on the other hand the heaps hold the fire until a wind scatters the crusted ashes that cover it and communicate the fire to the straw or stubble that surrounds it. It is worth while to he safe in these things when the practice of a little caution is all that is needed.

SACRAMENTO.

Cover the Grain.—*Record-Union*, July 22: One of the great advantages of California climate is the absence of rain during the harvest time. Farmers here go on with their haying and harvesting, taking no heed of the weather and making no provision to protect their hay or grain against a shower or a rainy day any more than as though it never rained in California. Indeed, it has become the custom of farmers to pile np their sacked grain in the harvest fields where the same is threshed, and allow the same to remain exposed to the snn and dews for months, or until it is convenient to remove it, or until the same is sold. While it is often a great convenience to be able to do this, it is not always good economy to do so. The common jute grain sack, if allowed to remain thns exposed to the weather any length of time, becomes rotted and decayed to snch an extent as to be incapable of holding the grain when handled. By such exposure, too, the sacks take on an old and rnsty look, making the lot look uninviting and neglected. Of these ciroumstances buyers will take advantage and claim an allowanoe in the purchase. On these acconnts it will generally pay well to buy lumber to cover the piles of grain if they are to remain in the field any length of time. We would also remind our farmers that the present is an exceptional season. The atmosphere is much more moist than usual at this time of year and every indication points to early rains, and they may come much earlier than nsual and catch onr farmers unprepared for them. In consideration of these circumstances we call the attention of farmers to the importance of being prepared, and wonld snggest the propriety and importance of covering the sacked grain as a matter of caution and safety.

SAN BENITO.

Hydra-head Barley.—Hollister *Enterprise*, July 22: A curious growth of barley is witnessed on the ranch of L. H. Cook in Santa Anna valley. Bunches of it grew in a flax field, the seed probably having some way got mixed with the seed of the flax; and upon nearly every stalk from three to a half-dozen shoots or stems put out, and on each one of the latter is a well filled head of grain. Some of these stems shoot out within a few inches of the ground, and others up near the top of the main stalk. This kind of growth is peculiar to a certain class of wheat, but old farmers tell us they have never seen it in barley. Mr. Cook intends preserving the grain to plant next year, and we shall be curious to see whether it will reproduce itself or not.

SANTA BARBARA.

Honey Movement.—*Press*, Jnly 15: Mr. A. A. Metcalf, of Boston, Mass., will soon ship 40,000 ponnds of California honey East, and in a short time thereafter he will have 80,000 pounds more sent. Mr. Metcalf is at present in Santa Barbara, associated with the interests of the Pioneer planing mill; he will go East in a week or two.

SAN JOAQUIN.

A New Ibrigating Project.—Stockton *Independent*, July 21: The farmers living along the southern side of the Mokelumne river, between the Calaveras and the Mokelumne river, are seriously agitating the construotion of an irrigating canal on rather a new and different plan from any ever proposed heretofore. G. C. Holman, Esq., has made a survey and fonnd a practicable line from the Mokelumne river, below the wire bridge, at Lanoha Plana, and running into the head of Bear creek, in a distance of a little less than seven miles. This little stream, which is entirely dry in summer and only serves to carry off the snrplus water in winter, runs nearly parallel with the Mokelumne and from one to five miles distant from it. Its banks are low, and being a natural water course, it would answer all the purposes of an irrigating canal withont the cost of right of way or construction. With the building of hut seven miles of ditch, costing from $75,000 to $100,000, an area of country could be irrigated containing from 75,000 to 125,000 acres of land. The stream can be readily dammed at any point and the water taken out on either side. It is proposed to build it with a width of 100 feet on top and having a depth of four to five feet. The project seems quite feasible and would result in making the rich, loamy land from Comanche to Woodbridge, and the tules, entirely independent of drouth, and capable of raising every year double the quantity at present possible. By making the ditch larger it could be made to carry the greater part of the water in the river, and could readily be extended sonthward, covering the land north and northwest of Linden, and it is qnite practicable, too, to bring it across the Calaveras above Linden and make it cover all the land which it would have a capacity to irrigate hetween this city and the foothills to the eastward. We hope to see this project started and carried forward to suocess. It is thought that a small ditch to accommodate the ranches nearest to the line of Bear creek could be out with an assessment of $1 per acre, or a total cost of say $40,000. Located on the right ground, this could he enlarged to any required dimensions as necessity required.

SONOMA.

Threshing Commenced.—*Democrat*, July 22: J. T. Baker, the first of the season, threshed over 5,000 bushels of wheat on the Santa Rosa plains last week. The grain generally yielded better than was anticipated.

Stock Company for Wine Making.—*Flag*: This enterprise is one of the most important for Healdsburg. Every land owner, capitalist or merohant is interested in the movement. If we have a stock company here they will buy all the grapes that are now raised, and in a few years all our side lands will be covered with vines. As those who devote themselves to the culture of the vine generally buy small parcels of land, say 10 to 15 acres; their coming would give a numerous population to the country. The products of the winery being sold away will bring money into the community to fill the pockets of the wine growers and farmers. I hope the people will give their attention to this matter, and on Saturday, August 5th, attend the meeting which will be held at 2 P. M. in Healdsburg.

STANISLAUS.

Squirrel Law.—*News*, July 20: Land owners who believe in the efficiency of the new squirrel law, and wish to see the nuisance abated, should see to it that proper persons are proposed as inspeotors. The board of supervisors will meet next month, when the matter will be considered.

Arriving.—Wheat has commenced to arrive in town in considerable qnantities. Consequently matters around the warehouses in town are more lively than usual. The low prices, however, are tending to keep the grain out of the market, and is delaying harvesting to a latter date than otherwise would be the case.

Grain Crop.—The threshing of the present season's crop in this locality, shows there seems to be a great diversity in the yield. Many fields turn off more than was expected, or any previons estimates placed them at, whilst others are much shorter. The yield in this county will be reduced oonsiderably below the first estimates.

SUTTER.

Free Honey.—*Banner*, Jnly 20: Bee hunters are said to be doing an excellent business this season. A resident of San Joaquin City hived four swarms of bees and secured nearly 80 ponnds of honey one day last week. Along the banks of the San Joaquin and on Old river bee trees are nnusually plentiful.

Spuds.—The potato crop in this oounty this season has been immense and the qnality in most cases excellent. Farmers living near the Sacramento river are now planting a second crop, with a good prospect for a fair yield. Gelzhaenser, near Yuba City, has a large field of these profitable vegetables growing, being the second planting. The Early Rose seems to be the variety chosen by almost every one.

Threshing.—S. R. Fortina has had his 14-horse power thresher in operation at E. M. Thomas' place for several days past. On Friday last he threshed out 2,447 bushels of wheat and barley.

TULARE.

The Vine Eaters.—*Delta*, July 20: We have noticed for several seasons that, at about this time of the year, the under sides of squash, melon, cucumber and other vines are covered with a very small green winged insect, whioh soon destroys the leaves and eventually kills the plants. These insects are also found nnder the holyhock and of some kinds of trees, and destroy their fresh looks, curl them up and suspend their growth. If any of our readers know of an effectual and ready remedy they will confer a favor on many by making it public through onr colnmns.

New Ditch.—Messrs. Jas. Fowler, L. B. Hawkins, T. D. A. Collins and others propose constructing a canal, taking water from the St. John's creek, on the line of the Consolidated People's ditch, and thence to Elk bayon, and down said bayou to Tulare City. The proposed ditch is to carry 100 feet of water. It is estimsted that there is at least 300 feet of waste water running through Elk bayou at the present time. By utilizing this, a large scope of country near Tulare City would be brought nnder profitable cultivation.

YOLO.

Editors Press:—I am a constant reader and admirer of your paper, and am certain every one, to say the least, who owns any land would be profited and benefited by being a subscriber to it. I have always been interested when I have seen a notice either of horticnlture or fruit. I came up from the bay two months ago from the city of Benicia, and directly through the heart of Solano and Yolo counties. It was grain, all grain, and excellent, too. I saw Wolfkill's fine place, and I saw Winters, a new village of 100 houses. Capay has a fine wide stream of drinkable water running through it, lined with tall cottonwood and oaks. A gentleman in San Francisoo owns 1,000 acres. His house is directly on the banks of Cache creek, under the tall trees. Jnst at the left, scattered among immense oaks, are his nice, great barns. He raised 40 bushels of wheat and more of barley per acre. He has a great vineyard, and makes only brandy. It is made by his excellent tenant, Mr. Castenella, a Genoese, who has an interesting family of three lovely girls, who do not disdain labor. Capay has two villages, Cottonwood and Langton. The real Capay, Langton, is now a small village, but the railroad is pnshing up and is to be pushed after harvest. So we prediot it will be the center of a large grain oonntry. The land here is a white clay, plentifully intermixed with sand and gravel, all good for figs, almonds, peaches, grapes, nectarines and apricots. The water is good. In winter the air must be deliciously cool, as the monntains, beautifully wooded with oak and nut pine, are close by. But it is a hot country in summer, the heat so many degrees above 100 in the shade that I dare not name it. The number of cases of sunstroke in Jnne in Capay was four to six, and three deaths. Eighteen died in all in Yolo county, and Solano must be abont like it in climate. The same tronble is here as in all California. They are beginning without money and they have a hard time. Accidents are so common, expenses are so great that most of the ranches had better be in the hands of the wealthy for the present time. There are no fleas here. The soil does not permit it.—* *, Capay.

Wheat.—*Mail*, July 20: A good deal is being brought in by farmers, some of which is sold and some stored. The price paid here is $1.35 per cental.

YUBA.

The Transportation of Fruit.—A new invention, which has been snccessfully tried for transporting meat in a fresh state from Australia to England, has just been applied to the transportation of fruit by rail from California to the East. The patentee has at his own expense shipped two carloads of peaches and apricots from Marysville to Chicago, where the fruit arrived in jnst as good marketable condition as when it was picked, and it bronght the highest market price. A third car, in which Mr. William B. West, of Stookton, is interested, has been forwarded, and if it shall prove under all conditions a thorough success it will be of incalculable benefit to the horticulturists of the State, who will thus have opened to them unlimited market for their fruit at the most lucrative prices.



Small Beginnings.

A traveler through a dusty road strewed acorns on the lea;
And one took root and sprouted up, and grew into a tree.
Love sought its shade at evening time, to breathe his early vows;
And age was pleased, in heats of noon to bask beneath its boughs;
The dormouse loved its dangling twigs, the birds sweet music bore;
It stood a glory in its place, a blessing evermore.

A little spring had lost its way amid the grass and fern,
A passing stranger scooped a well, where weary men might turn;
He walled it in, and hung with care a ladle at the brink,
He thought not of the deed he did, but judged that toil might drink.
He passed again, and lo! the well, by summer never dried,
Had cooled ten thousand parched tongues, and saved a life beside.

A dreamer dropped a random thought; 'twas old, and yet 'twas new;
A simple fancy of the brain, but strong in being true.
It shone upon a genial mind, and lo! its light became
A lamp of life, a beacon ray, a monitory flame;
The thought was small; its issue great; a watch-fire on the hill;
It sheds its radiance far adown, and cheers the valley still.

A nameless man, amid a crowd that thronged the daily mart,
Let fall a word of hope and love, unstudied, from the heart;
A whisper on the tumult thrown, — a transitory breath,—
It raised a brother from the dust; it saved a soul from death.
O germ! O fount! O word of love! O thought at random cast!
Ye were but little at the first, but mighty at the last.

—*Charles Mackay.*

Centennial Chat.—No. 2.

[Written for the PRESS by MARY MOUNTAIN.]

I have been trying to imagine a pen driven by the concentrated brain power of the whole quizzing multitude, who gather and scatter here day after day, and wondering if such a pen could possibly present enough of the reality to satisfy the distant reader. For my own part I dare not think of the distant reader; but I drop like a coward into the pleasantest corner I have found yet; where the invitation is always standing, "Come in and read your own home paper." This is Rowell's newspaper pavilion, where more than 8,000 American publications of all sorts are constantly served up fresh and filed away in the most orderly manner.

Surely nothing could have been invented more homelike than this quiet retreat, close by the lake and the cool chief fountain, where you can take an easy chair and rest at a great rate while skimming the very top cream of the last RURAL. That means a dip into Mr. Ewer's letters, and a dangerous dip it is for me—just takes all my courage away to note with what a vigorous air he grapples this immensity as though it really can be handled, and, if it can, he is certainly the man to do it; so I may as well get myself into marching order and bring up the rear with various odds and ends. Before leaving Rowell's for other centers of attraction I would like to express my thanks and admiration of the enterprise and editorial courtesy which has spread out, free for all, this rare pleasure.

And now, if one is in doubt which way to turn, the U. S. government building, close at hand, is so large and so full of interest that days and weeks might be spent there with great satisfaction. Last winter in rainy evenings we were reading a series of articles upon

The Stone Age,

With illustrations of the most remarkable relics found. So when we came upon whole cabinets and long rows of glass cases filled with venerable fossils, genuine war-clubs, tools, images and all sorts of antediluvian tale-bearers, we were delighted to be on speaking terms with them and, looking as wise as possible, we marched from case to case, tracing the progress of

Pre-historic Man.

I think it was about the tenth case where he began to eat hash, and here was the original flint chopping knife, broad and remarkably well preserved. His progress was very rapid after this, and he or his wife began to indulge in beads, charms and other little flinty fripperies. Just as I had discovered a cunning little flap jack shovel, and was trying to make out whether it once had a long handle like mine at home, up came a brisk and portly sight-seer, who opened both eyes and mouth with astonishment at such a long array of arrow-heads, slings, daggers, battle-axes and other more peaceable tools.

But his gentle companion had sharp elbows, and used them nudgingly as she cried out, "Oh, do hurry up! Who cares for a mess of old rocks!"

This was pretty severe snubbing for the mound builders, and I fear this dumb story of the peculiar hardware and hardship of their lives will ever seem to that astonished man like the broken fragments of a dream. I call it a dumb story, written here in stone and clear, hard flint; but will our own records of life and labor be more enduring?

The columns supporting the roof over this collection of relics are decorated with the huge, grinning idols and monstrous images made by those tribes who found it necessary to give form and color to their religious notions; but very likely we do wrong in accusing them of actually worshiping these pot-bellied deformities. We might, perhaps, as justly accuse the modern Christian of worshipiug his luxurious church and big organ.

Nearly every creed builds symbols between itself and God; and it is quite possible that the pagan who carves an image may be as truly devout as he who carves a pulpit.

These old images have absurdly big noses, and perhaps this proves how venerable and well-founded is the belief that power and breadth of character may always be found behind a big nose.

Not far from here may be found

Models of the Cave Towns

That still exist in good state of preservation along the Colorado canyons. They are cut in the sides of high bluffs overhanging the river, and the town represented by the model has a central house of three stories, with wings of two stories extending each way, and all the houses are connected with each other along the whole line of 600 feet. Our Grange encampment is built in a similar style, but the Aztec builders are ahead of us in frontage—ours only measuring 496 feet.

These ancient cliff dwellers evidently understood the advantage of co-operation, and from samples of their handiwork spread out below the models of their houses, we see they knew how to furnish their homes with dishes and baskets, matting, corn-grinders, woven cloth, tanned skins, and various tools for agricultnre and manufactures.

They also had leisure for games, and we see here a bundle of worn old sticks they used for counters in some dead and gone style of gambling. Some of their pottery was brightly painted, and so well glazed that the colors are still fresh.

Passing from these relics of a people who were proud, happy and industrious long before America was dreamed of by Columbus, we come upon a section of an oak tree which stood inside the entrenchments near Spotsylvania court house, and was cut down by musket balls in an attempt to recapture the works. Several bright-eyed boys hang around the rough old stump and slyly ran their fingers along the bullet gashes; but fingering is not allowed because of the remorseless relic hunters who would make short work of a dozen such stumps if they had the least chance.

Here are four of the queerest old six-pounders, looking so very historical one is sure to hunt up the card which tells us they belonged to Revolutionary fathers, and were

Presented by Lafayette.

Close by is an ancient breech-loading cannon dating back to 1570; a relic of the early Spanish occupation of Mexico, and with still brass enough to look squarely in the mouth of a fine modern gun, one of a battery of Whitworth guns, presented by loyal Americans in Europe to the U. S. Government in 1861.

All around this point are warlike sights and sounds enough to stir the pulse of a veteran or put an extra strut into the proud walk of the "West Point cadets," who survey the world's fair with the cool, critical glance of those who know all about it. And what are the warlike sounds? The clang of machinery making cartridges and turning out guns—more and more improved guns.

Winding its sweet way among the big noises comes the sound of martial music, and there goes a band playing "soldier tunes." A crowd always follows the band, or rather any band that marches, and we have here several of the finest bands in the country. A marching band is always supposed to lead on to glory of some sort, and ever since the cadets encamped out there beyond the great sawmill,

Their Dress Parade

Is always surrounded by admiring crowds, and more young ladies than you would care to count.

It was rumored one afternoon that these straight young soldiers were to show us their last parade and then break camp for the return trip. Ah, the girls looked sorry, and some were sisters, to be sure, and pointed out "Will" or "Tom" in tones that enlisted all my sympathy.

"See, there's Will sweeping out the third tent in the fifth line. He knows I'm here, but he don't *hurry*. How long he is putting things tidy."

"Well he might be," growls the envious young brother; "if he leaves even the washdish slack wont he catch it? All the cads are down on somebody 'cause he wouldn't let 'em bring but 10 pairs o' white pants for 10 days. O, my! And then there's the gray pants anyhow, and how many more d'ye think they want? I tell ye Bell, they feel awful slack up," etc.

By and by Will has the tent in order for inspection and comes out to see Bell. I could easily admire his soldierly bearing and lofty stride; but his stiffness toward poor Bell nearly set my teeth on edge, for he looked as if sisters were nothing but a bother; and as he marched off with Bell and the younger brother, the bystanders growled a little about West Pointers being a "spoiled set of fellows." The cars come up again and again loaded with the hundreds who like to help spoil the cadets, and they all wait patiently in the broiling sunshine while the officers inspect arms and muster the companies for their usual drill. It is all new to me and really quite beautiful to see the harmony of motion all along the line and all the boys looking so full of spirit and strength. After the drill tents were not struck and word went around that further leave of absence was hoped for and "more white pants." They were highly favored in being allowed to camp on the Centennial grounds, where this little village of white tents contrasts finely with the handsome architecture of some of the largest buildings in the world.

Returning from parade we again pass along the shady side of the great sawmill and notice the enterprise of Canada here as well as in all other departments. In the main building, in agricultural hall, in machinery hall and in the art galleries, Canada has distinguished herself and many of her provinces have sent special exhibits of grain, furs and minerals, pottery and beautiful iron work. Then out in the grounds they have a quaint log house to represent the backwoods, and some sections of their big trees, lumber, etc.

I was delighted one day to come upon a rather quiet nook in the main building filled with curiosities "from Greenland's icy mountains." All sorts of furs made up into cloaks, shirts, boots, mittens and stiff little petticoats and hoods. Then there are odd looking tools, models of the native boats, with all sorts of fishing, hunting and domestic implements, not gilt-edged for the occasion but such as they are actually using. The bunches of sinew for thread, the clumsy needles and pins made of fish bones and many other things represent to us the hardship of their narrow lives. Yet they have some idea of "trimmings," and much of the native work was ornamental as well as useful. Some chubby Arctic ducks stood peering with glass eyes into a great nest of beautiful sea fowl eggs. All this was included in the department of Denmark, and that must have separate notice.

THE WOMAN NEEDED.—The weary old world wants woman. It has had enough of those who call themselves so; enough of those who frown upon worth and culture and make fashion and family and position override all other claims; enough of indolent self-indulgence and pretence, and it groans in travail for the genuine woman, representative of all that is possible, high and noble in her sex. It waits for those who shall dare to be true to every womanly instinct, assert and defend every womanly conviction in the womanly spirit, and send out into society and through all the earth the light and grace, the healing and power that comes of woman. Everywhere in society, it is woman we want. As the reach and crown of a man's life is to be manly, as that sums up and includes all that we have to say or aspire to—so to be womanly is the only worthy object of feminine aspiration; and the true womanliness is not only the culminating of the sex, but the divinest beauty that God gives to man to see. I plead for it, because so many, in the glare of the life that now is, have forgotten glory it might be made to be; because so many are looking for peace, satisfaction, reward, where they never can be found. I plead—for every day, more and more, I feel the want of woman for every need and deed of life; woman, not of genius, but of character; not of position, but of influence; woman, saintly and tender and true. It was a genuine outburst that broke from sweet lips, and many a woman says it:] "I want to be above the little meanness and follies and frailty that spoil so many women." Only let that be the broad want; only let women see to it that these are uprooted and flung away; only let womanly grace and virtue abound, and the working is done, and she who is said to have lost us Eden, will have gained us Paradise!

EARLY MORNING.—The brightest, the best, the most beautiful part of the day is the early morning. There seems also to be a moral influence, and sweet, healthy power at this time. The air is fresh, the feelings are renewed, the spirit is calm, and we enter upon the day rested and restored. If we had a day without night, and our hours of repose were amidst the hot rush of constant activities, we should lie down and be unrefreshed. It is a blessed provision that nature gives us, in the curtains of the night, and we must sleep with the glare of the day shut out, and arise in the morning, as the day begins to see all nature start afresh. There is both stimulus and encouragement in the air we breathe at this time.

GOOD ADVICE FOR THE YOUNG.—Avoid all boastings and exaggerations, backbiting, abuse and evil speaking; slang phrases and oaths in conversation; depreciate no man's qualities, and accept the hospitalities of the humblest kind in a hearty and appreciative manner; avoid giving offense, and if you do offend, have the manliness to apologize; infuse as much elegance as possible into your thoughts as well as your actions; and, as you avoid vulgarities you will increase the enjoyment of life, and grow in the respect of others.—*Blunders in Behavior Corrected.*

Sensitive Plants.

[Written for the RURAL PRESS by M. J. H.]

Among the number of strange and wonderful plants which have been described and classified by botanists, are those possessing properties so peculiar that the observer at first sight is inclined to accord them a degree of intelligence at least of the higher brute type if not of the human.

Springing from the moist earth, developing leaf after leaf, one of our attractive varieties forms a rosette composed of leaves and leaflets, sending from the center a stem rising about six inches upward, and there bursting into a clustering crown of delicate white flowers.

Sensitive to every touch, the leaf folds close to its bosom the surest lighting on its surface, or touched even by a delicate hand, folds together like the covers of a book quickly closed. The blossoms of certain plants are so sensitive to the effect of light and heat that they open and close at the same time each day, marking the sun's altitude and inclination.

There are 24 varieties of plants whose blossoms open and close successively during the different hours of the day and night.

The flower of the water lily closes and sinks into the water precisely at sunset, rises again to the surface and expands with sunrise.

Bearing a relation to the floral clock is a floral calender, in which each month is marked by its own loyal flower.

> "There never yet was a flower fair in vain,
> The seasons toil that it may blow again;
> Nor is a true soul ever born for naught."

Too apt are we, like the prophet to wander to the mountain in search for that which blossoms at our very door. We forget when admiring the beautiful mountain climber clinging to some one's rustic arbor that the same grows wild in the woods, or that the vine by our own door is only waiting for a trellis upon which to climb. Growing wild are our fairest flowers.

> "Under the roughest jacket the truest love may flow,
> For under the leaves of the forest the pinkest May flowers grow."

Some work for us all. If it be to

> "Lift back the faded, fallen leaves from off the human heart,
> Lift them back that it may act its truly noble part."

In associating with sensitive persons, the discipline for us is good and great, "for there are moments in life when the heart is so full of emotion that if by chance it be shaken or into its depths, like a pebble, drops some careless word, it overflows, and its harshness, spilt on the ground like water, can never be gathered together."

For there are moments in life when in a spring of our nature a twig bends forward to bathe, it overflows, and the drops, as they trickle down frozen by our lack of charity, chill many a new born leaflet.

Too much that should fall as moisture, causing the sensitive plants to grow strong and beautiful, falls in the shape of snow and hail.

Too many noble lives that we should lift up and give as it were to them sunshine, until they are strong, are trampled under our feet, but their nobleness is not lost. As the perfume of a crushed and bleeding flower fills the air with fragrance, so the noble patience of a life rudely crushed fills the air with a sense of purity breathing which should penetrate our souls and make us nobler.

San Mateo, Cal., July, 1876.

HABIT.—"I trust everything under God," said Lord Brougham, "to habit, upon which, in all ages, the lawgiver as well as the schoolmaster has mainly placed his reliance; habit which makes everything easy, and caste all difficulties upon the deviation from a wonted course. Make sobriety a habit and intemperance will be hateful; make prudence a habit, and reckless profligacy will be as contrary to the nature of the child, grown or adult, as the most atrocious crimes are to any of your lordships. Give a child the habit of sacredly regarding the truth, of carefully respecting the property of others, of scrupulously abstaining from all acts of improvidence which can involve him in distress, and he will just as likely think of rushing into an element in which he cannot breathe, as of lying, cheating or swearing."

ORIGIN OF THE NAME KANGAROO.—The origin of the name "kangaroo" is thus described in a recent work of F. Bucklaud: "When Captain Cook first discovered Australia he saw some natives on the shore, one of them holding a dead animal in his hand. The Captain sent a boat's crew ashore to purchase the animal, and finding on receiving it that it was a beast quite new to him, he sent the boatswain back to ask the natives its name. 'What do you call this 'ere animal?' said the sailor to the naked native. The native shook his head and answered, 'kanga-roo,' which means in Australian lingo, 'I don't understand.' When the sailor returned to the ship the Captain said, 'Well, and what's the name of the animal?' The sailor replied, 'Please, sir, the black party says it's a kangaroo.' The beast kept this name ever since."

PRESENT DUTY.—He who is false to present duty breaks a thread in the loom and will see the defect when the weaving of lifetime is unrolled.

House-kept Women.

Probably it is true, as the wise one tells us, that we women should have fewer "blues" if we spent more of our time in the open air. In the State Reports concerning the condition of insane asylums, it is mentioned as one of the chief causes of the excess of female over male lunatics, that women live in-doors too much, and breathe too little out-door air. Our silly and barbarous costume is one thing that lies in the way of our regular daily exercise out of doors. It is almost too absurd to believe, and yet it is true, that hundreds and perhaps thousands of good, decent American women wear in their kitchens, and about their daily work, skirts that touch the floor. They make their calico dresses according to the prevailing mode, with under and over-skirt, "caught up" and "tied back" when fashion says so. When these come to be old dresses, to be worn on washing days, how ridiculous they are! And when they are out of style what silly shapes they have! Others wear dresses made in plain and simple styles, which "just clear the floor," or "just touch the feet." But even this more mitigated form of woman's slavery to skirts does not render a woman free to run out of doors at a moment's notice, as a man can, without care and anxiety for her clothing. When the dew is on the grass, when a shower has just fallen, when the walks are muddy, she will probably stay in the house unless obliged to go out. Perhaps she wears slippers in the house, and cannot afford the trouble of changing them for thick shoes, or of putting on rubbers. No house is worth the name of home which has nowhere about it a shady porch or airy shed where a housekeeper or a hired girl can sit down in cool comfort, to shell the peas, hull the strawberries, or peel the potatoes, where she can set her ironing table, and wash her dishes without foregoing fresh breezes and near neighborhood to grass and vines. Thoreau, who had a contempt for such treasures as most mortals love to lay up here below, observed that when a man had compassed his desire and got him a home, it seemed after all to be the house that had got him. So it is with many women—their houses keep them quite as much as they keep the houses.—*Faith Rochester.*

A Promising Pupil.—Some years ago a benevolent lady of this city took a little negro girl into her family, intending to give her a very thorough moral and religious training. Unfortunately, the child was much given to lying, and though the mistress strove incessantly by precept and example to eradicate this vice, her efforts were far from successful. One day, returning home after some hours' absence, the lady was met at the door by her sable handmaid, who, with many tears, informed her that she had broken a very valuable china pitcher, an heirloom in the family. Here was light in the darkness at last, strict truthfulness in the face of reprimand or punishment, and the good mistress was delighted. Such an opportunity to reward and strengthen virtue must not be lost; so the lady magnanimously forgot her annoyance at the loss of her cherished pitcher (one of a pair), and, taking out a penny said, kindly, "Well, Jenny, since you have been such a good girl and told the truth so quickly, I shall not even scold you. Here is a penny for you." Alas! the next morning the lady, on returning home from market, was met at the door again by her promising pupil, who delightedly exclaimed: "Oh, mis-us! I'se broke the *other* pitcher. *Won't you give me another penny?*" Further description of that good woman's state of mind would be superfluous.—*Harper's Magazine.*

Pretty Custom of the Polish Girls.—At Warsaw, the annual fete of "floating crowns" was recently celebrated, and it attracted, as usual, a large crowd of spectators of all classes. It consists in the young girls of the city carrying wreaths of roses, decked with ribbons, to the Vistula, casting them into the river, and watching them as they are carried away by the current. The manner in which they are borne along by the waters is supposed to predict the future destiny of those to whom they belong, and accordingly the girls make demonstrations of joy or sorrow. A somewhat similar practice is prevalent among the young girls of India.

Truth.—How beautiful is truth! In this world, where there is so much falsehood and deceit, whereby hearts are estranged, and recriminations, assaults and crimes engendered, how beautiful are the true thought, word and deed. Like the sun smiling out amid the angry storm, like the bright stars shining through the heavy night cloud, like friend clasping the hand of friend, like right rebutting wrong, like the lance of virtue ringing on the shield of vice, like heaven upon earth and God in man is truth! Precious and priceless, dearer than smile of friend, love of parent, or pomp or fame. Truth is all. By this we know the nature and value of things. Falsehood is a craven, a dastard. Truth is bold, noble, and God-given, beyond every other attribute of the soul.—*Hall.*

We should practice temperance, if it were for nothing else but the very pleasnre of it; it is the glory of a man that hath abundance, to live as reason, not as appetite directs.

A Good word is an easy obligation, but not to speak ill requires only our silence, which costs nothing.

Young Folks' Column.

The Historical Tribunal of China.

Editors Press:—In your issue of July 15th, I read with much interest the communication from Mrs. Georgie, of Merced City, in your "Young Folks' Column," and headed "A Visit to a Chinese Joss-house." However, in the course of that lady's remarks I read a passage referring to Chinese history which, I believe, is entirely incorrect; it reads thus: "Historical facts prove that before the age of Confucius the annals of Chinese history are fabulous and uncertain. Confucius himself admits that it is almost impossible to credit those remote ages," etc. I do not know where your lady correspondent got her information from, but she is greatly mistaken both about the confusion of Chinese history prior to Confucius and the latter's opinion. Khoung-Seu, or Confucius, as he is generally known here, and who lived in the sixth century B. C., not only believed in the correctness of Chinese history up to the time of the first Hoang-ti, who reigned in the year 2637 B. C., but even traveled through several of the main kingdoms into which China was divided at that remote epoch, for the very purpose of bringing on reforms and preaching people to come back to the old customs of that good old time since the days of Hoang-ti.

Some years ago I had published in the Boston *Investigator* about the Chinese in California a description of the historical tribunal of China. As it is a direct answer to the passage referred to in Mrs. Georgie's letter, and that its republication in your "Young Folks' Column" might be read with interest by old as well as young folks, here I will give it to you:

The tribunal of history of the Chinese empire is unquestionably the oldest literary institution extant. It has been in existence some 4,500 years, having been founded by the Emperor Hoang-ti 2637 years before the birth of Christ. It was founded for the purpose of preserving an accurate and reliable history of the empire, and it is worthy of remark that the decree organizing the institution refers to the "ancient history" of the country as being made up of traditious, and unreliable. Father de Mailla, who lived 45 years in China, at the very court of Kang-hi, in the 16th century, translated into French the great Chinese annals. The work, which comprises twelve large quarto volumes, contains nearly all that is known by Western nations of the history, institutions, arts and sciences of the Chinese. In the preface to the history, Father de Mailla gives a sketch of the tribunal of history, and cites the writings of contemporary Chinese writers to prove the accuracy and fidelity of the annals.

The tribunal is composed of five members, who are selected from among the most distinguished scholars of the empire, hold their positions for life, and are entirely independent of contemporary authorities. Each member of the tribunal is required to write on sheets of paper an account of all important events as they transpire, which are placed in a bureau or chest containing the imperial seal, and so constructed that the sheets cannot be withdrawn except by breaking the seals. No person, not even the emperor, is allowed to read the events recorded in his own time; but when a change of dynasty occurs the seals are broken, and the annals are open to the public. A commission is then appointed to collate from the annals kept by the several members of the tribunal an epitome of the preceding dynasty. The history of 27 dynasties, which have flourished since the time of Hoang-ti, has thus been written out, and is preserved in the archives of the tribunal. The following anecdote, extracted from the great Chinese annals, will convey an idea of the manner in which the members of the tribunal regard their duties. We translate from the French of Father de Mailla:

Tai-Tsoung, emperor of the Tang dynasty, 627 years after Christ, demanded of Tchou-Soui-Leang, the president of the historical tribunal, permission to examine the memoirs of his reign. "Prince," responded the president, "the historians of the tribunal record the good and bad actions of princes, their praiseworthy and reprehensible words, and all the good and bad done in each reign. We are exact and irreproachable on this point, and not one of us would dare do otherwise. This impartial severity is an essential attribute to history, and it thus serves as a check on princes and nobles to deter them from committing acts of injustice. To this day, so far as I know, an emperor has never been permitted to read the history of his own reign."

"What!" said the emperor, "if I should do nothing good, or if I should commit a bad action, would you, Tchou Soui-Leang, record that also?"

"Prince, I should be much grieved, but holding the important position of president of the historical tribunal of the empire, I should not dare to fail in my duty."

Lieou-ki, one of the members of the tribunal, who was present at the conversation, added:

"Tchou-Soui-Leang, although he is president of this tribunal, would not have the power to substitute falsehood for truth. His colleagues would not fail to record the prevarication of their chief."

"Still more," added the president, "the demand of your majesty, and the conversation I have just had with you, will be accurately recorded in the memoirs." Felix Gillet.

Nevada City, July 18th, 1876.

Good Health.

Guard Against Contagious Diseases.

The following excellent practical directions for combating infection and preventing the spread of the "catching" diseases, such as small-pox, measles, typhus, scarlet fever, etc., embodying the measures recommended by eminent medical authorities, may be adopted with all confidence as suitable and efficient:

House Ventilation.—Keep rooms and passages sweet by opening windows and doors for the admission of fresh air. A fire with windows open greatly promotes ventilation. The burning of coffee or sugar also enhances the effect of ventilation.

Drinking Water.—See that the water pipes are clean, and in every case filtration is a very desirable precaution.

The Sick Room.—Remove bed curtains, window hangings and carpets. Use ventilation continuously, supplementing by the burning of coffee, sugar or with disinfectants, sprinkled from time to time on the floor, and inhaled into the air by means of a spray-producer. Place a dish or soup plate containing disinfecting solution underneath the bed occupied by the sick. Empty utensils as speedily as possible, and on replacing them in the sick room, throw in some disinfecting fluid. To all water used for cleaning, washing and scrubbing, add a small quantity of disinfecting fluid. Keep within reach of the patient a basin similarly charged with disinfectant for him to spit into, and have close at hand a tub or pail of diluted disinfecting fluid, into which immediately throw any article of clothing removed from the patient. Instead of a pocket handkerchief, let him make use of small pieces of rag, which are to be burnt after use. Hang outside of the door or room, from jamb to jamb, a sheet or old counterpane, and keep it moistened with disinfecting solution.

Infected Clothing or Bedding.—Linen and woolen articles, as admit of washing, on being removed from the patient should be plunged for 24 hours in a tub of water, diluted with disinfectant, and immediately washed afterward, which can be done with impunity. Cloth, clothes, mattresses, beds, pillows, etc., in the absence of a public disinfecting oven or room, are to be disinfected by exposure in the open air to the sun, if possible, or in front of a large fire, and thoroughly smoked by burning coffee, sugar, or other aromatics.

Nurses and Attendants.—Woolen dresses are to be avoided; and the preference given to washing materials. Prevent contact, as much as possible, between attendants and the inmates of the house. After handling the sick, or things connected with them, let the nurse be careful immediately to wash his or her hands in water impregnated with disinfectant.

The Patient.—As soon as may be admissible, anoint the surface of the body, the scalp or skin of the head included, twice a day with camphorated oil. The earliest appearance of scaling off of the scurf-skin will furnish the indication of the period beyond which this measure must not be delayed. When the patient has gathered sufficient strength, let him take a warm bath, to which has been added some disinfectant, and afterward be washed with soap and water. During a week or ten days from this time he may be kept apart, repeating daily the disinfecting ablution; after which he can, with safety, mingle again with the family.

Disinfectants.—The best known disinfectants are chloride of lime, Condy's fluid chloride of zinc, carbolic acid, camphor, carburate of camphor, bisulphate of soda, green copperas, Labarraque's solution of chloride of soda, salicylic acid. When doctors disagree, who shall decide? Either of the above are efficacious, and objectionable to some of the medical profession. But what chemical substances are truly disinfectant? According to the eminent chemists, Dumas, Chevrieul and Tage, certain chemical substances are serviceable in neutralizing unpleasant odors, while other chemicals are required in order to arrest the fermentation or decomposition of the decaying tuberances which produce the epidemic, influenza, and bad odors. For example, while chlorine, chloride of lime, zinc, and nitrous fumes are well known neutralizers of the odors of sulphureted, carbureted, phosphoreted hydrogen or ammonia, they have no power to arrest the decomposition whereby those odors are produced. This, moreover, is accomplished readily by carbolic acid, phenyl creosote, and especially carbolate of camphor, which act like tannin upon all albuminous substances and prevent further decomposition. But carbolate of camphor has a double action. While it tans dead muscle upon contact, it kills every living sporule it touches, and thus, what is now believed to be the active principle of all contagious diseases is rapidly attacked and destroyed, and is therefore admitted to be the great scavenging principle of nature—a most powerful cleansing, neutralizing remedy. The combination and preparation, in a suitable fluid form, of the properties of carbolate of camphor, afford the means of bringing to bear, at any particular time and place, this most remarkable and effective agent in arresting and preventing contagious diseases.

From dead bodies all chance of infection will be prevented and all effluvia destroyed by wrapping them in sheets saturated with a solution of carbolate of camphor.—*Dr. L. Lanszweert.*

Domestic Economy.

Making Vinegar.

Daisy Eyebright in the *Country Gentleman* gives the following useful vinegar recipes:

Gooseberry Vinegar.—Squeeze a quantity of partly ripe gooseberries through a linen cloth, and expose it, in a jug uncorked, to the sun for a week or more. The jug must be filled to the brim when it is set to work, and a bowlful of gooseberry juice prepared in order to fill it up daily as it evaporates in fermentation. When it has worked, bottle it and keep it well corked. This is delicious vinegar to use for the table, and for making raspberry vinegar.

Currant Vinegar.—After making currant jelly, turn boiling water upon the skins and stems of the currants, and stir them well together until the water becomes quite acid and well colored. Then strain it off and put it in a jug to work, like the gooseberry liquor. A little brown sugar may be added to it to give it more strength. After it has become vinegar bottle it for use.

Raspberry Vinegar.—Fill a stone jar with ripe raspberries, and cover them with the purest and strongest vinegar you can obtain, and let them stand for a week. Then pour the whole contents through a sieve, and crush the berries thoroughly. To each pint of the juice add one and a half pounds of lump sugar, and let the liquor and sugar boil long enough to dissolve the latter, and throw up a little scum, which should be removed at once. Then bottle the liquor and cork tightly. Two tablespoonfuls of this vinegar stirred into a tumbler of iced water will furnish a delicious drink, not only for invalids, but also for other persons.

How to do up Shirts.—A lady gives the following in the *Ohio Farmer*: To three tablespoontuls of common starch, well boiled in one quart of water, add a lump of lard the size of a pea, a tablespoonful of loaf sugar and a little salt. Let it cool until you can use it without burning your hands. When the clothes are thoroughly dry, dampen your shirts in a thin, cold starch, roll them up and let them lay one hour before ironing. When ready to iron have a bowl of clean, cold water at hand, dip a clean handkerchief into it and wring it out dry; then stretch the shirt over a shirt-board, and with the dampened handkerchief wipe off every particle of starch that appears on the surface, taking care always to wipe downward. Be careful not to have the iron too hot. The more pressure you use on the starched surface the finer polish you will get. I have done up shirts in this way for several years, and know that it will produce a polish equal to any laundry work. I forgot to mention in its proper place that you should never boil the starch until the clothes are ready to hang up to dry. No shirt can be done up nicely without a shirt-board. The one I have is two feet long and one foot wide—an inch board planed smooth, and covered on one side with six thicknesses of flannel, the top one being soft white flannel. The first five thicknesses are stretched over tightly, and tacked securely on to the edge of the board all around; the white flannel, outside, is stitched to the edges of the others, so that it can be removed for washing whenever necessary. Old blankets or shawls that have done their duty as such can be well utilized for this purpose.

How to Make Good Tea.—Dr. Smith, in his little work on health, thus sums up the requisites for a good cup of tea. 1. Use sufficient tea. 2. Make the pot warm with hot water, or otherwise, before the tea is put into it, or it will cool the hot water. 3. Let the water be boiling at the moment of using it. 4. Fill up the pot at once. 5. Do not use water which has already been boiled, but boil it fresh for the purpose. 6. Cover the teapot, or place it where it will be kept nearly as hot as boiling water. Do not place it on iron that is nearly cold, and imagine it will be kept warm because it is before the fire, for iron draws out heat very rapidly. 7. Let it stand 10 minutes. 8. Use brook or running water if possible. If well water be used, and it is hard, add a very small pinch of carbonate of soda.

Potatoes are a standard article of food on most tables, but they are often so badly cooked that they are neither palatable nor wholesome. As a breakfast dish they are excellent. We like them prepared thus: Select the smaller ones—leaving the larger ones for dinner—scrape off the skins of new potatoes, put them into cold water for ten minutes, have water boiling, and cook them twenty minutes; pour off the water and add a cup of milk or cream, and thicken it with a little flour and butter rubbed together. Butter never floats on the surface when mixed with flour thus, nor does the flour trouble you with lumps. It is just as well, however, to leave out the butter, mixing the flour with a little cream.

Molded Rice.—Take eight ounces of rice and one and a half pints of milk. Wash, and swell the rice in the milk, till the whole of the milk is absorbed and the rice thoroughly softened; then pressing it into a mold or basin for half an hour, with a weight upon it, serve it, turned out, with preserved or stewed fruit.

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Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, July 29, 1876.

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The Week.

The days have brought tidings of but little aside from the usual progress of affairs. The harvest hurry, as it nears its termination in one part of the State, arises in another, and the "sunrise until dark" style of days continue to the workers. There have been the usual number of fires and minor accidents. Just as we go to press there comes a dispatch which will make the week sadly memorable if it be true. It is that a boiler exploded on the ranch of Pike Gupton, in Colusa county, killing three men and seriously wounding five others. This is all the information the wires afforded. It is not often that such notes of dire disaster disturb the peaceful quiet of the farm, and we sincerely trust that this lesson may press home to all who are handling agencies powerful for harm and make such life losses very few.

While we suffered slightly in our gardens from the recent heat, our Eastern friends were losing their crops. Reports from Long Island say that the potato vines are burned so that they look like dead weeds. Peas are wholly gone. The ground is so dry that late cabbage cannot be planted, and tomatoes are destroyed. These are sad words that the week speaks, but strength and hope remains.

The Situation in Wheat.

The situation in wheat remains very much as last noted. There is still a firm holding for higher prices than are offered by the speculators who need the wheat to fill their ships. There are occasional sales reported in the interior at $1.35 per cental, and in the city at $1.50, but the bulk of the crop does not move.

No important news has been received from the troubled East and the future and extent of the conflict are in much doubt. Crops in the Western States and in Europe are reported not far from the average, taking one region with another. Our own crop, while still deserving the adjective magnificent, does not seem to reach the highest estimates which were at times made, and, in view of the thorough clearance which was made of the old crop, does not promise to be at all excessive.

In thought of the holding of wheat which is now general among our growers, it will be of value to examine briefly the warrant which the action has in the records of the course of the English trade in wheat. We propose to compare the price which is now offered by the speculators with the average price which has prevailed in the English market for a term of years. For this purpose we refer to one of the latest English writers on political economy. Professor Cairnes, who has a wide reputation for most careful study and writing, in discussing the laws of value has occasion to introduce the price of wheat. From this authority we draw a general statement of the average price of this commodity.

Professor Cairnes says: "According to Adam Smith, the average price of wheat during the first 64 years of the 18th century ruled at about 28s the quarter, and this price would have been somewhat higher had not the period been marked by an unusual number of good harvests. In the last 64 years of the preceding century the price of wheat, according to the same authority, stood somewhat higher. Taking the whole 128 years, the average price of wheat probably might be taken as ruling between 30 and 35s per quarter. Its price in average years now would, I apprehend, stand at somewhere about 50s the quarter, and the difference is certainly not more than a reference to the diminished value of money would explain."

Thus it appears that the average price of wheat in England has been during recent years only so much greater than it was 200 years ago, as the reduced value of money will explain. We have then proof that the average price of the market can be ascertained with considerable certainty. Take this average price of late at 50s, as Professor Cairnes puts it, and see how it compares with the prices which are offered in this market to-day and the cable quotation from Liverpool. The Liverpool quotation is to-day (Wednesday), for average California, 9s 1d and 9s 4d per cental, or 43s 8d and 44s 10d per quarter. This it will be noticed is from 5s 2d to 6s 4d below the average price of 480 pounds of wheat.

It will be interesting to compare the average price in England with the price which is offered by the speculators in this market. They offer $1.50 per cental. The equivalent of 50 shillings per quarter is $1.75 per cental, after making the necessary allowance for brokerage at two and a half per cent., insurance at two and a half per cent., drayage, wharfage, etc., at $1 per ton, and counting freight at £3 per ton. In other words, the price which can be paid here for wheat to be laid down in Liverpool, at the average price which has prevailed there for the last 200 years, is $1 75 per cental.

In view of these facts it is not wonderful that our wheat growers are hesitating and resolutely refusing to part with their grain at the price which the speculators offer. The arrivals are light and consist of parcels which, for the most part, were bought some time ago to fill some of the great quantity of tonnage which is now coming in plentifully under charter. Since July 1st 11 wheat cargoes have cleared, carrying 339,289 centals. The whole shipment for the month of July last year was 281,054 centals. Although the speculator has started in thus briskly, it is believed that his ships are coming in faster than his wheat, and the same report of costly demurrage which we noted last week prevails. If, in the turn of affairs, he should be forced to concede a good point in order to get himself out of a trap which he laid for others, it would hardly be more than justice.

There can be but one way to look at attempts which aim to slip a noose around all the ships which are hither bound to carry our crops. It is an attempt to push farmers into a corner and interferes with the healthful course of trade. It is not right. It is an abuse which the better class of our merchants look upon with reproach, and all good citizens should frown down one who tries to fill his coffers by such unfair commercial transactions and in bulling and bearing the freight market to the paramount injury of the city and State. The country offers every able and honest merchant a bountiful reward for the service of their money and talents. If San Francisco will overcome the overreaching and unscrupulous speculators, better and brighter days may approach, with increased industry throughout the State from shore to mountain. These grasping schemers have given our city and State a bad name, which drives away Eastern capital and holds interest at ruinous rates. The wonderful natural resources of our State are but half known. The wealth of our valleys and mountains is dormant because many of our most active men have become contaminated with speculation, and the brightest talents are palsied by stock and ring gambling. It is for the interest of the State that these days should pass away and the time of healthy and legitimate trade should supplement honorable industry in working out the noble future of our land.

Cutworms.

We hear from several localities of the ravages of the cutworm. In some parts they are luxuriating in the gardens on vegetables, and in others they are cutting off the standing corn. The cutworm is an old and ruinous pest. At the East he is one of the commonest foes of the farmer; indeed, he has forced himself into the poetry of the farm, for we have heard the corn planters' song as follows:

"Two for the blackbird, two for the crow,
Two for the cutworm and four to grow."

As it is generally known, the cutworm is so called because of his method of carving off the stalk of the plants he attacks and making no use of it, thus wasting the whole substance. His natural history may not be as well known as his habits, and we shall give a few points of it as they are laid down by careful observers. The moth from which comes the cutworm is of dull gray or brown color, with two conspicuous spots on the fore wings. This moth may be seen late in the season hidden away in crevices around the house. They fly by night and attracted by the lights generally draw together about the house in large numbers.

It is believed that the moths, some time after pairing, deposit their eggs on a grass plot, for it is there that the caterpillars are found feeding upon the grass roots. When in this stage of growth the small cutworms do not attract attention. In the following spring and summer the worm is full grown and is over an inch in length, of a sober grey or brown color, and striped with light or dark. He is a greasy, repulsive looking grub and when full grown makes himself as hateful as he is ugly, by beginning his voracious attacks upon the corn and other crops. When the worm is complete in growth he envelopes himself in a cocoon made of earth, and lies a few inches beneath the surface of the ground until autumn, when the moth appears.

The cutworm is an insidious foe and difficult to overcome. Where his ravages are in the garden or in the small cornfield, there is no better way than to go along the rows in the early morning and dig around every cut stalk and crush the worm. He will be found near the cut stalk, just below the surface of the ground. To cope with the pest on a large scale, Prof. Cook, of the Michigan agricultural college, who has given the subject much attention, says there is no surer way to beat the worm than to court the friendship of the birds; if the infected land be plowed early in the fall and deeply harrowed, in regions where the bluebird, robin, and grackle are abundant, these birds will glean the field quite clean of the grubs.

There are numerous remedies proposed for the worm, but they have been proved for the most part quackery. Salt, plaster and commercial fertilizers have been advocated, but they are believed to be ineffective, except in the way of stimulating the crop to vigorous active growth, which is one of the best weapons of the plant against insect intrusion.

Valuable Wheat Tables.

We print on page 84 of this issue two tables of great value to the wheat grower, as they enable him to compare the Liverpool price of wheat and the rate of ocean freight on wheat for each month in the year for the last 10 years. We are not aware that this information exists in collected form except as we print it this week, and believe that this is the first compilation which has been made for the public benefit. For this valuable matter we are indebted to A. Montpellier, cashier of the Grangers' bank, who has prepared it at a considerable cost of time and labor, because the dates needful were scattered and difficult to obtain.

A KIND REMEMBRANCE.—We acknowledge a kind remembrance from James Lick, Esq., freighted with six boxes of fine fruit from his farm at San Jose. The cheer is refreshing and the remembrance encouraging to the workers on the PRESS. Mr. Lick is frequent in his kindnesses, and his compliments to the literary toilers of the PRESS extend over many years. For the information of some fruit packers it is interesting to note that Mr. Lick's fruit is of uniform quality from top to bottom of the box.

ON FILE.—"Grandma's Love Story," Lorainc; "Whom We Meet," J T.; "Notes from Los Angeles," J. W W.; "Home-Made Bellows," F. G.; Inquiries from "Sentinel," "Dairyman" and W. H. G.

THE amount in the River and Harbor bill for the improvement of Sacramento and Feather rivers is $15,000, not $75,000.

A Point in Wool.

We often hear of the immense amount of sand which is shipped across the continent in California wool. Sometimes computations are made showing the saving of freight which would be effected if this sand were to be returned to the plains whence it flies to the fleece, instead of carrying it 3,000 miles to be piled up around Eastern scouring establishments. The figures are startling and the conclusion that a great unnecessary expense is incurred is true.

In presenting the matter, it has been thrown in the face of the wool growers as an evil for which they are wholly responsible. It cannot be doubted that the wool growers could have it otherwise if they determined so to do. They could take particular and expensive care of the sheep, so as to reduce their opportunity to accumulate these tons of dirt which we read about. They could scour out the dirt before sending the wool to the market. But is there any inducement to do this? Let us see. It is a fundamental principle in political economy, and a dictate of the commonest sense that every element of additional care and labor which is put upon a product is an item which should be recognized in the final sale, and should bring the producer an increased reward. The work upon an article, as well as its material, rightly figure in its market price. Is this principle recognized in the wool market? We have no doubt it is in some cases, but not always, by any means.

We have a case in mind. A shepherd of Tulare county resolved last year that he would make an effort to send the spring clip of 1876 to market in the best possible condition. He took his sheep away from the sand plains to the mountains, at a cost of several hundred dollars, to escape the dust of the dry season. He constructed a movable corral when he returned to the plains, and moved his sheep from place to place, always keeping them on clean feed. This cost him both time and money. Before beginning on this treatment he had dipped his sheep with such care that they were absolutely free from scab at shearing time. The clip was of unusual length of staple and the sheep were so clean that they left the shearing floor with pelts as light and pure as we used to see in the best kept Eastern flocks. The truth of these statements will appear when we state that his average weight of fleece was only two and one-half pounds, when the year before it was nearly four. The warehouseman remarked when this wool came to him that he had never taken in a cleaner, brighter lot of wool. Now, how much did this man get in the market for the extra labor and expense which he had put upon his product? The wool was shipped to San Francisco and sold for 14 cents: the same price exactly as was paid to his neighbors for wool which they had taken no care of at all. Now it is plain that he not only lost all the money he had invested in improving his wool, but he lost all the money he might have had for the sand which he might have marketed. Instead of sending in a clip so light, because it was devoid of oil and sand, he might have had the same price for one-third more pounds. After this experience and talking with his neighbors about it, he was informed by one of them that he could make more money by selling dirty wool at nine cents a pound than he could clean at 14 cents.

Now these are facts, and they have occurred to some extent in many a man's experience who has practiced for clean wool. The fault is not with the producer. It must be with the buyer. This Tulare shepherd fully believes that his comparatively small consignment of wool was distributed around the city warehouse so as to give a better general appearance to the whole floor, and was sold in with a lot of inferior wool, thus helping to sell it all. Of course this is only conjecture, but the fact remains that he sent to market a wool of uncommon quality and received the same for it as his neighbors received for their dirt.

The quality of any product which is marketed depends to a great extent upon the buyer. If buyers would pay the same prices for unworked butter as for the perfectly made article, dairymen would not waste much time over the worker. If grain would bring as much before cleaning as when all the chaff and foul seed are removed, no grain grower would use a fan in his separator. It is the same in wool. Unless the buyer makes a sharp and decisive difference between clean wool and oil and sand, there will be no improvement in the quality of our wool, and there should not be, because it would be industry unrewarded, which is a wrong. If our city commission merchants do the same thing by lumping off the good and poor together they do a yet more grievous wrong because they are false to the trust placed in them by their patrons, and ruining the industry they live by, by cutting off its development and advancement. This is all wrong, and if continued will do more to degrade the quality of our wool than all the writing and talking in the State can do to improve it. The market must be the final test of the product, and if the market fails to assert its claims, and fails to reward extra efforts which producers may make to please it, the blame of poor products is lifted from the back of the producer. This is one point in the wool marketing of this State. There are others which we expect to allude to hereafter.

Queries and Replies.

Centennial Onions.

Editors Press:—I send you by express a specimen of Santa Barbara production: a bunch of Centennial onions—not that they have been growing a century, as their size would almost naturally suggest, but that they have grown this Centennial year from seed. The largest one when pulled weighed four pounds and measured 24½ inches in circumference; the other three weighed about eight pounds. There are many others in the same field that will weigh two pounds and upwards. The variety is known as "Giant White Italian Tripoli." They were grown on Mr. J. M. Short's ranch (near town,) by me.—Emil Berlin, Santa Barbara, Cal.

The onions are received and are true to the description which our correspondent gives. They are fit to rank beside the other immense California productions which are known the world over. We shall keep the specimens in our office for a few days, where any visitor can feast his eyes upon their proportions and inhale their sweet fragrance.

Freight Rates and Ostrich Growing

Editors Press:—Will you please inform me what the difference in freight on wheat is between San Francisco and Liverpool and New York and Liverpool. Do you know of any parties in California who make ostrich raising a success?—C. A. Sayre, Borden, Fresno Co.

The rate of freight for wheat from New York to Liverpool, quoted by telegraph July 23d, is £1 8s to £1 11s per ton. This is rather higher than the average rate. The rate at which charters can be obtained from this port to Liverpool is now in much doubt, but the latest reported rate is from £2 9s to £3.

We do not know of any success with ostrich growing in this State, and if there has been any, or any actual beginning of the enterprise, we shall be pleased to hear of it.

The Early Fruits.

Editors Press:—Will you or some horticultural reader of your excellent paper inform me through the columns of the Press at what date the following named fruits begin to arrive in the San Francisco market from Santa Clara, Putah creek, Old river and Napa, viz: Peaches, apricots, blackberries, strawberries, raspberries, cherries, currants and tomatoes. If a tabulated statement were published of the time at which the different varieties of fruit begin to come into market from the points where chiefly produced, those who contemplate planting would be greatly facilitated in making an intelligent selection of species and varieties, and thus be enabled to "fit in" their shipments so as to receive better prices than they otherwise would.—H. E. Hallett, Emmaton, Cal.

We quite agree with our querist that it would be of great advantage to have an accurate and comprehensive table printed, showing the points he mentions and others related to them. We trust that our fruit-growing readers in the different localities will aid us to gain the information by sending the dates of their early shipments.

With the assistance of some of our leading fruit dealers we submit the following brief notes on the matter, which are doubtless liable to correction in some respects:

Peaches—Grand island, June 10th to 20th; Putah creek and Vacaville, June 18th to July 1st; Old river, June 24th; Santa Clara and Napa, July 20th to 25th.

Apricots—Putah creek, June 6th; Old river, June 7th; Santa Clara and Napa, July 15th to 20th.

Blackberries—Putah creek, May 29th; Old river, June 10th to 15th; Santa Clara, June 22d; Petaluma, July 1st to 10th.

Strawberries—Santa Clara, May 25th to April 10th.

Raspberries—From the mountains, June 15th; Alameda county, June 25th to July 1st; Napa, June 20th.

Cherries—Vacaville, April 29th; Napa, May 13th; Alameda county, May 15th.

Currants—Alameda county, May 19th to May 25th.

Tomatoes—Putah creek, May 25th; Old river, June 27th.

Trees Not True to Name.

Editors Press:—I wish to inform you with regard to some trees which I purchased from Mr. Hough, of the Vacaville nursery, which I think should be made public. I sent him $5 and in return received five trees, as I supposed true to label. The sample I send you was taken from a tree which he sent me for the "Early Beatrice." I budded about 1,000 the following summer and sold most of them last winter for the Beatrice, as I supposed I was dealing with a reliable man, as he warranted all his trees true to label in your valuable paper. I have also seen parties from St. Helena, Napa county, who purchased from the same person, that have turned out the same as mine. Mr. E. M. York, of the nursery near St. Helena, and Mr. Wineburger have the same as sample inclosed, which they have been propagating for the Early Beatrice, and like myself have sold to others. Of course you can see at once the loss and disappointment that those mis-labeled trees have caused. On our part there has been no mistake, and to prevent the spread of a spurious article and to some extent exonerate ourselves, we would like if Mr. Hough would make some explanation and tell us the kind of peach he sent us, as it does not show any signs of ripening for some time.—Frank McDonald, Knight's valley, near Calistoga, Cal.

We have always considered Mr. Hough an upright man and we hope he will give a satisfactory answer to the above. We will gladly print his answer if sent to us. The samples sent us by Mr. McDonald show that there is an error somewhere, and for the good of growers it should be made clear.

A Washington special to a Chicago paper thinks Secretary Robeson will escape impeachment. Nothing will be done in the matter beyond presenting the evidence to the House and having it referred to the Judiciary Committee to report next session.

The weather has moderated greatly in New York, and the death rate has correspondingly decreased.

Fire Proof Buildings.

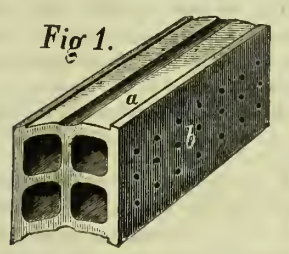
Jules Borie's Patent Hollow Bricks.

The innumerable cases of destruction by fire which desolate this country, and culminated a few years ago in the calamities of Chicago and Boston, seem to have made a lasting impression on the public of the East, and ought not to be overlooked by the people of the Pacific coast.

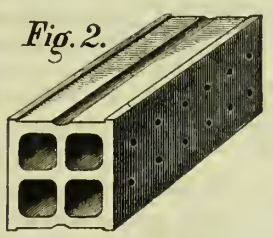
The movement towards fire-proof constructions began in Europe 25 years ago, and was promoted by the introduction to market of iron beams combined with Borie's hollow or, as they were called at that time, tubular bricks, which we purpose to describe in this article.

San Francisco and a few other cities are subject to fire limits, but in villages and in farm buildings there is no restriction placed upon the builder; however, it is to the interest of every property owner to guard against fire, inasmuch as there is no public fire fighting apparatus.

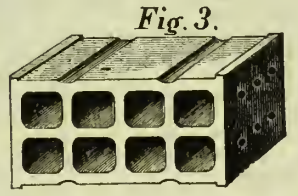
In regard to private residences, the people of California seem to entertain a preference for wood, which can be procured at low prices. Moreover, they contend that brick walls get damp during the long rainy season and are not as secure as could be wished against heavy earthquakes. For the cheapest class of houses, wood is undoubtedly, and will be for years to come, the main resource. For residences of a higher description, it is claimed hollow bricks will overcome easily the two latter objections.



Interlocking Partition Brick.



"Stretcher" Brick.



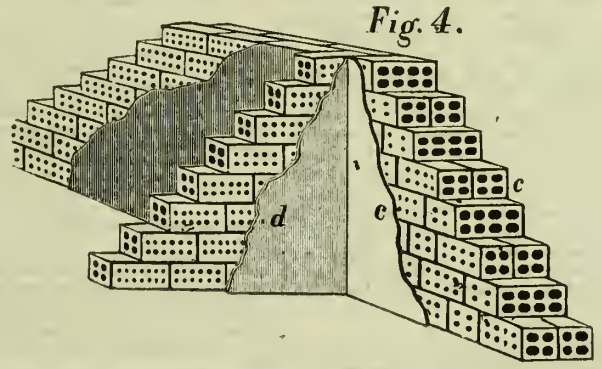
"Header" Brick.

It is not without some interest to briefly mention how a fire usually originates, and which are the parts of a building best situated to propagate it. Let us take as an instance a room surrounded by wooden partitions and furred brick walls. In case of arson, the criminal will generally accumulate some inflammable compound in under a closet, a bed, or in the corner of the room, impregnate it with oil and run away. In the case of mere accident: a defective chimney flue; a match in the hands of a child; a lamp which will explode or be left near some piece of light furniture, cotton garments, a curtain or the like; reading while in bed; a heavy spark flying on a carpet after the inmates have retired; these are about the most common causes. The fire is started. Some people might think that hot air having a tendency to ascend, the part of the room to be likely destroyed first will be the ceiling. This is a mistake. In a chimney flue, for instance, the heat decreases in a greater ratio than the distances of any given point to the fire place, and if a damper is applied to this flue, some idea may be formed of what will occur in the burning room. The non-combustible gases generated by the first blaze will gather under the ceiling, which operates in this case as a kind of damper. They will, for a while, keep down the tongues of the flames or, perhaps, owing to some admixture of air, will allow them to faintly leap and blacken the ceiling without doing it any serious injury. On the contrary, the temperature will be the highest in the lower parts of the room where the combustion is progressing, and, nine times out of ten, in close proximity if not in contact with one of the partitions or the main wall. After a certain time the non-combustible gases find an exit through a pane of window glass which the increasing heat has cracked. This gives a new impetus to the fire below. Then a patch of plaster falls from the place where the temperature has been the most intense. As soon as exposed, the laths, that perfect kindling wood, spread the flames more rapidly than ever. The whole room is in a blaze. The partitions and, last of all, the ceiling are consumed. Thus it will be seen that wooden partitions ought to be done away with wherever there is any regard for safety in buildings.

Hollow bricks made their appearance a quarter of a century ago. They were the invention of Borie Brothers, of Paris, and in a great measure helped improving the modes of building of that metropolis. However, they were far from being perfect. Their faces were too smooth, which caused the plaster to peel off, unless of first quality and worked with care. Their shape was too complicated, and required the best raw material, by which the selling price was kept comparatively high. Again, no provision was made for them to interlock one another and thereby form a well bound construction, which is the main point in such thin walls as partitions are. These defects have been obviated by Jules Borie, one of the original inventors, and the improved hollow bricks, for which a United States patent has been issued to him lately through the Mining and Scientific Patent Agency, will be found to answer all the requirements desired in this important matter, as will be seen by the accompanying engravings.

Fig. 1 is a brick especially intended for partition purposes in ordinary dwellings. It contains four longitudinal cavities. Its transverse section is four by four inches, and length eight and one-half inches, thus being nearly double the size of a common brick. For stores, warehouses and public buildings it is made larger. Of its abutting ends one is concave the other convex, so that they interlock with the next bricks of the same course. Both its laying faces, one of which is seen in *a*, are grooved; consequently the mortar operates as a key between all the courses of bricks. A small quantity of mortar enters also from the vertical joints into the cavities and forms a new key. The studdings of the doors are each provided with a vertical groove which leaves a small space between them and the bricks. This space the mortar penetrates, making a third key. As for the lateral surfaces of the brick, one of which is represented in *b*, they are perforated with a certain number of small holes which allow the plaster to go through the shell and clinch on its inner surface, thus giving the coating a perfect adherence to the brick. By these means the whole partition forms a compact strong body, which will defy a commotion as successfully as any well built outside wall.

Fig. 2 is also a partition brick, which only differs from the former by its ends being cut square instead of curved.



CONSTRUCTION OF PARTITION AND WALLS.

Fig. 3 shows a brick containing eight transversal cavities, and is what builders call a "beader," while the brick Fig. 2 is a "stretcher." By using both of them a wall of any thickness is built. When erecting the angles of walls of this kind, the bricklayer uses the few headers wanted for the purpose, with their cavities set vertically, instead of horizontally. He fills these cavities with sand within one half an inch or so of the top, and then applies the mortar as usual. By this method none of the cavities are exposed, and the angles hold firmer than when made of solid bricks.

Fig. 4 represents an eight and a half inch wall, *c*, *c*, and a four inch partition, *d*, both in progress at one time. Each course of the partition crosses joints with the corresponding course of the wall, thus giving the structure the utmost stability. On the exposed faces may be seen the small perforations intended to hold the plaster, a few patches of which are shown in the engraving.

The bricks are made of burnt clay, cement, plaster, or similar compounds. However, clay is the best and cheapest material. It is thoroughly worked and molded by a small machine, in which a high pressure is produced, which turns out these well shaped forms by thousands in a day.

Their weight is less by 55 to 60 per cent. than solid bricks of the same size would be. Consequently no large foundations are necessary for supporting the main walls, nor are heavy beams for bearing the partitions made of them, to say nothing of the safety which follows when lateral pressure has to be reduced, as, for instance, in vaults, arches, etc.

Their cavities keep the inside of the walls permanently ventilated and dry, which does away with the dangerous practice of furring and lathing.

Being bad conductors of heat, cold and noise, they make houses warmer in winter, cooler in summer; they are the healthiest building material yet found. On account of their difficulty of being penetrated by sound, places of worship, public halls, etc., reflect remarkably the voice of the speaker and the notes of music.

As regards their strength, their resistance to pressure has been so often tested, officially and otherwise, during the first few years of their introduction in Europe, that nobody there thinks of resorting to new experiments.

For further particulars apply to Jules Borie, civil engineer, postoffice box 633, Oakland, Cal., and Junction City, Kansas.

Important to Settlers.

The following important bills have lately passed Congress and are laws:

Concerning Settlers and Public Lands.

An act to amend "An act for the relief of certain settlers on the public lands," approved December 28th, 1874, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That all the rights and privileges granted by an act for the relief of certain settlers on the public lands, approved December 28th, 1874, are hereby extended for one year after the expiration of the time named in said act. And all the rights and privileges extended by this act to homestead and pre-emption settlers, shall apply to, and include, the settlers under an act entitled "an act to encourage the growth of timber on western prairies," approved March 3d, 1873, and the acts amendatory thereof.

Approved June 19th, 1876.

To Encourage the Growth of Timber.

An act to amend an act entitled "An act entitled 'An act to encourage the growth of timber on Western prairies,'" approved March 13th, 1874.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section three of the act entitled "An act to amend the act entitled 'An act to encourage the growth of timber on western prairies,'" is hereby amended by adding thereto the following further proviso: Provided further, That whenever a party holding a claim under the provisions of this act, or whenever making final proof under the same, shall prove by two good and credible witnesses that the trees planted and growing on said claim were destroyed by grasshoppers during any one or more years while holding said claim, said year or years in which said trees were so destroyed shall not work any forfeiture of any of the rights or privileges conferred by this act; and the time allowed by this act in which to plant the trees and make final proof shall be extended the same number of years as the trees planted on the said claim were destroyed in the manner specified in this section.

Sec. 2. That the planting of seeds, nuts, or cuttings shall be considered a compliance with the provisions of the timber-culture act. Provided, That such seeds, nuts, or cuttings of the kind and for the purpose contemplated in the original act shall be properly and well planted, the ground properly prepared and cultivated; and in case such seeds, nuts, or cuttings should not germinate and grow, or should be destroyed by the depredations of grasshoppers, or from other inevitable accident, that the ground shall be replanted or the vacancies filled within one year from first planting: Provided further, That parties claiming the benefit of the provisions of this act shall prove, by two good and credible witnesses, that the ground was properly prepared and planted in such seeds, nuts, or cuttings, and were so destroyed by inevitable accident in such year.

Sec. 3. That it shall not be necessary to plant trees, seeds, nuts, or cuttings in one body, provided the several bodies not exceeding four in number, planted by measurement, aggregate the amount required and in the time required by the original and amended act.

Approved May 20th, 1876.

American Lumber for England. — The *Northwestern Lumberman* says: The shipment of Michigan lumber to Europe is becoming quite popular this season. Mention has already been made of large purchases of deals for the Liverpool market, to be shipped from the mills by vessel via the lakes, Welland canal and the St. Lawrence. It now transpires that a new route is to be opened up, whereby the first stage of the distance is to be made by rail. Parties have been negotiating during the week past with mill men on the east shore of Lake Michigan for first, second and third quality stuff, to be shipped by rail to Jersey City, N. J., and thence re-shipped by vessel to England. A White Lake (Mich.) firm are already loading cars under contract with the parties who have opened the new route. Only the extremely low rate of rail transportation could admit of such a course.

The Senate has passed the bill for the completion of the Washington monument. It appropriates $100,000 to continue the work after the Washington society shall transfer to the United States all its rights and privileges, and provides that the work shall be under the direction of the President of the United States, the Supervising Architect of the Treasury and the Architect of the Capitol.

Insects and Plants.

In the Philadelphia papers we note full reports of a recent discussion before the Academy of Natural Sciences on the question of cross-fertilization by insect agency, between Mr. Thomas Meehan and Professor Asa Gray. Mr. Meehan remarked that there was no doubt that some plants have flowers which, so far as we at present know, are incapable of self-fertilization and are fertilized only by the agency of insects; but he differed from his friend as to the extent to which these facts prevail and in the interpretation of the facts. A large number of flowers are fertilized by their own pollen that are claimed as illustrations of the other view, and he did not know how far these errors had prevailed; and then he thought that the fact was potent that self-fertilizers had maintained their hold and fought their way through the world and through the ages as well as or better than those which exhibit what is claimed as a "horror of close breeding." Scrophularia had been so claimed; but *S. canina* was a fertilizer. The anthers were folded back in the corolla and one by one straightened out, carrying the anther to the apex of the pistil, where the pollen was ejected. The pollen was of a beautiful orange color, and it could be seen by the naked eye alone that none of the stigmas had pollen till they received it each from its own flower. Referring to the dandelion, he said the pistil grew through the mass of pollen, carrying a quantity with it. Reaching its maximum growth, the pistil curved, making a "pot-hook," then cleaving at the apex first on the upper side, spread its lobes out in finally opposite curved arms, its own pollen falling in at this first cleaving of the apex. Ox-eye daisy is a similar but still more easy way, self-fertilized. Independent of this, he urged that in many localities where sweet flowers were abundant winged insects did not visit these two flowers to any extent. In his vicinity, for instance, he had never seen any on these two species. He made the point that, even though one composite flower was fertilized by another in the same head, he thought that physiologically flowers side by side in a composite head were as much brother and sister as anything that could be brought up from higher life. The physiological value of such cross-fertilization, he thought, must be drawn to a very fine point. As regards the red clover, which is said to have such nice arrangements for cross-fertilization, even to the exclusion of the honey-bee and for the exclusive use of the humble bee. Mr. Meehan said the humble-bee did not enter the mouth at all, but collected the honey by slitting the tube from the outside. Professor Gray replied to Mr. Meehan that when he spoke of Scrophularia, in "How Plants Behave," he had reference to *S. nodosa;* and he described how he understood that species to act when in flower, and was sure, from that behavior, that that species could not fertilize itself. The facts pointed out by Mr. M. in *S. canina* were in some respects new to him; but he felt sure that a careful examination would show his friend to be wrong, and that it did not fertilize itself. In regard to dandelion, numerous insects visited it, near him; and, though he would not say it might not occasionally fertilize itself, he was sure it had to be in most cases fertilized from other flowers in order to seed. And he had no doubt that was true of ox-eye daisy also. Clover he said he had never examined critically himself, with a view to its bearing on these questions; but he would do so the coming summer.

Eucalyptus Leaves and Oil.—In the *Archiv der Pharmacie*, Dr. L. Homeyer has a paper on the leaves of the eucalyptus globulus and their etherial oil. The paper is, first, a description of a microscopical and micro-chemical examination of the leaves. Secondly, a chemical examination of their oil leads the writer to the conclusion that it is a mixture, containing: 1st, a terpene boiling from 150-151 deg.; 2d, another terpene boiling from 172 185 deg.; 3d, cymol; 4th, an oxidized substance which stands in a simple relation to cymol, and which has the formula $C^{10}H^{14}O$, or $C^{10}H^{16}O$, probably the latter. Dr. G. Vulpius has an essay in which the planting of this kind of trees is recommended, because the oil, having a tendency to produce ozone like turpentine, is thought to be conducive to health.

Rapid Growth of Forest Trees.—A correspondent of the Boston *Cultivator*, gives his experience in the growth of forest trees. Norway spruce and Scotch larch were planted, and in nine years the spruce trees were 15 feet high, with 12 feet spread of top. In 14 years the larch were 30 feet high, with a spread of 20 feet, and a circumference of four feet at the base. One larch was 40 feet high in 17 years. Silver maple trees planted in 1864, are now 35 feet high, and seven to ten inches in diameter at the base. Elms planted in 1856, now range from 30 to 40 feet high, and are 15 inches in diameter.

Cleaning Silk.—The following mode of cleaning silk garments has been successfully tested. The garment must first be ripped and dusted. Have a large flat board; over it spread an old sheet. Take half a cup ox gall, half a cup ammonia and half a pint tepid soft water. Sponge the silk with this on both sides, especially the soiled spots. Having finished sponging, roll it on a round stick like a broom handle, being careful not to have any wrinkles. Silk thus washed and thoroughly dried, needs no ironing and has a luster like new silk. Not only silk, but merino, barege, or any woolen goods, may thus be treated with the best results.

Weights and Measures.

Questions are always arising concerning various points in weights and measures, and we print the following scale, recognized by the laws of the United States, that our readers may preserve it for convenient reference.

Bushel.	Pounds.	Bushel.	Pounds.
Wheat	60	Blue Grass Seed	14
Shelled Corn	56	Buckwheat	52
Corn in the ear	70	Dried Peaches	33
Rye	56	Dried Apples	24
Oats	32	Onions	57
Barley	48	Salt	55
White Beans	60	Stone Coal	80
Irish Potatoes	60	Malt	38
Sweet Potatoes	55	Bran	20
Castor Beans	46	Plastering Hair	8
Clover Seed	60	Turnips	55
Timothy Seed	45	Unslacked Lime	30
Flax Seed	56	Cornmeal	48
Hemp Seed	44	Fine Salt	55
Millet Seed	50	Hungarian Grass Seed	54
Peas	60	Ground Peas	20

Peanuts, per bushel, African, 32 pounds; Tennessee, 28 pounds; Virginia, 22 pounds.

A box 24x16 inches, 22 inches deep, contains one barrel; 16x16¼ inches, eight inches deep, contains one bushel; 8x8½ inches, eight inches deep, contains one peck; 4x4 inches, four and a half inches deep, contains one-half peck; 4x4 inches, four-tenths of an inch deep, contains one quart.

The standard bushel of the United States contains 2,150 4 cubic inches. "The Imperial bushel" is about 68 cubic inches. Any box or measure, the contents of which are equal to 2,150.4 cubic inches, will hold a bushel of grain. In measuring fruit, vegetables, coal and other substances, one-fourth must be added. In other words, a peck measure five times even full makes one bushel. The usual practice is to heap the measure.

The standard adopted by the United States is the Winchester bushel, 18½ inches in diameter inside, eight inches deep, and contains 2,150 42-100 cubic inches. It is the legal bushel of each State, having no special statute bushel of its own. A half bushel measure should contain 1,075 21-100 cubic inches.

The United States standard gallon measures 231 cubic inches.

A barrel contains 40 gallons or 9,240 cubic inches.

Five yards wide by 968 long contains one acre; 10 yards wide by 484 long contains one acre; 20 yards wide by 242 long contains one acre; 40 yards wide by 121 long contains one acre; 60 feet wide by 726 long contains one acre; 110 feet wide by 396 long contains one acre; 220 feet wide by 198 long contains one acre.

Grape Refuse Vinegar.—Where grapes are made into wine, a fine article of vinegar can also be produced. Take the stalks of the grapes, and the skins and seeds, and let them heat in a vat or tub for four or five days; then to about every 30 pounds of the refuse, add four gallons of water, and stir it up well. Repeat this process three or four times a day for two days, then strain or squeeze out the liquor into a cask or tub, and dip a slice of bread into a teacupful of yeast, and add the whole to the liquor. Let it work until it ceases to hum, then cover the bung hole with a bit of wood, and let it remain until well soured, which will be in a few days, if the weather is warm. Then put it into a cool cellar, and if it looks a little muddy, mix a quarter of a pound of isinglass, with just enough cold water to cover it; let it stand ten minutes, and then turn over it a pint of boiling water, and let it boil until it is dissolved, and turn it into the vinegar. In a week or so it will be perfectly clear, and can be kept tightly bunged up.

How to Use a Grindstone.—1st. Don't waste the stone by running it in water, nor allow it to stand in water when not in use, as this will cause a soft place. 2d. Wet the stone by dropping water on it from a pot suspended above the stone, and stop off the water when not in use. 3d. Don't allow the stone to get out of order, but keep it perfectly round by the use of a piece of gas pipe or a hacker, or use a pair of the double hung stones, which keep each other in order. 4th. Clean off all greasy tools before sharpening, as grease or oil destroys the grit. 5th. Observe—When you get a stone that suits your purpose, send a sample of the grit to the dealer to select by; half an ounce sample is enough, and can be sent in a letter by mail.—*Iron Age.*

Ammonia in Rain.—About 4,590,000 cubic metres of rain fell over Paris in 29 days during the recent floods, and an examination of samples led to the estimate that 9,000 kilogrammes (2.2 pounds each) of ammonia were washed down with it, containing sufficient nitrogen for a forest that would cover the whole of Paris. The question has often been raised whence plants get their nitrogen, and the above figures help to explain it. The rain was also estimated to contain 88,000 kilogrammes of mineral substance, amongst them being globules of iron of meteoric origin.

Carbolic Acid Paper.—According to the *Engineer*, the carbolic paper which is now used in such quantities for packing fresh meats, etc., for the purpose of preserving them against deterioration by atmospheric or other influences, is made by melting five parts of stearine by gentle heat, and then stirring in thoroughly two parts of carbolic acid, after which five parts of paraffine in a melted form are added. The mass thus prepared is then to be well stirred together, until it cools, after which it is applied with a brush to the paper.

Contents of Pamphlet on Public Lands of California, U. S. Land Laws, Map of California and Nevada, Etc.

Map of California and Nevada; The Public Lands; The Land Districts; Table of Rainfall in California; Counties and Their Products; Statistics of the State at Large.

Instructions of the U. S. Land Commissioners.—Different Classes of Public Lands; How Lands may be Acquired; Fees of Land Office at Location; Agricultural College Scrip; Pre-emptions; Extending the Homestead Privilege; But One Homestead Allowed; Proof of Actual Settlement Necessary; Adjoining Farm Homesteads; Lands for Soldiers and Sailors; Lands for Indians; Fees of Land Office and Commissions; Laws to promote Timber Culture; Concerning Appeals; Returns of the Register and Receiver; Concerning Mining Claims; Second Pre-emption Benefit.

Abstract from the U. S. Statutes.—The Law Concerning Pre-emption; Concerning Homesteads; Amendatory Act Concerning Timber; Miscellaneous Provisions; Additional Surveys of Land for Pre-emption; List of California Post Offices.

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American Manures, or Farmers' and Planters' Guide.—Comprises a description of the elements and composition of plants and soils; the theory and practice of composting; the value of stable manure and waste products, etc. Also, a chemical analysis of the principal manufactured fertilizers—their assumed and real value—and a full expose of the frauds practised upon purchasers. By Wm. H. Brnckner, Ph. D., Phila. Sold at this office. Price, $1.75; post paid.

The Threshers' Guide, by D. W. Hollihan, a practical operator with threshing machinery in California and other States. A book of useful and friendly hints to the grain growers, machine owners and threshing superintendents and workmen. Published at the Rural Press office, in 1872. Price, $1; in limp cloth binding, 75 cents; postage paid.

Now's the Time.—Everybody interested in mining and agriculture should subscribe for the Centennial year for either the Rural or the Scientific Press, published by Dewey & Co., San Francisco. They are the best journals of the kind in this country, and deserve the support of all those whose cause they espouse. Everything of interest connected with the Centennial, appropriate for these papers, will be collated. Send in your names.—*Mountain Messenger.*

Our Poultry Department.—We are in receipt of frequent letters expressing admiration of our Poultry Department. Mrs. Stoddard writes: "I look for Mr. Eyre's articles the first thing." Mrs. Pike says: "They are just what we want, common sense, plain and to the point." A. P. Smith writes: "I shall not take the *Poultry Bulletin* another year, as I get more information in regard to management of poultry from Mr. Eyre's writings in the Rural Press, which I shall keep for reference." We are glad to know that our readers find our Poultry Department so valuable.

Reaper and Binder.—Cornelius Mohr, of Mt. Eden, is using Lock's self binder in his grain field. It cuts from 10 to 14 acres of grain per day, and binds all the bundles with wire, as fast as cut, and deposits them along side of the reaper as it moves forward. It sweeps everything clean, and needs no rake to follow its course. Mr. Mohr is cutting 700 or 800 acres, and is highly pleased with the way it works. Frank Bros. & Co., of S. F., are agents for this machine.—*Washington Independent.*

Farmers, send to May Bros., Galesburg, Ill., for descriptive circular of their new improved, heavy, steel-vane Windmill, and of their "Combined Mill." Warranted first-class mills. Wholesale price of nine-foot wheel, $30 on cars. One month trial given. Any carpenter (with the printed directions) can put the mill up right in one day. Farmer agents wanted.

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Be More Particular.—We can only make the changes requested by the following parties on our mail list, when they, or some one else, send us their P. O. address. Otherwise we would have to look over from 7,000 to 10,000 names. Frank Becker, O. Seawell, L. Boyer, M. Levis, F. Anson, and Antonia Byros.
We also want the address of Wm. Buck.

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Statement, December 31st, 1875.

TOTAL RISKS WRITTEN	$31,845,189.00
TOTAL PREMIUMS	79,301.72
LOSSES PAID	821.00
ASSETS DEC. 31st, 1875	170,007.41

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PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.)

FOR WEEK ENDING JULY 18TH, 1876.

Hampton Kelley, Multnomah, Ogn., fruit drier; James McAllister, Gold Hill, Nev.. casting car wheels; Benj. F. Penniman, S. F., purifying and amalgamating gold and silver bearing sand, etc.

REISSUES.

John S. Hall, S. F., ass'or. to John L. Boone, short thread sewing machines; Rodmond Gibbons, S. F., adjustable elastic straps for garments.

Notices of Recent Patents.

Among the patents recently obtained through Dewey & Co.'s SCIENTIFIC PRESS American and Foreign Patent Agency the following are worthy of mention:

ALLOY FOR ANTI-FRICTION METAL.—Isaac Schoenberg, S. F. This alloy is more especially valuable for journal boxes, especially upon railway carriages and wherever there is a great amount of wear. These boxes are usually made from brass or some alloy forming yellow metal, and must be turned to fit the journal in order to be serviceable. They easily become heated if they fit too tight and they should not be wide enough sidewise to become crooked and split open. The improved alloy is formed into a box by pouring it around a shaft or journal which is properly luted into the outer iron box. No finishing is necessary, as the journal will gradually wear itself into perfect contact, but this wear takes place slowly, and the journal may travel over 3,000 miles of railway without the box being ground to a perfect bearing. This, however, is not prejudicial, as the metal seems to unite all the valuable qualities of anti-friction without being so hard as to cut or wear the journal. It is also tough, and if the journal should happen to bear upon the sides instead of the bottom, there will be no danger of the box becoming split open. This peculiar alloy is made of copper, tin and zinc, in certain stated proportions.

HINGE.—A. S. Buffington, Cambria, San Luis Obispo county. This inventor supplies what he calls a self-lubricating butt or hinge. The improvement consists in the employment of a metallic washer between the knuckles which comprise the joints of butts and hinges. The washer can be made of brass, copper, zinc or other soft metal that will not oxidize or rust, and adhere to the iron or steel knuckles, and the wearing of which will serve as a lubricator to prevent the joints from becoming stiff and squeaking. This improvement is more especially useful for strap hinges, such as are used on butter boxes. These hinges are exposed to wet and corrosion by contact with the salt employed in the butter, and soon wear out and break off by reason of this corrosion, and if one hinge becomes broken the box will almost certainly be destroyed before it reaches its destination. The inventor thinks that this construction will prevent, in a great measure, the breaking of the hinges by corrosion in the manner described.

ADJUSTABLE WATCH KEY.—Henry Bequelin, San Francisco. This invention is an improvement on that class of watch keys which are made to be adjusted to fit any sized post. It consists in the formation of two flat plates which are riveted together to form the thumb piece or handle. The stem is formed by a continuation of these two pieces drawn down to the proper shape, and the socket is formed one-half in each part of the post. The stem is made in the form of a double frustrum of a cone, and a sliding ring is fitted to the part of the cone nearest the handle. By sliding the ring back the parts of the stem are allowed to open, and they are closed by moving it forward. A groove is turned around the ring to receive a loose ring, by which to attach the key to a chain or key ring.

TAP FOR FAUCETS.—Amos C. Springer, San Francisco. This invention relates to a novel construction for a tap for barrels and other containing vessels, and it consists of a socket which is screwed into the barrel permanently, and has a screw valve which can only be opened by the faucet after the latter reaches its seat, and this valve must always be closed before the faucet can be removed, thus preventing all opportunity for leakage.

CLAMPS FOR BOOTS AND SHOES.—Wm. Bryhouse, Boise City, Idaho. The lever lasting clamp is an improved mechanism for lasting boots and shoes, and comprises a means for holding a boot in position, while the edge of the leather is seized by pincers operating in a novel manner, and drawn into place by means of a peculiar and powerful lever, which is mounted upon a fulcrum with a screw adjustment.

Statement Showing Monthly Prices and Averages per Cental of California Wheat in Liverpool Market for the Last Ten Years.

[Compiled by A. MONTPELLIER, Cashier Grangers' Bank of California.—Copyright Secured.]

MONTH.		1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	Monthly Average in Sterling.	Monthly Av'rage in Dls & Cts.
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	
JANUARY	Highest.	11 2	16 0	14 0	9 9	12 2	13 0	12 10	14 0	10 0	10 7		
	Lowest.	10 6	15 10	11 6	9 1	11 7	12 4	12 5	13 7	9 5	10 2	11 10	$ 2 90
	Average.	10 10	15 11	11 9	9 5	11 10½	12 8	12 7½	13 9½	9 8½	10 .4½		
FEBRUARY	Highest.	10 8	16 2	11 6	9 2	12 2	12 6	12 4	13 6	9 5	10 4		
	Lowest.	10 4	15 6	10 9	8 10	11 8	12 4	11 9	12 7	9 0	10 1	11 6	2 80
	Average.	10 6	15 10	11 1½	9 0	11 11	12 5	12 0½	13 0½	9 2½	10 2½		
MARCH	Highest.	11 5	16 0	11 0	9 6	12 0	12 3	12 0	12 7	9 5	10 10		
	Lowest.	10 7	15 10	9 10	9 1	11 10	11 6	11 7	12 0	9 1	9 10	11 5	2 78
	Average.	11 0	15 11	10 5	9 3½	11 11	11 10½	11 9½	12 3½	9 3	10 4		
APRIL	Highest.	12 2	16 2	9 4	9 4	12 8	12 4	11 11	12 11	9 5	10 8		
	Lowest.	11 8	15 10	9 1	9 0	12 0	11 8	11 7	12 4	9 0	9 6	11 1	2 72
	Average.	11 11	16 0	9 2½	9 2	12 3	12 0	11 9	12 7½	9 2½	10 1		
MAY	Highest.	11 10	16 2	9 7	9 11	12 6	13 0	12 4	12 10	9 1	9 9		
	Lowest.	10 2	14 3	9 3	9 5	12 0	12 8	11 10	12 6	9 0	9 6	11 4	2 77
	Average.	11 0	15 2½	9 5	9 8	12 3	12 10	12 1	12 8	9 0½	9 7½		
JUNE	Highest.	11 4	14 3	10 3	10 11	12 3	13 0	12 4	12 10	9 2	10 9		
	Lowest.	10 3	13 6	9 6	9 11	11 8	12 8	11 11	12 5	8 9	9 8	11 4	2 77
	Average.	10 9½	13 10½	9 10½	10 5	11 11½	12 10	12 1½	12 7½	8 11½	10 2½		
JULY	Highest.	10 8	13 3	10 8	12 3	11 9	12 6	12 0	12 4	11 0	9 9		
	Lowest.	10 2	12 6	9 7	10 3	11 4	11 10	11 9	11 2	9 7	9 1	11 2	2 73
	Average.	10 5	12 10½	10 1½	11 3	11 6½	12 2	11 10½	11 9	10 3½	9 5		
AUGUST	Highest.	11 1	12 10	11 4	11 6	12 0	12 5	12 8	11 4	11 11	....		
	Lowest.	10 8	12 0	10 8	10 5	11 7	11 8	11 9	10 1	10 9	.....	11 6	2 81
	Average.	10 10½	12 5	11 0	11 0	11 9½	12 0½	12 2½	10 8½	11 4	.....		
SEPTEMBER	Highest.	14 1	13 0	11 4	10 6	12 11	13 6	13 1	10 6	11 4	.....		
	Lowest.	13 2	12 10	10 8	9 9	11 11	12 8	12 7	10 0	10 9	.....	11 11	2 90
	Average.	13 7½	12 11	11 0	10 1½	12 5	13 1	12 10	10 3	11 0½	.....		
OCTOBER	Highest.	17 0	12 7	10 8	11 2	13 2	13 4	12 10	10 2	11 3	.....		
	Lowest.	14 6	12 7	10 4	9 11	13 0	12 8	12 5	9 9	11 2	.....	12 1	2 95
	Average.	15 9	12 7	10 6	10 6½	13 1	13 0	12 7½	9 11½	11 2½	.....		
NOVEMBER	Highest.	17 0	12 7	10 6	11 7	13 0	12 9	13 5	9 9	11 0	.....		
	Lowest.	15 6	12 1	9 5	10 10	12 10	12 6	12 10	9 9	10 11	.....	12 1	2 95
	Average.	16 3	12 4	9 11½	11 2½	12 11	12 7½	13 1½	9 9	10 11½	.....		
DECEMBER	Highest.	15 6	12 4	9 11	11 7	12 9	12 8	13 9	10 2	12 0	.....		
	Lowest.	15 2	12 0	9 6	11 4	12 6	12 4	13 4	10 1	10 8	.....	12 0	2 94
	Average.	15 4	12 2	9 8½	11 5½	12 7½	12 6	13 6½	10 1½	11 4	.....		
Average per year in Shillings & Pence		12 4½	13 9½	10 4	10 2½	12 2½	12 4	12 11	11 7½	10 1½	10 0	11 2	.....
Average per year in Dollars & Cents..		$3 02	$3 36	$2 53	$2 48	$2 97	$3 02	$3 15	$2 84	$2 68	$2 44	$2 83	.....

Statement Showing the Monthly Average of Grain Freight from San Francisco to Liverpool for the Last Ten Years.

[Compiled by A. MONTPELLIER, Cashier Grangers' Bank of California.—Copyright Secured.]

MONTH.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	Monthly Average in Sterling.	Monthly Average in Dls. & Cts.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
January	3 7 6	2 10 0	2 12 6	2 8 6	2 0 0	2 14 6	4 0 0	4 0 0	2 17 6	2 5 0	2 17 4	$ 14 04
February	3 12 6	2 7 6	2 12 6	2 5 0	2 0 0	2 10 0	4 2 6	4 1 0	2 7 6	2 2 6	2 16 2	$ 13 77
March	3 5 0	2 7 6	2 5 0	2 2 8	2 2 6	2 12 5	4 0 0	3 15 0	2 2 6	2 5 0	2 13 10	$ 13 19
April	2 12 6	2 10 0	2 5 0	2 2 6	2 2 6	2 13 6	3 17 6	3 12 6	2 0 0	2 10 0	2 11 8	$ 12 61
May	2 10 0	2 17 6	2 7 6	2 5 0	Onr's A'ct.	3 5 0	3 18 6	3 15 0	2 2 6	2 15 6	2 15 6	$ 13 60
June	2 10 0	Onr's Ac't.	2 10 0	2 17 6	Onr's Ac't.	3 16 0	4 10 0	3 18 0	2 7 6	3 6 0	3 4 5	$ 15 77
July	2 17 6	3 5 0	2 12 6	3 2 6	2 7 8	4 1 6	4 15 6	3 18 0	2 4 6	3	3 4 11	$ 15 90
August	3 7 6	3 6 6	3 2 6	2 17 8	2 1 6	3 12 6	3 17 6	3 12 8	2 5 6	.....	3 2 7	$ 15 33
September	3 2 6	3 4 0	3 11 6	2 10 0	2 0 0	3 18 5	3 2 6	3 5 6	2 10 0	.....	3 0 6	$ 14 81
October	3 0 6	3 0 0	3 4 6	2 7 6	2 0 0	4 6 6	3 6 6	2 15 6	2 11 6	.....	2 19 2	$ 14 48
November	3 8 0	2 17 6	3 2 6	2 5 0	2 0 0	4 5 0	3 2 6	2 15 0	2 13 6	.....	2 18 6	$ 14 34
December	2 7 6	2 12 6	2 10 0	2 5 0	2 5 6	4 2 6	3 7 6	3 0 0	2 11 6	.....	2 15 8	$ 13 63
Yearly average in pounds....	2 19 10	2 16 0	2 14 5	2 0 8½	2 1 6	3 9 6	3 16 8½	3 10 8	2 7 0	2 10 8	2 16 8	.....
Yearly average in dollars....	$ 14 66	$ 13 71	$ 13 38	$ 9 75	$ 10 16	$ 17 10	$ 18 62	$ 17 30	$ 11 30	$ 12 40	$ 13 87	.....

Thistle Law.

An act to prevent the propagation of the Scotch or Canada thistle in the counties of Humboldt, Siskiyou, Klamath, Del Norte and Alameda. (Approved March 2d, 1872)

Sec. 1. It shall be unlawful for any person owning or possessing land in the counties of Humboldt, Siskiyou, Klamath, Del Norte and Alameda to permit the Scotch or Canada thistle to mature and disseminate its seed on land so owned or possessed by such persons.

Sec. 2. It shall be unlawful for any person to knowingly sow or disseminate any seed of the Scotch or Canada thistle upon any land owned or possessed by another.

Misdemeanor.

Sec. 3. Any person, upon being duly convicted of a violation of either of the preceding sections of this act, shall be deemed guilty of a misdemeanor, and may be fined in any sum not exceeding $100, or by imprisonment in the county jail for a term not exceeding three months.

Damages.

Sec. 4. Any person who shall sell, or in any way dispose of any seed of the Scotch or Canada thistle to another, whether in the packing of goods or in grain, or grass seeds, or otherwise, shall be liable to such person for all damages which may accrue to him by reason thereof, to be recovered by action in any court of competent jurisdiction.

Road Overseer Liable.

Sec. 5. Any road overseer in the counties of Humboldt, Siskiyou, Klamath, Del Norte and Alameda who shall permit any seed of the Scotch or Canada thistle to mature within the boundary of any highway within his district, shall be deemed guilty of a misdemeanor, and upon conviction thereof may be fined in any sum not exceeding $100. All fines collected under this act shall be paid into the county treasury for the benefit of the common school fund.

Sec. 6. The provisions of this act shall apply only to the counties of Humboldt, Siskiyou, Klamath, Del Norte and Alameda.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

The Brandy Bill.

A dispatch from Washington says: The Fruit-Brandy bill passed by the House to-day is the measure which was reported last Monday, with the statement that it had been prepared by the Internal Revenue Department, and was unanimously approved by the Ways and Means Committee. It contains no provision for any reduction of the present tax on grape brandy, and differs from the California Vinicultural Association bill in many other respects. It provides that every distiller of brandy from grapes, upon rendering his monthly statement of materials used and spirits produced, shall immediately pay the tax on said spirits or give his bond in duplicate, with one or more sureties, satisfactory to the Internal Revenue Collector of the district, that he will pay the tax within three years, and before the removal of the spirits from the place of production, or shall previously prove that said brandy has been delivered to a bonded warehouse hereafter provided for. The tax is to remain a first lien, not only on the spirits, but upon the entire distillery property, including all houses, vineyards, land and fixtures, until paid. The Commissioners of Internal Revenue may establish bonded warehouses at any port of entry wherever grape brandy may be stored and held without payment of tax, during a period not exceeding three years from the date of its production. The bill provides for extending the existing law relative to the exportation of distilled spirits so as to permit the exportation of grape brandy free of tax in original casks of not less than 20 gallons, and to allow the privilege of drawback on the tax paid on brandy when exported in quantities of not less than 100 gallons. The bill also contains numerous provisions regarding special stamps, collectors' charge for affixing them, penalties against fraud, and many other details. The Internal Revenue Department gave its indispensable co-operation and advice in this matter, upon the urgent solicitation of Senator Booth and Representatives Page, Piper and Luttrell, who called individually upon Commissioner Pratt to urge this action. Representative Wigginton also effectively assisted in procuring the passage of the bill. It now goes to the Senate, where its passage is hardly possible during the small remaining fragment of this session; but Sargent and Booth will work together to that end.

General News Items.

THERE are 88 miles of good street sewers in San Francisco.

A GENERAL reduction of wages is imminent in Glasgow.

THE Sultan of Turkey is suffering from delirium tremens.

ACCORDING to the dispatches the atrocities in Bulgaria still continue.

THE Frear stone works in this city were destroyed by fire on Sunday.

DISPATCHES received state that General Canal has been elected President of Hayti.

FORTY of the crew of the *Thunderer* were killed by the recent explosion, or have died from the effects of it.

THE fast mail train between New York and the West was discontinued on the 22d, the House having reduced the appropriations for the postal service so greatly that it could not be maintained.

THE yacht *Mohawk* was capsized by a squall in New York harbor on the 19th inst., and Commodore Garner, of the New York yacht club, together with his wife, Miss Adele Hunter, Frost Thorne and the cabin boy were drowned. The accident is attributed to the carelessness of Captain Rawlings, the sailing master.

INFORMATION is wanted at this office of Mr. J. M. McArthur, who was last heard from June 29th, at San Bernardino. Said he was bound for Panamint.

WORTHY OF NOTICE.—The "Enterprise" *Perkins' Patent* Windmills (advertised in our columns), so long and well known on this coast, is now being supplied to this trade by Messrs. Horton & Kennedy, main office, Livermore, Alameda Co., Cal., where they receive supplies by carloads, and ship to all points at lowest rate of transportation. They will give prompt attention to all orders and enquiries. Mr. Horton is well known to the people here as a safe and reliable business man, and as Mr. Kennedy, late Secretary of the manufacturers, comes direct from the factory in Illinois to give this branch of the business especial attention, we have no doubt that all who favor them will be justly dealt with.

COUNTRY CARPENTER WORK.—By an advertisement in this week's PRESS, Fred Wolff, carpenter and builder, 344 Fulton street, S. F., announces himself ready to do carpenter work in the country. He has had wide experience in this class of building. He has a reputation for good workmanship.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Wednesday, July 26th, 1876.

There has been rather less than the usual fluctuation in market prices for produce during the week. The trade in most commodities has been dull. In Wheat there have been 11 cargoes dispatched so far this month, and including these there are 34 cargoes on the way. There are great quantities of Wheat going into the storehouses in the interior.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	CAL. AVERAGE.	CLUB.
Thursday	9s 3d@ 9s 6d	9s 6d@10s —
Friday	9s 3d@ 9s 6d	9s 6d@ 9s 10d
Saturday	9s 1d@ 9s 4d	9s 4d@ 9s 10d
Monday	9s 1d@ 9s 4d	9s 4d@ 9s 10d
Tuesday	9s 1d@ 9s 4d	9s 4d@ 9s 10d
Wednesday	9s 1d@ 9s 4d	9s 4d@ 9s 10d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	11s 5d@11s 8d	11s 10d@12s 4d
1875	10s 2d@10s 7d	10s 6d@11s 2d
1876	9s 1d@ 9s 4d	9s 4d@ 9s 10d

The Foreign Review.

The telegraphed review from the *Mark Lane Express* of July 25th says: The prospect of a good crop now seems certain of fulfillment. Hay has been gathered in excellent condition, though it is not quite so plentiful as it would have been with a more favorable spring. Root crops are now suffering for rain. The French and German Wheat crops are satisfactory both in quantity and quality. Local trade exhibits a continued depression, and Wheat declined one shilling per quarter, and will probably be lower. Floating cargoes shared the general depression, and declined 1s@1s 6d, but the number offering has been steadily reduced. Current low rates must check the shipments.

East India Wheat

Mr. H. Kains-Jackson, the well known English authority on Wheat, has written another article on East India Wheat. He remarks: "The new source of Grain supply in East India is brought prominently under notice by the contract in one bottom for a large cargo of Wheat, 1,400 tons, the first ever dispatched to this kingdom. This freight comes via the Cape of Good Hope, but the number of port Wheat cargoes arrived and under contract via the canal is a matter for attention. It may be said, indeed, that the British conquest of India was incomplete until the Suez canal opened the empire to British navigation and commerce. The new route also promises to give Southern France a new branch of trade, in supplying Marseilles, as a port of call, with the produce of British India. It is believed that upwards of 50,000 quarters of Indian Wheat has already been bought for Marseilles, which is thus relieved from entire dependence on Southern Russia and Turkey. A project of a ship canal from the Mediterranean to Bordeaux, to serve for vessels that have passed the Suez canal, is now submitted; such a work would save 700 miles of the English voyage, supply Wheat to that portion of France where it is required, and draw off floods, such as destroyed much of last year's harvest in the Garonne valley. The Indian northwest provinces have their harvest in February and March, and this year the first bill of lading was out by the 10th of April, and the cargo actually arrived last week. The date of these Indian supplies is about as important as their price and quality; arriving in the early summer, with Australian, they cannot fail to have an important bearing on the British market, as a counterpoise to Russian and American demands. As to price, all Corn is now regarded as a product of rent, farm capital and labor, the latter more and more becoming a chief item. And it is exactly on account of the lowness of Indian wages that Indian Wheat must always compete in cheapness with the product of dear European and American labor."

The Oregon Crop.

The *Oregonian* of July 22d says: The latest advices from the interior of this State indicate that the Wheat surplus the coming harvest will be about as large as last year, with the usual chances for fair weather from now until the crop is saved. This will give about 125,000 tons for export, though some good judges claim that the quantity will be 10,000 to 15,000 tons larger, including the Walla Walla valley in W. T. There is believed now to be 8,000 tons of the old crop on hand, of which but very little will be shipped before the new is harvested. This would give a total for export in Oregon next year of 135,000 or 140,000 tons.

Freights and Charters.

The question of charters is still in much doubt. The rates quoted are nominal and not based upon any transactions. The *Post* says: Spot engagements of Wheat carrying tonnage have been inactive and quiet during the week. The heavy decline in the English Wheat market has caused buyers to withdraw for the moment and vessels are consequently neglected. The list of disengaged tonnage in port is comparatively light—only 15,853 tons—but there are many vessels in the harbor under the head of "engaged" for which re-charters are eagerly sought. At the present writing rates to the United Kingdom are weak, nominal and difficult to quote. One of our cotemporaries names £3@£3 5s as the ruling prices, another thinks that £3 could not be obtained, while a third is quite positive that £2 15s would be accepted. We simply confine ourselves to stating that the market is by no means strong and bodes no good to those who chartered the bulk of the tonnage to arrive. Outside business has been without feature of interest. We have now in port 45,539 tons of engaged Wheat tonnage and 9,306 tons of miscellaneous tonnage. The engagements of the week have been as follows: Br ship *City of Vienna*, 999, Wheat to Liverpool, Havre or Antwerp, prior to arrival, private; Italian bk *Barbara Preve*, 710, Wheat to Cork for orders, U. K. or Continent, prior to arrival, private; bk *Wallace*, 638, Wheat to Cork, U. K., £3 2s 6d.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

ARTICLES.	WEEK JULY 5.	WEEK JULY 12	WEEK JULY 19.	WEEK JULY 26.
Flour, quarter sacks	16,649	71,776	26,202	30,811
Wheat, centals	123,231	110,567	243,447	227,663
Barley, centals	14,741	22,743	32,267	27,767
Beans, sacks	670	2,136	1,150	1,093
Corn, centals	398	1,040	3 406	1,482
Oats, centals	762	5,740	2,706	3,945
Potatoes, sacks	6,458	11,429	17,357	16,248
Onions, sacks	603	846	770	1,182
Wool, bales	974	2,919	2,312	2,468
Hops, bales	45	117	93	4
Hay, bales	762	1,779	2,545	2,226

Bags—Bags are weak and quotable one-half cent lower for Standard Wheat. The signs of the break of the ring continue.

Barley—Barley is unchanged in disposition and price. We note sales during the week as follows: 200 sks new Feed at $1; 400 do at $1; 300 do choice old Brewing at $1.30, half silver for all lots; 300 sks coast Feed, $1 per ctl, silver; 650 do good old Bay Brewing, $1.25, half silver; 500 sks new Feed, $1 per ctl, silver; 2,400 ctls choice old Bay Brewing, $1.30, half silver; 1,100 sks Bay Feed, $1; 250 do old Bay Brewing, $1.25, both half silver; 300 sks fair Feed, $1, silver; 1,000 do good do, $1, half silver; 325 do Coast Chevalier, $1 per ctl, silver; 200 sks good Feed, 97½c, half silver.

Beans—We note no change in prices. There has been a sale of 100 sks good Navy Beans at $1.70, half silver.

Corn—Corn is firm at a slight advance from last week's figures. Sales of 300 sks large Yellow at $1.22½, all silver.

Dairy Produce—Butter is improving. The supply of Fresh Roll is light, and there is an occasional sale at 35c.

Eggs—Eggs are in larger supply and weaker, though prices to-day are unchanged.

Feed—Prices are maintained. We note sales of Hay as follows: 30 tons ordinary Stable at $9; 20 do good Barley, $9.50; 46 do Stock, $8.50; 22 do good Wheat, $12.50; 27 tons Barley, $8.75; 63 tons good Wheat, $12.50; 23 do do, $12.50; 40 do good, $12; 47 tons fair Oat, $11; 28 do fair Volunteer Wheat and Oat, $11; 20 do choice Oat, $12.75; 40 do choice Wheat, $13; 35 do Livery, $10.50; 30 do choice Wheat, $14; 40 tons poor Oat, $9; 31 do Stock, $9; 22 do Clover and Oat, $10; 35 do do, $10.50.

Fruit—In the Fruit market we note a greater abundance of Early Crawford and Tillotson Peaches, and a corresponding reduction in prices. California Cherries are out of market, and the few now offering come from Oregon. Apricots are less plentiful and dearer. Strawberries and Pinms are cheaper. German Prunes are again in market, retailing at 15c. A few Bartlett Pears have been received, but are still too green for the trade. Apples are plentiful at 75c@$1.50 per box, delivered.

Fish—Fish are unchanged.

Hops—The receipts for the week have been only four bales. We hear of no change in price. Emmet Wells reports the New York trade for the week ending July 14th as follows:

"Trade has been very quiet this week. Aside from the shipment of some 800 bales to London, nothing has been doing. The consumption of lager during the heated term of the last three weeks has been tremendous, yet we do not hear that any of the brewers are running short of supplies. Home crop reports this week are of the most encouraging nature. Our advices from England and Germany on the other hand are anything but favorable; and, judging from present appearances, we are likely to be called upon for all the good Hops we can spare for export next season. There is everything to warrant much better prices this year than last, for the reason that now both the English and German crops are threatened, while last year, this time, the English crop alone was suffering, and Germany was all right."

Oats—Oats are in large supply and cheaper. We note sales: 900 sks good Feed, $1.55, half silver; 250 do poor, $1.27½, silver; 400 sks fair Feed, $1.40, half silver; 200 sks old Feed, $1.70, half silver; 600 do new do, new do, $1.55; 500 sks new Egyptian, to a miller, $1.90, half silver.

Onions—Yellow have sold at an advance. Reds are lower than last week.

Potatoes—Receipts of Potatoes have been excessive and prices have shown a marked decline, as shown in our tables.

Provisions—Prices are generally unchanged from last week.

Poultry—Poultry is dearer again, as may be seen below.

Rye—Rye is cheaper, although some sales have been at full rates. We note sales: 300 sks at $1.75, silver; 37 do, $1.75, half silver; 400 do choice, $1.85, half silver.

Vegetables—Vegetables have fluctuated within narrow limits, as shown in our tables.

Wheat—The trade is comparatively light, owing to the prevailing indisposition to sell. We note sales: 1,000 ctls, mixed with Barley, sold at the low price of $1.35 per ctl, and 3,000 do choice old Milling, at $1.67½; 1,950 sks choice Shipping, $1.55; 3,600 ctls Shipping, $1.52½; 13,00 do Milling, $1.55; 500 do Superfine, $1.40; 1,200 sks choice new Milling, $1.55; 200 do extra do, $1.57½ per ctl.

Wool—We note no change in the local market. The New York market is telegraphed as follows:

NEW YORK, July 22d.—The Wool market has been exceedingly dull during the week, the result of the goods sales acting unfavorably on it. From a manufacturer's point of view, the prices realized for the blankets and flanneis offered were at least 5 and 10 per cent. below the present cost of production, notwithstanding the present low price of the raw material. The sale, however, was of great benefit to the goods market, for the reason that a large quantity of stock was disposed of, and cash obtained for the same. There has been no variation in the prices of Wool, as holders have considerable confidence in the future of the market, and only show no disposition to recede from their established views, with the hope of an increasing volume of trade. The sales of the week are: 15,600 bales of Cape, a portion of which was for export to Canada, on private terms; 85,000 lbs spring California, 14@16c for hurry and slightly burry, and 18@21c for free; 32,300 lbs Eastern Texas, 18@23c; 30,000 lbs Georgia, about 25c; 25,000 lbs State combing fleece, 40c, and 2 000 lbs China, 20 bales Montevideo, 46,000 lbs fall California, 19,500 Eastern Texas, 12,000 lbs Western do, 800 scoured do, 700 bags super pulled, 75 do lambs' do, 200,000 lbs XX Ohio fleece, on terms private.

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by SUTRO & CO.]

SAN FRANCISCO, July 26, 3 P. M.

LEGAL TENDERS in S. F., 11 A. M., 89¾ to 90¼. Silver, 7½@8.

GOLD in N. Y. 111¾.

GOLD BARS, 880 to 890. SILVER BARS, 28 and 30 per cent. discount.

EXCHANGE on N.Y., 50-100 per cent. premium for gold; on London bankers, 49; Commercial, 49¼; Paris, five francs per dollar; Mexican dollars, 12 per cent. discount.

LONDON — Consols, 93 to 93⅛; Bonds, 102¼

QUICKSILVER in S. F., by the flask, per lb. 42½@45c.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., July 26, 1876.

BEANS.

Bayo, ₱ ctl	4 50@5 00
Butter	1 90@2 25
Pea	1 92½@ —
Pink	2 50@3 00
Sm'l white	1 60@1 90
Lima	1 90 @2 00

BROOM CORN.

Common, ₱ lb	2 @ 3
Choice, do	4 @ 5

COTTON.

Cotton, ₱ lb	15 @ 18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	27½@ 32½
Point Reyes	30 @ 32½
Firkin	25 @ 27½
W'st'n Reserve	16 @ 20
New York	— @ —

CHEESE.

Cheese, Cal., lb	10 @ 15
do Old	— @ —
Eastern	— @ —

EGGS.

Cal. fresh ₱ doz	37½@ 40
Ducks'	— @ 35
Oregon	32 @ 35
Eastern	21 @ —

FEED.

Bran, per ton	— @18 50
Corn Meal	27 50 @28 00
Hay	7 00 @13 00
Middlings	24 00 @—
Oil cake meal	— @37 50
Straw, ₱ bale	55 @ 60

FLOUR.

Extra ₱ bbl	5 50 @6 00
Superfine	4 50 @4 75
Graham, ₱ bbl	5 50 @ —

FRESH MEAT.

Beef 1st quality lb	6 @ 8
Second do	5 @ 5¾
Third do	4 @ 4¾
Spring Lamb	5½@ 6
Mutton	2½@ 3
Pork, undressed	7 @ 7½
do, dressed	— @ 10¼
Veal	6 @ 6½
Milk Calves	5½@ 7

GRAIN, ETC.

Barley, feed ctl	95 @ 1 00
do brewing	1 20 @ 1 25
Obevelier	1 25 @ 1 35
Corn, White	1 15 @ 1 22½
do Yellow	1 15 @ 1 22½
Oats	1 25 @ 1 60
Milling	— @ 1 75
Rye	1 50 @ 1 60
Wheat shipping	1 50 @1 52½
do milling	1 60 @1 65

HIDES.

Hides, dry	10 @ 13
do wet salted	6 @ 6½

HONEY, ETC.

Beeswax, per lb	25 @ 30
Honey in comb	12½@ 15
do Strained	6 @ 8

HOPS.

New crop	10 @ 13

NUTS—Jobbing.

Alm'ds h'rd sh'l lb	8 @ 10
do, soft sh'l	18 @ 20
Brazil do	14 @ 16
Cal. Walnuts	12 @ 14
Chile Walnuts	11 @ 12½
Peanuts per lb	9 @ 10
Filberts	15 @ 16
Pecannts	17 @ 18

ONIONS.

Union City ctl	— @—
Stockton	75 @— 80
New Red	50 @— 60
Silver Skins	62½@— 87½

POTATOES.

Petalnma, ₱ ctl	— @ —
Salt Lake	— @ —
Humboldt	— @ —
Half Moon hay	60 @ 80
Early Rose new	65 @ 75
Sweet	3 @— —

POULTRY & GAME.

Hens, per dz	6 50 @9 00
Roosters	6 00 @7 50
Broilers	3 00 @5 00
Ducks, tame, dz	5 00 @6 00
do Mallard	— @5 00
do Canvass	— @5 00
Geese, per pair	1 25 @2 25
Wild Grey dz	3 00 @4 00
White	1 50 @2 00
Turkeys, Live, lb	15 @ 18
do Dressed	20 @ 23
Quail, per doz	— @—
Snipe, Eng., doz	— @—
Doves, per dozeo	50 @ 57
Rabbits	1 00 @1 00
Hare, per doz	1 50 @2 10

PROVISIONS.

Cal. Bacon, L't, lb	16 @ 17
do Medium	15½@ 16
do Heavy	— @ 15½
Lard	14 @ 16½
Cal. Smoked Beef	10 @ 12½
Eastern do	— @ —
East'rn Shonld's	— @ 10
Hams, Cal	14 @ 14½
do Armour	14½@ 15
do Worster's	17 @ 17½
do Dupee's	16 @ 16½
do Davis Bros'	17 @ 17½

SEEDS.

Alfalfa, Obile lb	8 @ 10
do Californin	11 @ 12
Canary	10 @ 12
Clover Red	— @ 22
do White	50 @ 55
Cotton	6 @ 10
Flexseed	— @ 3¼
Hemp	12½@ —
Italian Rye Grase	25 @ 30
Perennial do	20 @ 30
Millet	10 @ 12
Mustard, white	3 @ 3½
do. Brown	3 @ 3½
Rape	7 @ 9
Ky. Blue Grase	30 @—
do 2d quality	29 @—
Sweet V Grass	— @ 75
Orchard do	30 @ 35
Red Top do	— @ 25
Hungarian do	8 @ 12
Lawn do	50 @ —
Mesquit do	20 @ 25
Timothy	11 @ 13

TALLOW.

Crude, ₱ lb	6½@ —
Refined	8¾ @ 9

WOOL, ETC.

SPRING—

Seedy, ₱ lb	9 @ 12½
Choice long free	17 @ 18
do Nortbern	19 @ 20
do short	13 @ 16½
Burry	10 @ 14
Oregon	14 @ 18

S. F. RETAIL MARKET RATES.

WEDNESDAY M., July 26, 1876.

POULTRY, GAME.

Chickens	50 @1 25
Eggs, Hens	35 @ 40
do Ducks'	— @ 35
Turkeys, ₱ lb	30 @ —
Ducks, each	1 00 @ —
Geese, wild, pair	— @ —
Tame, ₱ pair	2 50 @3 00
Snipe, ₱ doz	— @ —
do English	— @3 00
Quail, per dozen	— @ —
Prairie Chk's, pr	— @ —
Hares, each	25 @ 35
Rabbits, pair	37 @ —
Squirrels each	10 @ —
Hams, Cal. ₱ lb	16 @ 20

FISH, MEATS, ETC.

Flounder, ₱ lb	35 @ —
Salmon, ₱ lb	— @ 25
Smoked	— @ 10
Cod Fish, lb	25 @ —
Lake Big. Trout	— @ —
Beef, tend, ₱ lb	20 @ 25
Corned, ₱ lb	8 @ 10
Smoked, ₱ lb	— @ 15
Porter House St'k	20 @ 25
Sirloin do	15 @ 18
Round do	10 @ 12
Pork, rib, etc., lb	12½@ 15
Chops, do, ₱ lb	15 @ 20
Veal, ₱ lb	12½@ 15
Cutlet, do	15 @ 20
Mutton-chops, lb	6 @ 9
Leg Mutton, ₱ lb	10 @ 15
Lamb, ₱ lb	12 @ 15
Antelope	— @ —
Tongues, beef	75 @1 00
do, do, smoked	75 @1 00
Tongues, pig, lb	12½@ —
Bacon, Cal., ₱ lb	16 @ 20

FRUITS, VEGETABLES.

Apples, pr lb	5 @ 8
Pears, per lb	— @ 8
Apricots, lb	5 @ 8
Peaches, lb	6 @ 15
Plums	4 @ 20
Pine Apples, each	75 @1 00
Grapes	— @ —
Bananas, ₱ doz	50 @—
Muskmelons each	15 @ 35
Watermelons	25 @ 50
Blackberries	12 @ 15
Cal. Walnuts, lb	20 @ 30
Oranges, Sec, Org	— @ —
do Eastern qt	— @ 25
Huckleberries	— @ 25
Strawberries, lb	15 @ 20
Raspberries, lb	20 @ 25
Gooseberries	5 @ 12
Currants	4 @ 5
Cherries, ₱ lb	10 @ 30
Nectarines	— @ —
Pomegranates	— @ —
Oranges, ₱ doz	50 @1 25
Lemons	1 00 @1 25
Limes, per doz	— @ 25
Figs, dried Cal	12½@ 15
Figs, Smyrna, lb	25 @ 35
Asparagus, lb	6 @ 8
Artichokes, doz	25 @ —
do Jerusalem	— @ —
Beets, ₱ doz	20 @ 2
Potatoes, ₱ lb	2 @ 3
Potatoes, sweet	8 @ 10
Broccoli, each	10 @ 15
Cauliflower	10 @ 15
Green Peas ₱ lb	4 @ 6
Cabbage, per hd	10 @ —
Oyster Plant, bn	— @ 10
Carrots, ₱ doz	— @ 25
Celery, ₱ dz	75 @1 00
Cress, ₱ doz bun	20 @ 25
Onions	2 @ 3
Turnips, ₱ doz	— @ 25
Brussels Sprouts	— @ —
Eschalots	— @ 35
Dried Herbs, doz	30 @ 50
Garlic ₱ lb	10 @ —
Green Corn, doz	20 @ 50
Lettuce, ₱ doz	25 @ 35
Mint, ₱ bunch	— @ 12½
Musbrooms, ₱ lb	— @ —
Horse radish, ₱ lb	15 @ 20
Okre, dried, ₱ lb	— @ —
Pnmpkins, ₱ —	5 @ 6
Parenips, doz	— @ 25
Parsley	12½@ —
Pickles, frsh, ₱ lb	— @ —
Radisbes, doz	20 @ 25
Sage	— @ 25
Summer Squash	3 @ 5
Marrowfat, do	5 @ —
Hubbard, do	— @ —
Tomatoss lb	4 @ 8
Mangoes, ₱ doz	— @ —
Spinage ₱ bskt	— @ 12½
Rhubarb	4 @ 6
Green Cbilies	— @ 25

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., July 26, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M	— @— —
Tabiti, do	25 00@30 00
Cal. do	— @— —
Limes, Mexican, ₱ M	15 00@17 50
Malaga Lemons, ₱ bx	— @— —
Cal. ₱ 100	2 00@ 2 50
do Sicily ₱ b'x	12 00@— —
Bananas, ₱ bnch	2 50@ 3 50
Cocoanuts, ₱ 100	7 00 @ 8 00
Pineapples, ₱ dz	— @ —
Apples, ₱ box	40 @1 00
do Cboice	— @1 25
Apricots, lb	3 @ 4
Blackberries	5 @ 6
Cherries, ₱ lb	18 @ 20
Plums, lb	2 @ 4
Figs	— @ 12½
Gooseberries	5 @ —
Huckleberries	— @ —
Strawber's ₱ case	5 00 @ 7 00
Pomgranates	— @ —
Raspberries	12½@ 20
Currants, ₱ case	1 00@2 50
Cranberriee ₱ bbl	13 00@14 00
Peaches, ₱ box	40 @ 75
Crawford	75 @1 00
Pears, ₱ bx	—75 @1 00
do Cboice	— @ —
Crab apples, ₱ lb	2 @ —
Grape-₱ lb	2 @ 5
Rose of Peru	12½@ —

DRIED FRUIT.

Apples, ₱ lb	9 @12½
Pears, ₱ lb	8 @13
Peaches, ₱ lb	12 @12½
Apricots, ₱ lb	14 @15
Plums, ₱ lb	5 @ 6
Pitted, do ₱ lb	17 @22
Raisins, imported	3 25 @3 75
Cal. Raisins	5 @ 10
Black Figs, ₱ lb	5 @10
White, do	12½@15
Prunes	12½ @17
Citron	28 @ 30
Zants Currants	9 @ 10

VEGETABLES.

Asparegus ₱ box	2 50@3 00
Beets ₱ ctl	—@ 75
Cabbage, ₱ 100 lbs	50@62½
Carrots, ₱ 100 lbs	75@—
Cauliflower, doz	50@—
Celery, doz	50 @—
Garlic, ₱ lb	2 @ 2½
Green Peas ₱ lb	— @ 3
Green Corn ₱ doz	15 @22½
Snm'rSqnash ₱ box	—@—50
Merro'fat Sqsh, tn	15 @—
Artichokes, ₱ doz	— @—
String Beans, ₱ lb	1½ @ 2½
Lima Beans	— @10
Parsnips	— @—
Shell Beans	3 @ 3½
Peppers, green, bx	75 @1 00
Okra	8 @10
Cucumbers, ₱ box	50@ 75
Tomatoes, box	25@ 75
Egg Plant, box	75 @1 00
Rhubarb lb	1 @ 1½
Lettuce, doz	12½@ —
Turnips, pr otl	5@ 62½
Watermelons doz	1 00@1 50
Canteloupes do	1 00@2 50

GENERAL MERCHANDISE.

WHOLESALE.

WEDNESDAY M., July 26, 1876.

BAGS.

Eng. Stand Wbt	12¾@—
Neville & Co's	— @—
Hend Sewed	12¾@—
24x36	— @—
24x40	— @—
Machine do 24x40	— @15½
" " 23x40	14½@—
" " 22x40	14 @—
" " 22x36	12½@13
Flour Sacks ⅛s	9 @11
" " ¼s	6 @ 7
" " ½s	4½@ 5
Hessian 60-in	12¾@14½
do 45-in	10 @10¾
do 40-in	8½@9
Wool Sacks, 3½ lbs	45 @50
do 4"	50 @52½
Stand. tennies	12½@13½
single seam do	— @—
Bean Bags	7 @ 8

CANNED GOODS.

Ass't'd Pie Fruits in 2½ ₱ cans	2 75 @ 3 60
do Table do	3 75 @ 4 25
Jams & Jellies	4 25 @ —
Pickles ½ gl	— @ 3 50
Sardines, qr box	1 65 @ 1 90
do hf boxes	3 00 @— —

COAL—Jobbing.

Anstralien, ₱ ton	8 75 @ 9 00
Coos Bay	— @ 9 00
Bellingham Bay	— @ 9 00
Seattle	— @ 9 00
Cumberl'd	14 00@16 00
Mt. Diablo	5 75 @7 75
Lehigh	— @22 00
Liverpool	10 00 @11 00
West Hartley	— @14 00
Scotch	9 00 @10 00
Scranton	13 00 @16 00
Vancouver's Isl	10 50 @12 00
Cbarcoal, ₱ sk	75 @ —
Coke, ₱ bbl	— @ 60

COFFEE.

Sandwich Island	— @ 21½
Costa Rica per lb	22½@—
Guatemala	— @ 22½
Java	— @ 30
Manilla	— @ 21½
Rio	— @ —
Gronnd in oil	25 @—
Chicory	27 @—

FISH.

Sao. Dry Cod, new	— @ 6½
oeses	6 @ 7½
do honeless	8½@ 10
Eastern Cod	8 @ 8¾
Salmon in bbls	7 25 @—
do ½ bbls	3 75 @4 00
do ₱ lb cans	2 00 @—
do ₱ lb cans	1 35 @—
do Col. R. ½ ₱	5 00 @5 50
Pick. Cod, bbls	22 00 @—
do ½ bbls	11 00 @—
Mack'l, No. 1, ½ bls	11 00 @—
" Extra	— @12 00
" in kits	1 90 @2 25
" Ex mess	3 50 @4 00
" Ex mess, ½ bs	—@12 00
Pic'd Herr'g, bx	3 00 @ 3 50
Bos. Sm'k'd Her'g	40 @ 50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl	2 00@ 2 25
Cement, Rosendele, do	2 75@ 3 50
do Portland do	4 75@ 5 50
Plester, Golden Gate Mills	3 00@ 3 25
Land Plaster, ₱ ton	10 00@12 50

MISCELLANEOUS.

Pulu	@ 7½

NAILS.

Assorted size, ksg	3 75 @4 00

OILS.

Pacific Glne Co	
Neat F't No. 1	1 00 @ 90
Pure	— @— —
Castor Oil. No. 1	— @1 15
Baker's A A	— @1 15
Cocoanut	52 @ 55
Olive Plagniol	5 50 @5 75
do Possel	4 75 @5 00
Palm lb	9 @— —
Linseed, raw	— @ 65
do boiled	— @ 70
Cbina nut in os	65 @ —
Sperm, crude	60 @1 65
do bleached	1 90 @2 25
Coast Whales	47½@ 50
Polar, refined	— @ 50
Lard	— @1 20
Oleophine	— @ 28
Devoe's Brill't	25 @ 28
Long Island	— @ 25
Enreka	26 @ 27
Devoe's Petro'm	25 @ 27½
Barrel kerosene	23 @ 25
Olive	—@3 50
Downer Kerose'e	— @ 37½
Eleioe	37½@ —
Gas Light Oil	23 @ 25

PAINTS.

Pure White Lead	9¾ @10¼
Whiting	— @ 1¾
Putty	4 @ 5
Chalk	— @ 1½
Paris White	— @ 2½
Ochre	— @ 3½
Venetian Red	— @ 3½
Red Lead	10 @ 11
Litharge	10 @ 11
Eng. Vermillion	—@1 25
Averill Chemical Paint, per gal. White & tints	2 00 @2 40
Green, Blue & Ch Yellow	3 00 @3 50
Light Red	3 00 @3 50
Metallic Roof	1 30 @1 60

RICE.

Cbina No. 1	5½@ 6
Hawaiian, ₱ lb	7½@ 7¾
Carolina, ₱ lb	10 @

SALT.

Cal. Bay, per ton	10 00@14 00
do Common	5 00@ 7 00
Carmen Island	12 00@15 00
Liverpool fine	22 50@25 00

SOAP.

Castile ₱ lb	10 @ 11¼
Common brands	4½@ 6
Fellow do	7 @ 9

CANDLES.

Grent's	16½@ 17
Mitchell's	20 @ 22

SPICES.

Cloves ₱ lb	45 @ 47½
Cassia	23½@ 26½
Citron	28 @ 30
Nntmeg	95 @ 97½
Whole Pepper	14½@ 15½
Pimento	16 @ 17½
Gr'nd Allsp'ce pr dz	—@1 12
do Cassia do	—@1 50
do Cloves do	—@1 50
do Mnstard do	—@1 20
do Ginger do	—@1 00
do Pepper do	—@1 00
do Mace do	—@2 00
Bowen's Pure Grnond ₱ lb	— @ 50

SUGAR, ETC.

Cal. Cube per lb	— @ 12¼
Cirole A crushed	— @ 12
Powdered	— @ 12¼
Fine crushed	— @ 12
Granulated	— @ 11½
Golden C	— @ 10½
Hawaiian	10 @ 11
Cal. Syrup in kgs	— @ 62½
Hewelien Molesse	25 @ 27½

TEA.

Oolong, Canton, lb	19 @ 25
do Amoy	28 @ 50
do Formosa	40 @ 80
Imperial, Canton	25 @ 40
do Pingsuey	45 @ 80
do Moynne	60 @1 00
Gnnpo'der, Cant	75 @1 00
do Pingsuey	50 @ 90
do Moynne	65 @1 25
Y'ng Hy., Canton	28 @ 40
do Pingsuey	40 @ 70
do Moyune	65 @ 85
Japen, ½ sheste, bulk	30 @ 75
Japen, lacquered bxs, 4½ end 5 lbs	45 @ 67
Japen do, 3 lb bxs	45 @ 90
do pl'n bx, 4½ lb	35 @ 65
do ½ & 1 lb paper	30 @ 55

TURPENTINE.

Eastern	51½@55

LEATHER.

[WHOLESALE.]

WEDNESDAY M., July 26, 1876.

City Tanned Leather, ₱ lb	22@29
Santa Cruz Leather, ₱ lb	22@28
Country Leather, ₱ lb	22@29
Stockton Leather, ₱ lb	25@29
Jodot, 8 Kil., per doz	55 00@ 70 00
Jodot, 11 to 13 Kil., per doz	65 00@ 79 00
Jodot 14 to 19 Kil., per doz	82 00@ 94 00
Jodot, second choice, 11 to 16 Kil. ₱ doz	57 00@ 74 00
Cornellian, 12 to 16 Ko	57 00@ 67 00
Cornellian Females, 12 to 13	63 00@ 67 00
Cornellian Females, 14 to 16 Kil	71 00@ 76 50
Simon Ullmo Femeles, 12 to 13, Kil	58 00@ 62 00
Simon Ullmo Femeles, 14 to 15, Kil	66 00@ 70 00
Simon Ullmo Females, 16 to 17, Kil	72 00@ 74 00
Simon, 18

Agricultural Articles.

J. W. CASSIDY'S

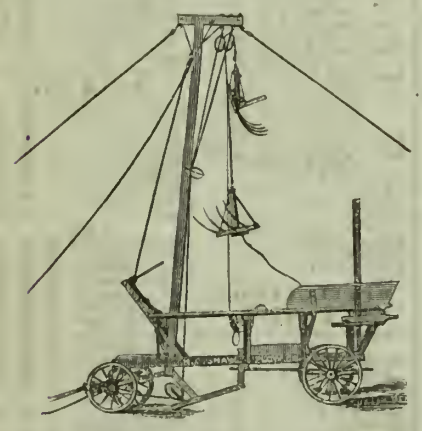
FRUIT DRIER.

A New Invention, although Thoroughly Tested, which Combines all the Improvements.

We warrant a complete success in drying all sorts of fruit and vegetables as thoroughly and more expeditiously than any other Machine, for less amount of fuel by 35 per cent, as we utilize all the waste heat which is lost by all other Machines.



Its simplicity of construction and its cheapness will put it in the hands of all who may want a Drier. We don't pretend to ask from $1,200 to $1,500 profit and royalty. We are willing that producers should make the profit and keep it. The Machine has been tested to our entire satisfaction, and met our most sanguine expectations. The fruit dried by our Drier was fully as good as that dried by any of the renowned Driers. We would say to all who contemplate putting up Machines, that we can make it a decided inducement for all such to give us a call, as we want to sell the entire right of the United States, State, County or Local, at such prices that the poor as well as the rich can use them. The capacity of the Machine will be in proportion to the size, ranging from 100 to 500 feet drying surface. This dryer was more fully illustrated and described in the RURAL PRESS of May 20th, 1876. Communications to T. F. BACHELOR, 622 Clay St., S. F., or to J. W. CASSIDY, Petaluma, Cal., will be thankfully received and promptly attended to.



This cut represents a DERRICK AND FORK, for the purpose of supplying GRAIN IN THE STRAW TO A THRESHING MACHINE. The success of this machine is beyond question. It is a saving of EIGHT OR TEN DOLLARS PER DAY over the hand fork mode. We also make DERRICKS for the purpose of STACKING HAY OR GRAIN, which meet with great favor everywhere. Manufactured by MATTESON & WILLIAMSON, Stockton, Cal.

The Famous "Enterprise"

(PERKIN'S PATENT)

Self-Regulating, Farm Pumping, Railroad and Power

WINDMILLS,

Pumps & Fixtures,



Have been in use in California for five years. Over 500 sold in the towns and farming districts of California. All Mills guaranteed. Send for circulars containing sectional and other illustrations, and further description, to

HORTON & KENNEDY, *Sole Managers Pacific Coast*
General Office and Supplies,
LIVERMORE, ALAMEDA COUNTY, CAL.

Marster's Self Regulating

FEEDER

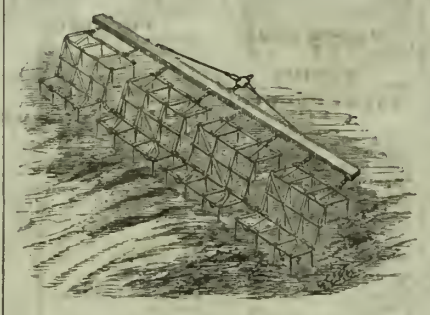
For Threshing Machines,

Is the only Feeder manufactured that feeds without moving all the straw in a body, consequently gives a more regular feed than it is possible to obtain with a draper feeder; it feeds the whole length of the cylinder; it is easily changed to feed fast or slow as desired; saves the labor of two men and does not require an experienced tableman to feed it. The separator needs no alteration with the exception of the removal of feed board to secure it in position, and does not have to be taken off when moving. It requires but little power to run it, and has no complicated parts liable to get out of order. Its success having been fully demonstrated, I cordially invite all parties interested to call and judge of its merits. For full particulars address

E. J. MARSTERS,
Stockton, Cal.
Works, Corner California and Sonora Streets.

IRON

Sectional Harrow.



This Harrow was Awarded the First Premium at the California State Fair in 1875.

The Undersigned, having Purchased the Patent Right of this Harrow for California, are now Manufacturing them in Roseville, Placer County,

And would call the attention of Farmers to the superior merits of this Harrow over all others now in use.

As its name indicates, it is made in Sections of about three feet in width, each Section having four Bars, in which the teeth are inserted, and by connecting the Sections with links, the Harrow is formed.

SHOULD A FARMER REQUIRE A HARROW UPON HIS FARM TO DO ALL KINDS OF WORK, HE SHOULD PURCHASE SIX SECTIONS, WHICH WOULD BE SUITABLE FOR FOUR HORSES, AND WOULD CUT 18 FEET IN WIDTH; BY DISCONNECTING TWO SECTIONS, HE WILL HAVE A TWO OR THREE HORSE HARROW, CUTTING ABOUT 13 FEET. ONE SECTION ALONE IS COMPLETE IN ITSELF, AND SUITABLE FOR GARDEN WORK, WITH ONE HORSE.

The Harrows are Made of the Best Quality of Iron, and with Teeth Warranted to be Steel

We give a few of the many reasons why we claim superiority for these Harrows over all others in use on this Coast:

First—By the lightness of draft, taking into consideration the amount of work it does.

Second—By working uneven or rolling ground just as well and as evenly as if it was entirely level.

Third—They are made of Iron and Steel, and therefore are not affected at all by sun or rain, or by heat and cold; they are always tight, and ready for use; they are also durable. A farmer purchasing one has a Harrow that will last a life time.

Fourth—The teeth being fastened with a nut and screw into the cross bars, should one break, another can be inserted in a moment. We are making three sizes, all being the same in width, but differing in depth and weight only.

Prices, from $12.50 to $15.00 per Section.

All orders sent to

BREWSTER & CO.,
Roseville, Placer Co.,

Will be promptly attended to, and satisfaction guaranteed in all cases.

CAUTION.

It has come to our notice that certain parties are now making this Harrow in this State, and that several of them have been sent here from the East. Now this is to *caution* all persons against making, selling or buying them, so made and offered for sale, as we shall enforce our rights in relation to the matter, and would call the attention of all persons infringing upon our patent, to the *law* in regard to it.

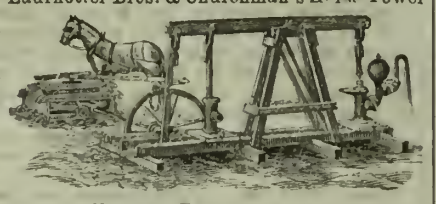
BREWSTER & CO.,
Roseville, July 15th, 1876.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power



[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

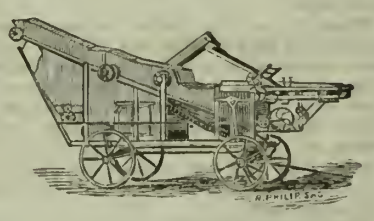
WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,
Cor. J and 10th Sts., Sacramento.

JACKSON'S

PATENT FEEDER & ELEVATOR



For Threshing Machines.

The most successful Automatic Feeder yet invented; it has had the severest tests in all kinds of grain, long, short, wet or weedy, during the past six years. There are over two hundred in use in the Sacramento valley. I will give full guarantee to purchasers. Send for special circular. Address,

BYRON JACKSON,
Patentee & Manufacturer,
Woodland, Yolo County, California.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.

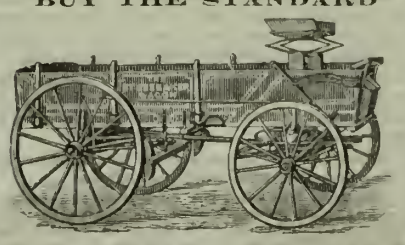


Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.

BUY THE STANDARD



STUDEBAKER WAGONS.

We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

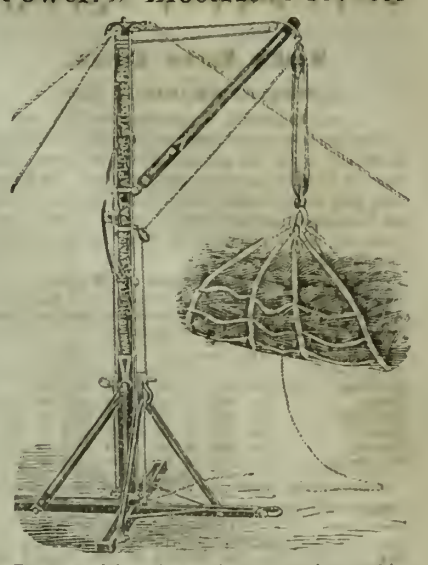
E. F. AMES, Gen. Agent,
Send for Price-List. Sacramento, Cal.

OAKLAND Spring Balance Gang Plow.



Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal. Established in 1858. Send for Circular and Price-list.

Powell's Electric Elevator



The great labor, time and money saving machine. This machine is used in the harvest field to elevate grain, hay and straw from the header box to the stack only a few seconds being required to elevate a large four horse load. The load is taken up in a center opening net or sling. Patented April 20th, 1875. For description, circular and price list, address

THOS. POWELL, Patentee, Stockton, Cal.
Or H. C. SHAW PLOW CO., Stockton, Cal.

FAULKNER'S EXCELSIOR

Portable Family Fruit Drier,

$65.00 to $75.00.

The Best, Cheapest and Only Practical Portable Family Fruit Drier Made.

It will do as good work as any Drier. It can be used in connection with the cook stove or any small stove; may be run in the house or out of doors. Is very compact and plain in its construction and simple in its management. A child can attend to it.

With this Drier every family can save their surplus fruit, and put it in condition to bring the cash or trade at the store. We have the world for a market; last year's stock is exhausted. There will be a ready sale at good prices for all you can make.

Manufactured and for sale by E. T. STEEN, 31 Beale street, where they can be seen in operation. Also for sale by Messrs. STRONG & WILLIAMSON, 418 Clay street, San Francisco, and Messrs. W. R. STRONG & CO., 8 and 10 J street, Sacramento.

County Rights for 15 years for sale low and on easy terms by

JAS. W. FAULKNER, Patentee,
31 Beale Street, San Francisco

COHANSEY GLASS TOP

FRUIT JARS.

FRUIT IN CONTACT WITH GLASS ONLY.



Elastic Pressure by Spring Clamps on Shoulder Joint.

The Screw Clamp turns freely on Cover and Inclines, and tightens the Jar quickly and is Easily Tested.

Easily opened and closed, without wrench or tool.

Every Jar being inspected, there is no trouble in using.

The Handsomest and Best Glass Lid Fruit Jar.

COHANSEY GLASS MF'G CO.,
N. W Cor. Third and Arch Sts., Phil'a.

REDDINGTON & CO.,
Wholesale Agents, - - - San Francisco, Cal.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

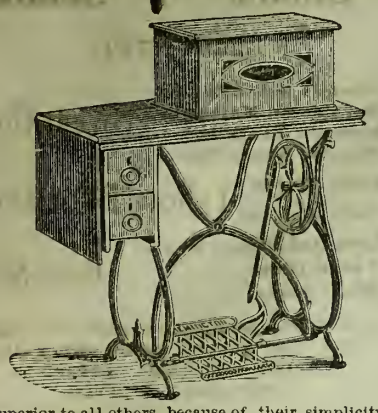
SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

Davis & Sutton, Commission Merchants,

For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A Unak & Co., Pacific Fruit Market, San Francisco, Cal.

REMINGTON SEWING MACHINES.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

REMINGTON SEWING MACHINE CO.,
629 Market st., under Palace Hotel. S. F.
AGENTS WANTED FOR CITY AND COUNTRY.

MERCHANT MILL FOR SALE,

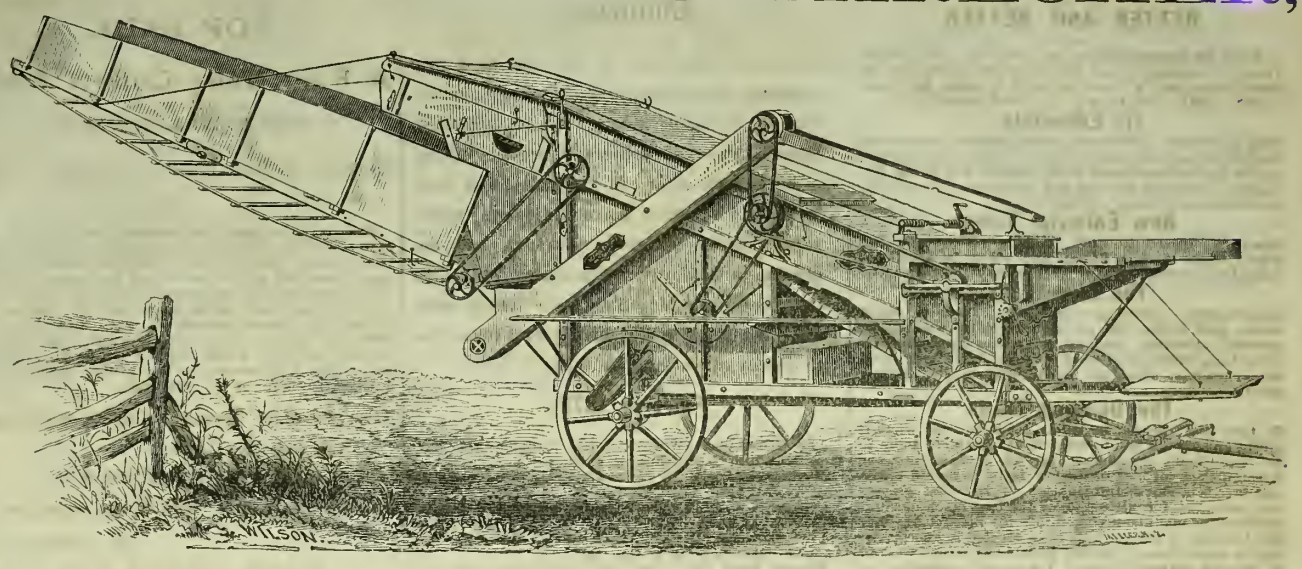
And 150 Acres Land. Turbine Wheel, 190 feet fall, 35 barrels per day. Good Home Market and Never Failing Water.

S. A. POLLARD,
San Luis Obispo.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER
AND BLANK BOOK MANUFACTURER,
521 Clay Street, S. F.
Blank Books Ruled, Printed, and Bound to Order

SWEEPSTAKES THRESHER,



With all the Latest Improvements for the Pacific Coast, Manufactured for FRANK BROS. & CO.

We will warrant every Machine sold to do Better, Cleaner and Faster Work than any other Thresher on the Coast.

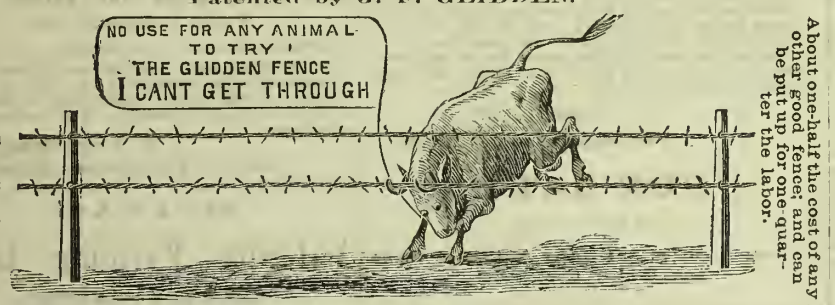
All who are in want of Threshers should not fail to call and see the improvements that have been put on the Sweepstakes for the Harvest of 1876. We also have the Cary Power, to which we would call special attention.

FRANK BROS. & CO.,
349 MARKET STREET. - - - - - - - - - - SAN FRANCISCO.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE

Patented by J. F. GLIDDEN.



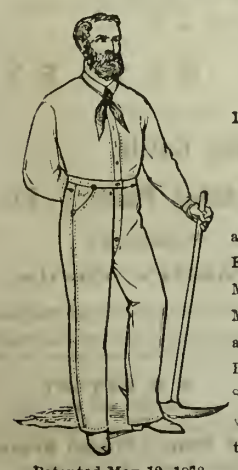
It makes the most durable, safe, and reliable fence in the world against stock of all ages.

About one-half the cost of any other good fence, and can be put up for one quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8. Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,
General Agents for the Coast. K and 10th Streets, Sacramento.

LEVI STRAUSS & CO.,



Patent Riveted
Clothing,
14 & 16 Battery St.,
San Francisco.

These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

Patented May 12, 1873.
USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY. eow-bp

E. B. MOTT, Jr.,

IMPORTER AND DEALER IN
STOVES, METALS AND TINWARE
And Sole Agent for the Rathbone Range.
53 and 55 J Street, Sacramento.

ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco

LEA & PERRINS'

CELEBRATED
WORCESTERSHIRE SAUCE,
DECLARED BY CONNOISSEURS TO BE
THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of Lea & Perrins' Sauce, which are calculated to deceive the Public, LEA & PERRINS have adopted A New Label, bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of Worcestershire Sauce, after this date, and without which none is genuine.

November 1874.

**** This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

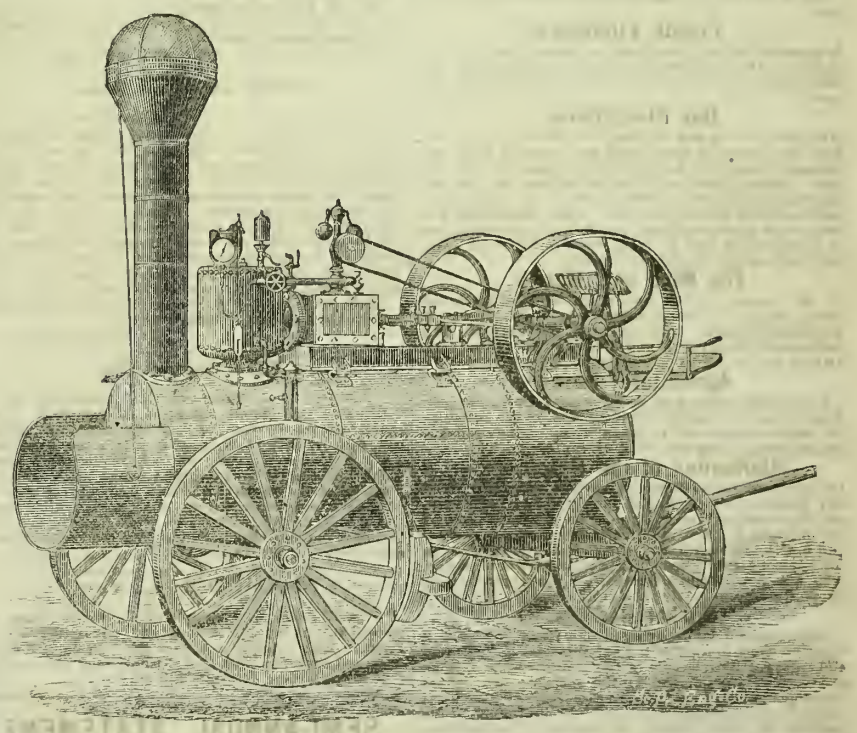
Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco.

No AGENTS are authorized to receive subscriptions for this paper at less than our advertised rates.

PORTER & CO.'S PATENT

STRAW BURNING THRESHING ENGINES.



Best Portable Straw Burning Thresher in Use.

WILL SELL CHEAPER THAN ANY SIMILAR ENGINE ON THIS COAST.

SHIPMENT JUST ARRIVED.

A. L. FISH & CO., 9 and 11 First Street, San Francisco.,
MANUFACTURER'S AGENTS.

JOHN H. GOVE'S

CENTENNIAL HAY PRESS.

Farmers and Hay Pressers will find it to their advantage to examine this Press before buying any other. It is built compact, combining lightness for moving with the greatest power and durability in its working parts, capable of making the average 250 pound bale, more or less, baling 10 to 15 tons per day, with three men and a pair of horses, they traveling only 36 feet to operate it. No excavations required for this Press. This is the original Gove Press improved, after an experience of building Presses in the States the past 15 years, where they give the best of satisfaction. **Price, No. 1, $250.**

Manufactured and for sale, or built to order, at the EUREKA GRAIN STORAGE WAREHOUSE, by **JOHN H. GOVE** or **ANDREW J. GOVE,** Box 1122.

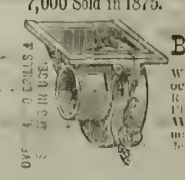
A Liberal Discount to the trade. For Sale by all Agricultural Dealers.

To All Interested in the Production of
CALIFORNIA RAISINS.

We are now in communication with reliable parties who have had 20 years' experience in the business in Spain, whereby we can furnish any information with regard to curing, packing, etc., gratis. We have perfected arrangements by which we can furnish cuttings of the famous Malaga Raisin Grapes direct.

FRUSIER & SPAFFORD,
310 and 312 Clay Street, San Francisco.

7,000 Sold in 1875. NEW FORCE FEED FOR Buckeye Grain Drill.



Will sow any desired quantity without change of gear. Will sow Wheat, Rye, Oats, Barley, Beans, Peas, Corn, Flaxseed, &c. Just What You Want. Is best and Force Feed ever made. Send for circular, or ask your dealer to show you the Buckeye.

P. P. MAST & CO., Springfield, O.

THE PACIFIC RURAL PRESS
For 1876.

BETTER AND BETTER.

While we cannot promise to labor any more faithfully or earnestly for our readers in the future than we have in the past, we shall endeavor to make the PRESS MORE COMPLETE IN ALL ITS DEPARTMENTS.

Its Editorials,

Will be written by able and conscientious writers, and with such judgment and care as to render the journal of the highest usefulness to its readers, and to the permanent welfare of the new and progressive community its columns especially represent.

New Editorial Talent

Has been engaged to work in co-operation with the senior editor of the RURAL and other assistants, in extending forward some of its important branches.

The Live Stock

Departments—including the horse, horned stock, sheep, goat, swine and poultry interests—will receive constant attention, and our researches for reliable information, which shall be of practical use to our Occidental readers, shall not be limited to any narrow sphere.

The Dairying Trade

Of this coast is yet in small dimension to what it might and should be—to what it is destined soon to be. Intelligent experience; careful experiments; the dissemination of demonstrated facts in regard to the best breeds of stock; information of the best grasses for pasturage for all seasons; the best machines and methods for manufacturing; hints for marketing, etc., will be some of the subjects to be treated in an earnest way in our columns, that the RURAL PRESS may well do its share in advancing one of the most promising industries of the coast.

Our Correspondents

Number some of the ablest domestic writers in the Union, and we are proud to say we would not exchange their co-operative pens for those of any other corps of newspaper correspondents. They are not only friends at heart of our paper, but of the true cause of progressive manhood and womanhood everywhere. Our sources of

Fresh Information

Are not equalled by those of any other agricultural journal in the United States, and making the best use possible of our facilities, we are determined that every issue of the RURAL PRESS for 1876 shall teem with a choice and well dressed variety of desirable information. The pursuit of

Floriculture and Horticulture

On the Pacific slope presents a field of delightful study more prolific in novelty and fruitful in profits than awaits the student and laborer in any other portion of the globe. We trust to exchange valuable hints with our florists, vineyardists and fruit growers throughout the Pacific States.

Our HOME CIRCLE department will contain none other than

Chaste Literature

In pleasing variety, calculated to amuse, instruct and elevate both the young and old boys and girls, who may turn to its columns for pastime and self-improvement.

Our Illustrations

Will be numerous and calculated to please the eye and help the mind to see quickly and correctly many important objects that might otherwise pass their knowledge. Some of them will enable farmers to see and contrast for themselves many kinds of new and important machines and implements. This illustrated feature of our paper, although expensive to its publishers, is an important one to rural readers—especially in a new and rapidly developing country.

The Mind and Health

Of the readers of the RURAL will be cared for in our GOOD HEALTH, USEFUL INFORMATION and DOMESTIC ECONOMY columns. Our GENERAL NEWS ITEMS, NEW INVENTIONS, SCIENTIFIC and MECHANICAL MISCELLANY articles will be continued throughout the year.

Agricultural Notes.

Under this head will be reported weekly, carefully selected and condensed items concerning the agricultural improvements and progress of the various counties and districts of the wide field we represent. The

Information of the Resources

Of this coast, set forth in the various departments of our paper, is not only of important benefit to its readers, but to every property holder on the coast, through the influence it exerts in stimulating enterprise at home and healthy immigration from abroad. There are but few persons interested in agricultural pursuits here who are not benefited annually by our publication above the amount of its subscription price.

Market Reports.

In its commercial department, the RURAL PRESS will spare no effort to furnish the agriculturist an accurate and trustworthy schedule of the prices which various productions are gaining in the market. We regard this department of our paper as worthy of the most careful and discriminating labor. In our review of the markets we shall present all attainable information concerning the tendency of production of various supplies and the features of the trade in them. We shall afford all the evidence which can be secured for forming true judgment of the features of agricultural trade and commerce. Although this is a difficult department we shall especially strive to give the best weekly domestic produce reports in the city.

The Best is Cheapest.

We might fill our advertising columns with high-priced

Quack and Swindling Advertisements,

And our reading columns with paid puffs, and thereby be enabled to furnish a large paper at a remarkably low price, but *we will not do it.* We believe our subscribers prefer a good paper at a reasonable price to the so-called cheap papers that trifle with their confidence. Time is precious, and patrons will find that reading the cheapest which is most suitably prepared for their special avocation and locality.

The Friends of Our Paper

Have done much since its first issue, in January, 1870 to make the RURAL PRESS of the Pacific coast what it is to-day. Thanking them for past kindnesses, we invite all our readers to make known its merits to those who are not yet its reading or advertising patrons.

A Farmer's Paper Throughout.

We repeat that the PACIFIC RURAL PRESS will continue to be a faithful advocate of the best and highest interests of agriculturists on this coast—according full justice to other kindred industries in conjunction with which agriculture alone can permanently thrive.

A Handy Map

Of California and the principal portion of Nevada will be furnished free to all subscribers who pay one year in advance, during the year 1876. The map is plain, printed on tinted paper, about 16x20 inches, showing townships in California, and the counties, railroads and principal towns in California and Nevada.

We Prepay the Postage

On all papers sent to subscribers in the United States.

SUBSCRIPTION RATES, payable in advance: One year, $4. Sample copies free to those who will assist in obtaining subscribers.

DEWEY & CO., Publishers.

No. 224 Sansome street, S. F.—Jan. '76.

The Scientific Press Engraving Company.

As has been announced in our columns, this company is prepared to do fine wood engraving on favorable terms. Mr. E. Schultze, managing partner, served a thorough tuition in his branch of art in Germany and New York, and has since had over seven years' experience in designing, drawing and engraving in California. Customers can place their orders in Mr. Schultze's hands with the full assurance of receiving satisfaction as to quality of work and fairness of price.

Fairs in 1876.

The Centennial (World's Fair), Philadelphia, Pa., from May 10th to continue till autumn.

Mechanics' Institute Industrial Fair, S. F., beginning August 8th.

California State Fair, Sacramento, from Sept. 18th to Sept. 23d.

The Southern District Agricultural Society, Los Angeles, from Oct. 5th to Oct. 14th.

Nevada State Fair, Reno, Nev., from Sept. 11th to Sept. 16th.

Sonoma and Marin District Fair, Petaluma, from Oct. 9th to Oct. 16th.

Oregon State Fair, Salem, from Oct. 9th to Oct. 16th.

Northern District Fair, Marysville, from Oct. 9th to Oct. 16th.

San Joaquin Valley Agricultural Fair at Stockton, beginning Sept. 26th.

Contra Costa County Fair, Pacheco, from Sept. 25th to Sept. 29th.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

J. L. THARP—San Francisco.
B. W. CROWELL—California.
G. W. MCGREW—Santa Clara county.
J. M. MCARTHUR—Los Angeles, Santa Barbara, Ventura, San Bernardino and San Diego counties.
A. C. KNOX—El Dorado county.
F. A. SCOFIELD—Sonoma county.
C. N. WEST—Santa Cruz county.
CHAS. E. SAJOUS—Philadelphia.
A. C. CHAMPION—Tulare, Fresno and Kern counties.
RICHARD RULE—Nevada.
B. G. ODEN—Pacific States and Territories.

"Faith and Confidence"

LIVERMORE, Oct. 1st, 1875.

MESSRS. DEWEY & CO., Patent Solicitors: *Gentlemen*—Yours of the 29th ult. containing my patent to Elevated R. R. duly received, and I hereby return my sincere thanks to the MINING AND SCIENTIFIC PRESS Patent Agency for your promptness and honesty in regard to our business connections. I have received a flood of circulars from Eastern firms, desiring to deal with me, but I have declined any communication with them and prefer, as soon as circumstances will permit, to negotiate with and patronize a home institution; one in which I have faith and confidence—DEWEY & CO.

Again thanking you for your promptness in securing my patent, I remain, obediently yours,

WM. H. HARRISON.

Much Obliged, Etc.

PORTLAND, OGN., June 26th, 1876.

DEWEY & CO, Patent Solicitors, S. F.—*Gents:* I am much obliged to you for courtesy shown me, and am well pleased with the manner in which you have done my business, and a sure you, will cheerfully recommend you to my acquaintances needing such services. Hope to have a case again before long, of my own. I have been an inventor all my life, but let others reap the benefit, or had work stolen from me. Please have the extra copies of my patent, etc, mailed to me direct, and oblige Yours truly, J. H. WOODRUM.

"Twenty Dollars a Year."

"I would not be without that RURAL PRESS for twenty dollars a year," says an old subscriber to our agent in Yolo county; "That is the best paper out for good and useful information. I have had the reading of it for two years, but now will take it."

SEMI-ANNUAL STATEMENT

OF THE ACTUAL CONDITION OF THE

Grangers' Bank of California,

JULY, 1876.

In accordance with the Act of the Legislature of the State of California, approved April 1st, 1876, chapter 487, entitled, "an Act concerning corporations and persons engaged in the business of banking."

We, the undersigned, C. J. Cressey, Manager, and A. Montpellier, Cashier, of the Grangers' Bank of California, a corporation duly organized under the laws of the State of California, engaged in the business of banking, at the City and County of San Francisco, do hereby make the following statement of the actual value of the Assets and Liabilities of the said corporation at the close of business on the 22d day of July, A. D., 1876, to wit:

Capital.

Amount Actually Paid In, U. S. Gold Coin	$210,240 00

Assets.

Loans and Discounts	$701 170 28
Overdrafts due by depositors on securities.	72,004 46
Real Estate, (bank interest in Grangers' bdg)	20,000 00
Office Furniture and Fixtures	836 15
Cash on hand	54,212 00
	$848,222 89

Liabilities.

Capital Stock	$660 180 00
Deposits (balance due to depositors)	72 040 70
Certificates of Deposit	112,772 69
Balance dividend unpaid	3,229 50
	$848,222 89

A. MONTPELLIER, Cashier.

State of California, City and County of San Francisco:—Albert Montpellier being duly sworn deposes and says that he is the Cashier of the Grangers' Bank of California above mentioned, and that the foregoing statement is true to the best of his knowledge and belief.

A. MONTPELLIER.

Subscribed and sworn to before me, this, the 26th day of July, A. D., 1876. JAMES L. KING, Notary Public.

Lands and Homes for Sale.

FOR SALE,

A Fine Napa County Farm,

ONE HUNDRED ACRES,

Seven Miles East of Napa City.

Fifty acres in vines, the remainder is grain and pasture land. The Vineyard contains six varieties of the best table and wine grapes. One-half of the vines are seven years old and the other half four years. Orchard of 150 best fruit and nut trees. Buildings are a dwelling, good barn and stable, large shed for wagons, two houses for hands, storehouse, etc Steamer to San Francisco lands 2½ miles from the place, and proposed railroad will run within half a mile. This property will return good interest on the investment, and make a delightful home at the same time.

Title Perfect. Terms, $10,000, Half Cash.

Apply to

ROBERT J. MERCER & CO.,

REAL ESTATE AGENTS, 426 Montgomery St.,

San Francisco, Cal.

A Desirable Bargain.

Mr. Lee H. Utt, of Pala, San Diego county, offers for sale a share in his valuable place, consisting of 320 acres, and situated as described above. There is an Apiary on the ranch in successful operation. For this business it possesses marked advantages. Twenty acres are seeded to alfalfa and eight acres are in vines. The place has growing on it 420 trees, many of them in bearing.

The owner will warrant the Cavendish Dwarf Banana to grow as well here as in Florida. He has three now growing. The pasture now enclosed will keep 50 head of cattle. The ditch—which is large enough to run a mill—is stocked with trout, and has a fish pond 100 feet square, and full of fish. There is a nice warm spring, with bath house; the water contains sulphur, salts and iron.

The place possesses great natural advantages, and the present owner has not spared money nor labor to improve; but being a valetudinarian he is not strong enough to attend to the work. To the right kind of a man a rare opportunity is here offered. To such a person as will come in good faith he extends the invitation to stop on the ranch long enough to become familiar with its characteristics and capacities.

Parties can refer to I. Nast, stock broker, San Francisco, or to anybody of note in San Diego. The place bears the name of "Aqua Tibia." Address,

LEE H. UTT,

Pala, San Diego County, Cal.

FOR SALE,

IN LOTS TO SUIT,

5,000 Acres of the Lake Vineyard Land and Water Association.

These lands are in the great fruit belt of Los Angeles County,—only six miles from the city—are peculiarly adapted to semi-tropical fruits, and adjoin the famous Lake Vineyard of Hon. B. D. Wilson. The Southern Pacific railroad runs through the land; convenient to schoolhouse and church; water in abundance, and the water-right is sold with the land. Title perfect. A Map of the tract may be seen at the office of Mayor Beaudry, on Spring street, opposite City Council rooms. References may be made to HON. B. D. WILSON or J. DE BARTH SHORB, at Lake Vineyard, who will take pleasure in showing the lands. Also, to MAYOR BEAUDRY or D. FREEMAN, Los Angeles city.

A RARE CHANCE

FOR SALE—My POULTRY BUSINESS, with my Farm of 115 acres; 22 acres of Vineyard and Orchard; House of 10 rooms; Barns; Granaries; 30 Chicken houses.

Receipts between $3,000 and $4,000 a Year,

Fully proved to the purchaser. Farm Implements, Wagon, Horses, Cows, etc., with Poultry (value over $3,000) included. **Price, $12,000, one-half cash.** Or I WILL SELL A HALF INTEREST and continue the business in partnership with the purchaser to reside on the place. Address,



M. EYRE, Napa, Cal.

In view of above I offer a few fine Fowls, Bronze Turkeys, etc. (not included in breeding pens and stock sold with farm), at reduced prices.



FOR SALE,



A large and well established NURSERY, with an extensive trade and an excellent business reputation. A large and well selected stock on hand that will nearly pay for the whole thing the coming season. It is the only first-class Nursery in the great Sacramento Valley.

For further particulars, apply to

W. R. STRONG & CO.,

, 8 and 10 J St., - - - - Sacramento,

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FRED WOLFF,

CARPENTER and BUILDER.

Particular Attention paid to

Country Work.

Address, No. 344 FULTON STREET,

SAN FRANCISCO.

Seeds. Seeds.

IMPORTED.

Crosby's Extra Early Marblehead Mammoth Stowell's Evergreen Mexican Sweet, New	Sweet Corn.
Early Canada Early Dutton	Yellow Flint Corn.
Long Red Mangel Wurzel Yellow Globe White Sugar	Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,

No. 317 Washington Street,

v8-tf SAN FRANCISCO.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in



FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞Trade Price List on application.

*.*My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,

419 and 421 Sansome Street, S. F.

TO LEASE,

Valuable Farming Lands,

NEAR SAN FRANCISCO.

1,300 Acres of Splendidly Reclaimed Meadow Lands, on Sonoma Creek, in the Whole or in Subdivisions, on favorable terms, for a term of years.

The land is very fertile, perfectly reclaimed against floods, and admirably drained. It is beyond the influence of floods in the Sacramento River, and the water has never risen more than 20 inches against the levee, which is four and a half feet high and 14 feet broad. The first crop of barley put in last winter yielded three tons of hay per acre, and that which was not cut will yield heavily in grain. The soil is also superior for vegetables. It is 25 miles from San Francisco, and has six miles of frontage on Sonoma creek. The largest hay sailing craft can load from the banks at any point. Steamers touch at the wharf daily. Steamboat freights, $2.00 per ton; sailing freights, $1.00 to $1.50 per ton.

Maps can be seen and particulars obtained from

ROBERT J. MERCER & CO.,

REAL ESTATE AGENTS,

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GEO. B. BAYLEY,

IMPORTER AND BREEDER OF



Jersey Cattle,

Choice Poultry, Etc.

OAKLAND

Poultry Yards,

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Send stamp for circular, containing a full description of all the best known and most profitable fowls in the country.

G. B. BAYLEY,

P. O. Box 659, San Francisco.

Howell's Improved Patent Wagon Brake.

(Illustrated in RURAL PRESS of July 29th.)

References.—The following are a few of the many persons using the HOWELL BRAKE,—any one of whom can be consulted: C. S. Davidson, Jacob Loncor, G. C. Truex, A. Valentine, John Beatty, Samuel Vansickle, Sylvanus Lawrence, Crispin & Willson, Wm. H. Hart, Joseph Ayres, John H. Ayres, Collins B. Drake, Steward Wells, Michael Younge, Wm. Pinkney, Peter Haines, Marshall Ackerson, Jonathan P. Haines, Robert T. Johnson, Overton Heminover,—all of Andover, N. J.

State rights for sale. Address,

C. M. HOWELL, Andover, N. J.

More than double the number of Farmers and their families read the PACIFIC RURAL PRESS than any other journal on this Coast.

Dewey & Co. {224 Sansome St.} Patent Agt's.

PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, AUGUST 5, 1876. [Number 6

The California Botany.

We have seen a copy of the first volume of the long expected botany of California. It is a handsome volnme which the botanist will rejoice to possess, and which every friend of the progress of the State will look upon with admiration. Althongh the State declined to make provision for its appearance, it is a work which does the State honor and which will find its way into many of our libraries. It will be the standard authority in this branch of our State's greatness. Upon its pages will be preserved the names of our self-sacrificing men and women of science who have labored for the trnth which it contains; searching every floral field from the crest of prince Sierra to the plains of the south country. We were much interested in a hasty review of its pages to note the names of our local workers, woven and interwoven in the graceful vernacular of the science. There we read the following, many of wich will be familiar to our readers: H. N. Bolander, A. Kellogg, C. C. Parry, J. G. Lemmon, E. L. Greene, D. Cleaveland, E. Palmer, G. W. G. Harford, Mrs. Pulsifer Ames, and Mrs. R. M. Austin.

For a general review of the work we cannot do better than quote a paragraph concerning it, which appeared in the last nnmber of the *American Journal of Science*, from the pen of Asa Gray, the far-famed botanist, who assisted in its preparation. He writes as follows:

"The volnme fills 628 pages, besides the 25 pages of prefatory matter, and is uniform with the publications of the Geological Survey of the State of California, of which it was intended to form a part, and may still do so, if the State soon takes it up. The present volume —the larger part of the projected work—is now bronght out by the State Geologist, Prof. Whitney, and by the considerate liberality of the following gentlemen, viz: Leland Stanford, D. O. Mills, Lloyd Tevis, J. C. Flood, C. McLaughlin, R. B. Woodward, William Norris, John O. Earl, Henry Pierce, Oliver Eldredge, S. Clinton Hastings. The scientific gentlemen engaged have done their part, and those who have done the State's dnty in the premises are understood to be ready to supply the necessary means for carrying the second and concluding volume through the press. When this is done it may he said that no other State in the Union has snch a well-ordered and complete flora.

"The introduction, by Prof. Whitney, giving some account of the undertaking, fills three pages. A note supplies some special explanation of the plan of the work; the remainder of the preface is occupied by two keys to the natural orders herein comprised; first, an analytical artificial key; second, a synoptical key, giving the orders in their sequence, or nearly so, and with reference to exceptional cases and anomalies. The two may snpplement each other, and greatly assist the ordinary student or amateur botanist, who cannot be expected to have the characters of the orders well in hand, nor to recognize aberrant members at the first glance. Such keys are very useful, almost indispensable; but it is impossible to make them perfect so as to provide for every case. They should be used as helps, not as an absolute reliance or as a mechanical substitnte for brains. The *Polypetalæ* occupy 276 pages; the *Gamopetalæ*, 346. Without reference to the scientific merits of this work—of which others will judge —we are free to pronounce its plan and its typography as unsurpassedly excellent."

As Dr. Gray says, we are in a fair way to have a State botany which will surpass anything in existence in this country. The public spirited citizens who subscribed the money to bring out the first volume are ready to enter the breach again for the second. It will, however, be more to the credit of our people if they would now assume the burden themselves. We are informed that the book will be placed on sale at $6 per copy, and all the money received from the sale will be put in to the second volume. In this way the forthcoming volume may pay for itself. We cannot tell where the book can be procured, for the details of sale are not yet arranged. There are now not more than a dozen copies in the State, but the remainder of the edition is expected.

The Horse's Foot and Its Diseases.—No. 1.

Perhaps no animal is of more general importance to the farmer than the horse, and of the horse, few, if any parts, are more important than the foot. It is true that the foot is not a vital part, bnt when we consider that for pnrposes of work, which constitutes the value of a horse to man, it must he counted of vital importance. A horse nnsound of foot is of comparatively little value.

As this is the fact, we have thought that a series of illustrated articles which might contribute to the general knowledge of the horse's foot, its anatomyand physiology, its admirable arrangement of structure to the work imposed upon it and the effect of certain diseases to which it is liable, would be both interesting and valuable to our readers. The subject is one which at least every farmer's son should nnderstand. We do not expect to advance anything especially new, but simply to state the facts as they have been ascertained by students of the equine anatomy.

We will begin right at the bones and show first how the foot of the horse compares with the feet of other animals. Although some may not have thought of it just in this way, it is plain that the horse is an animal with but one toe on each foot. Fig. 1 shows the bones of the feet of five different animals. Beginning on the left we have, first, the foot of the elephant, with the same nnmber of toes as the man; next, the hippopotamns with fonr toes, the rhinoceros with three, the ox with two, and the horse with one. Although there is this marked difference in the first glance, it is evident upon close examination that there is a relationship between the feet. In the engraving it will be noticed that the toes, or digits as they are called by the anatomist, are nnmbered from I to V. Although digits I and V are apparently lost beyond all trace, digits II and IV can be traced in rudimentary form even in the foot of the horse, and digit III, or the middle digit, remains to take the place of the five with which the series began. As each digit retires from active work below it seems to be called up higher, and we find digits II and IV almost knee high in the horse, appearing in what are called the "splint bones" of which we shall speak more at length in a following article. As these digits are withdrawn from their place in the front they become what scientific men call rudimentary. It is the claim of some that there has been a gradual change in the form of these different feet from one into the other; and the argument is supported by a claimed discovery of fossil foot-prints of a horse which had the elevated toes marked thereon. This is a branch of the development theory which we do not propose to discuss, but dismiss it with the remark that it would indicate a sort of development contrary to the common kind which claims that rudimentary organs become perfect, and not that perfect organs become rudimentary.

It will be noticed that each of the bones in these skeleton feet has a letter attached. Each of them has an anatomical name, which in the case of the horse we shall give hereafter when we present an enlarged engraving of the parts. For the present it will be of interest to let the letters stand as marks by which the bones can be traced from one foot to the other. Each one of these bones maintains its general usefulness althongh its form is somewhat changed. This appears from the examination of the different parts of Fig. 1, and more clearly, perhaps, in the more detailed illustration in Fig. 2.

Fig. 2 shows the bones of the foot of man and of the horse in contrast. Nos. I and II are the five digits of the human foot, and the second Nos. I and II are of the horse. The relationship between the two is shown by the numbering; that is, No. I in the foot of the man corresponds to No. I of the horse. It is seen that the first or great digit of the foot of man is lost, and No. II becomes the splint bone numbered II in the horse. A fine line drawn through the third digit of the human foot corresponds with the fine line drawn through the single toe of the horse. Beyond this digits IV and V are represented in the horse by the splint bone on the right, which with its connected bones upon the top, corresponds closely with them

In Fig. 3 we have an enlarged view of the bones in the fore leg of the horse. The group of bones at *A* are called the bones of the carpus. *B* is the cannon bone. *C* is the pastern. *D* is the coronet bone and *E* the coffin bone. We will describe all these bones more fully in our next article which we expect will be illustrated with an engraving of the bones of the fore and hind leg in comparison, and then the details of the admirable structure by which the horse secures his power of progression, which is so valnable to his owner, will be more apparent.

Fig. 1

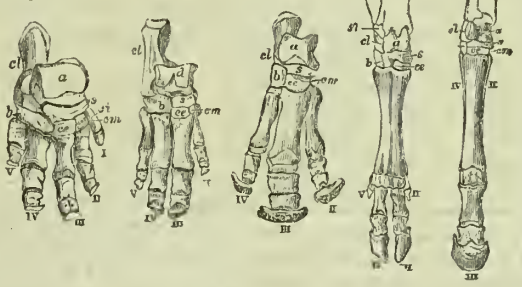


Fig. 2

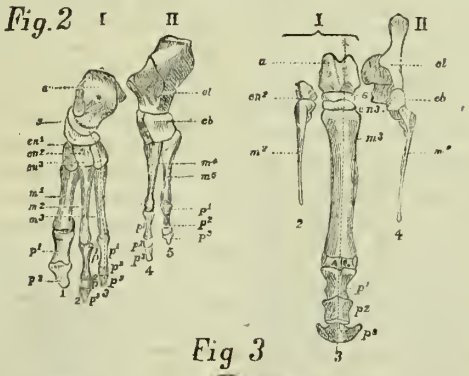
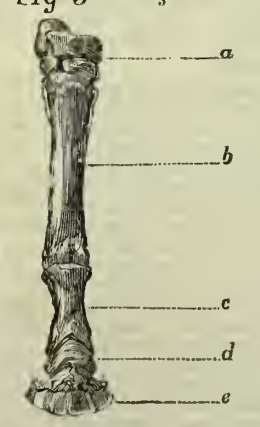


Fig 3



ANATOMY OF THE HORSE'S FOOT—NO. 1.

Black Walnut Lumber for California.—A gentleman from California, now in Chicago, is negotiating the purchase of a full-sized canal schooner to take a cargo of black walnut lumber from Chicago to San Francisco, via the St. Lawrence and Cape Horn.

A serious rebellion is brewing in China.

Aid for Boys and Girls.

The Boys' and Girls' aid society of this city is doing a good work and is worthy of all encouragement. The object of the society is to improve the condition of the homeless and neglected boys and girls of San Francisco. The society's rooms are at 68 Clementina street, S. F.

One branch of the society's work is to secure homes for the destitute, and perhaps some of our interior readers could secure from them boys and girls if they have need of them, or a warm place for charity's sake. From the second annual report of the society, we take the following outline of the work in this branch of the organization's effort:

"It is our purpose to give a home to all applicants destitute of friends, until we can find permanent homes for them, and thus far we have had to turn none away, though the scarcity of desirable places causes this branch of our work to be attended with many difficulties. Thus far we have made provision for 65.

"Our efforts have been directed of course, chiefly to children, but destitute men and women often apply to us for help. These we send out of the city if they will go, believing the country the better place for them. One young man who had traversed the city for days unable to find employment even for board, was furnished with transportation to the farming regions of San Jose valley, where he found work the same day at $20 per month. Of the others sent out in this way we have not heard, but as their fates have not since appeared to us, we trust they are safely harbored."

Combined Header and Thresher.

California inventors seem to be keeping pace with the demand of our farmers for labor-saving machinery. They shrink from no novel and striking principle for the application of force, and are staggered by no startling combination of machines. When the modern separator combined the thresher and the fan, a great advance was made, and now we hear of success with the patents which combines the separator with the header. We have no doubt our Eastern friends will think that we are a progressive people when they read the following, which we take from the Stanislaus *News:*

Many of our readers will remember the report, given by us last year, of the workings of a combined header and thresher in the harvest fields at this place. The invention was that of Mr. W. B. Rice, of this place, where the machine had been constructed by a company. Owing to the defects in the construction of some parts of the machinery, the combination was a failure as it then stood. There were many, however, who believed the principle and patent could be made a success. Consequently a new company was organized with part of the old members, and two of the machines were built the past year in the town of Stockton. The trial test of the first of the new machines has been made on the Sonora road, near that place. A letter, shown us from a practical machinist, and himself an inventor in improved agricultural implements, states that the combined header and thresher is proving a success. Some several hundred acres of wheat have already been harvested, the machine cutting a 16-foot swath, with the aid of three men and 16 mules, headed, threshed and sacked the grain at the rate of 46 acres per day, the machine, it is claimed, doing its work well. Our practical farmers can very readily estimate the saving there is in such work as is here reported to us, and which we believe to be from reliable authority. The news of the workings of this machine, if true in every particular, will mark a great event in this valley. Our farmers can then afford to laugh at the cheap labor system of Russia and India, with which they have to, to a great extent, compete. Forty-six acres a day of wheat cut, threshed and sacked, with the aid of but three men and 16 mules, is an item in time and expense to our farmers of no small consideration. Mr. A. Hewel and W. B. Rice, of this place, are still owners in one-half the patent.

CORRESPONDENCE.

Santa Cruz County.

EDITORS PRESS:—As you desire items which will be usefnl to yonr readers in regard to the industries and interesting places of Santa Cruz connty, I will send you a few notes taken of the

Pajaro Nursery,

At Watsonville, Santa Crnz connty, Cal. As you pass from the Mansion house, the palace hotel of Watsonville, towards the plaza, yon enter a smooth, brosd street, running half a mile at a right angle with the main street of the town, and terminating at ite farther end with an orchard gate-way entering the orchard and nursery of Blackbnrn & Waters. Your correspondent calling on Mr. J. Blackburn, who, with his interesting family, resides on the gronnds, wae received with a warm courtesy and shown all the interesting featuree of the place. The laud occnpied by this orchard and nnrsery is a paralellogram of a half mile in width and nearly three-fonrths of a mile in length, and containe 40 acres. Its western limit is the old San Jose road, and it extende to the Ssleipuedos creek on the esst, gently declining all the way in this direction, but otherwise ae emooth as a honse floor. The soil is a black loam and very prodnctive. At the weetern end is the orchard, containing 18 acres of trees, a large part being

Apples

of the Newtown Pippin variety. Forty-five hnndred boxes ot thee apples are sold annnally. The valleye of Salinas, San Juan and San Benito consume the moet of them. These valleys being dry do not produce apples to any conaiderable extent. The apples of this orchard are of ae good quality as any in this par of the State, excepting some favored mountain orchsrds whose fruit is snperior to any hut Oregon frnit, which I think excels in flavor.

Other Fruits.

There are also 200 peach trees quite young, 580 plnms, pruues, apricots, pears and cherries. The cherries are of the Oxheart, George Wood, B. Prolific and B. Tartsran varieties. They are superior in quality, and find a ready market near home at from 12 to 18 cents per ponnd, netting about $600 a year from these alone, and occupying one acre of land. Plume and prnnes are of a snperior quality and abnndant qnantity. They from three to five cents per ponnd at the orchard.

Peaches have hitherto been thought a failnre on the coast, bnt Blackbnrn & Waters having fnlly tested the matter, have found that there is no difficnlty in prodncing the finest fruit from Hale'e Early, and even some other varieties; and such has been the demand for their trees that they have been unable to furnish a snpply, and their stock the last season was entirely exhausted. These gentlemen are not so confident of the success of apricots here as are some of the neighboring farmers, who inform me that they do well in most localitiee

The grounds of the Pajaro nnrsery are not only well cultivated but also tastefully arranged. Ample and tastefnl bnildings are occnpied by Mr. B. and family. They are perfectly embowered with all kinds of fruit and evergreen trees. In front, and shading a fine walk and carriage drive, are tall eucalyptns, pine, cypress, pecan and persimmon trees, while on one side, overhanging the piazza and ontbuildings contiguous, are large English walnut trees laden with fruit. Sitting under these dense shades, one csn hardly realize that a very few years ago all this was an

Arid and Shadowless Plain,

And it is only ofter pleaeant converse with the proprietor that you begin to realize that all this wonderful change has been effected by patient industry snd the peonliar adaptabilities of soil and climate. Next to the orchard is the nursery, and beyond this, extending to the lower limits, are the grain and vegetable fields. In walking over and aronnd this place, so level and obscured by the dense growth of vegetation which surrounds yon, it is impossible to synthetize the place, or to obtain a complete idea of it, nntil you ascend some hight and overlook the

Beautifully Variegated Picture

At your feet. Accompanied by Mr. B., snd eepying a lofty windmill on the adjoining gronnds of the Hon. Thomas Beck, we ascended sme 50 feet, where we had an unobstructed view of the whole Pajaro valley. Under our feet to the south, are these grounds with their varied hnes of green foliage, the orange of the stubble fields, the crimson of flowers, falling leaves of its vines and shrubs; and hordered by a waving fringe of willows at its nether limit, it lay like a flower worked into a beautiful piece of tapestry, while beyond arose the house tops and spires of Watsouville, and still beyond, and extending to the very shore of Monterey bay, dotted with ranches and bamlets, lay the lower valley of the Pajaro, while to the north, east and weat, bonnded only by mountains more or less lofty, "like a checkered, placid lake," lay the remaining portions of this wonderful valley.

Mr. Waters, the other proprietor of the nurseries, and who has for several yeare occupied an honorable position in this county, has his residence a little distance from these nnrseries, in the town. His buildings are almost hidden in a towering grove of evergreens. At this place, smong other rare trees and shrubs, I saw a beautiful magnolia in full bloom.

Grain in Pajaro Valley.

The farmers of the beautiful "Psjaro" are in the midst of their grain harvest. As you ride along its grain-fringed rosds, you can see the header at work in every direction. On the higher lands bordering the valley proper the grain is all cnt and threshing oommenced. The yield of grsin, though very fsr below its usual amonnt, will be better than at first supposed. I was told by a gentleman largely engaged in thresbing thst the yield would be from 20 to 50 sacks per scre, bnt the farmers generally give the estimste of 12 to 20 centals. The grain is good in qnality, snd although it has been what is here called a bad sesson, on account of the excessive rains, yet, on the whole, the outlook for the farmers is better and more cheerful than at first supposed.

It is too early yet to give reliable etatistics of the incoming crop. Beans, corn and potatoee are looking well ae yet, althongh there are some rumors that potatoee in some localities are ebowing signs of the rot. Those planted on "sediment ground," that is, land which has been overflowed with water from streams, are said to be free from rot and other diseases of the potato. If this be true it is an important fact and shonld be generally knowu, as it would give direction to this interest in the futnre; potato growiug would be confined to such lands alone. C. N. W.

Watsonville, Jnly 24th, 1876.

Farm Notes About San Jose.

EDITORS PRESS:—In driving down the Alviso road the other day from San Jose, I was struck by the neat and attractive appearauce of many of the places on both sides of the road. These, said I to myself, are some of your beautiful California homee. Not merely houses, where people stay to eat, sleep and grow up in, with shelter and enclosurea for pigs, chickens, cows and horsee, and fields to grow wheat, barley, fruit and vegetables in. Yes, all these in great perfection, bnt mnch more besides. Here are beantiful and attractive country homes, where refined and cultivated people live, and love to oultivate all the social virtues of domestic life. Places, hallowed by eo many endearing associations, and so beautiful and attractive in all their adornments and snrronndings—all that taste, labor, neatnese and order combiued can do, to bind together the hearte of their inmates with more than a three-fold cord. And if these people are not contented and happy, they do not know how to appreciate the beautiful and usefnl combined, in their cosy, pretty homce.

These were some of my thoughts as I jogged along the dusty road, caeting my eyes wisttully to the right and left at the white cottages, half hid away among the orchards and vines that gave them cooling shade and luscions fruits. Some of the owners of these places I should like to name, and will do ao at some other time. But their placee are near to the road and can speak for themselves, and "gentle reader," you can see them for yonrself any day you may drive along thie same Alviso road. But there are some nice placee in this neighborhood which you cannot see from the road, so hid away back among the trees you must be at some trouble to see them. One of these I shall name. Having some business with

Mr. A. M. Ogier,

I turned down the long, shady avenue, which terminatee in a circular drive around and under a grand old live oak tree, whose great branches reach far out in every direction. This fine old tree is a leading feature of the place, and has given shape and form to all Mr. Ogier'e improvements. His house is built at a snitable distance from aud fronting it on the north. His stable and carriage houses front it from the west. Theu he has encircled it with a row of pine trees, like a wall of living green, through which are openinge for drives in varioue directions. Driving from the hot, dusty road into this cool, shady bower, Kitty pricked up her ears, slowed np and stopped short, snd I leaned back in my sest for a rest; and as soon as I had fnlly taken in the situation, I involuntarily began to feel for my pencil and note book.

Under Mr. Ogier's guidance I had a brief look at his place, with which I wae much pleased. In the buildings and adornments there has been no aim at show or prim artistic display; but everything wears the appearance of neatness, thrift, convenience and comfort. With the exception of a field of asparagus, the whole place is in fruit of varioue kinde; and I thought if the motto, *multum in parvo*, conld ever be applied to a fruit farm, it wonld be appropriate here. Mr. O. is demonstrating what can be done on a

Small Farm Well Tilled.

For instance, he has blackberries growing between his orchard treee, and strawberries between the rows of the blackberriee—three crops on the same land, all looking well and bearing good crops. But Mr. O. has good, rich land, and an abnndance of water for all purposes from a deep flowing well. Among the novelties of the place, Mr. O. has qnite a nnmber of Italian chestnut trees, eight yesrs old from the nnt, aud well grown for their age; their straight, smooth, glossy barked trunks and dark green foliage showing well for their health and rapid growth. But they are fruitful as well as highly ornsmental, bearing this year a good crop of nnts for trees of their age.

After a pleasant stroll over the place with Mr. O., and thoroughly testing the flavor of his different kinds of blackberries, I drove over to examine

I. W. Briggs' Fruit Farm,

East of the Alviso road near the Coyote river, which is rapidly taking on form and beauty. He has already about 80 acres in orchard, and intends planting the whole 120 acres in frnit trees of various kinds; and althongh his trees are only two years old from the nnrsery, they begin to make quite an orchard-like appearance; especially his 1 200 cherry trees, planted together near the road, make a beautiful show as to eize, ehape, color and uniformity of growth. The whole stem of the trees, from the ground up to the branches of the top, being thickly covered with a luxurious growth of leaves, thue effectually protecting the bark of the tree from injury from the snn. Mr. B. has 3,500 pear treee looking well, 3,000 plnm and prune making a good year'e growth. In the line of apple trees, besides other sorts, Mr. B. has a strsight thonsand of Newtown Pippins; 1,200 apricot and peach trees, gives him a good assortment in these lines of frnit.

Mr. Briggs has about 40 acres in strawberries from which he is yet shipping frnit. But what strnck me ae a big thing in the way of double crops on the eame land, was the whole

Strawberry Plantation Set in Onions.

A row of onions in each alternate space between the strawberry plants, the plants looking well, and the onions an immense crop. Mr. Briggs informed me he had this season, a nice sample crop of "Briggs' Early May peaches," from some of his young trees. They ripened here as early as the 20th of June, and were very fine ae to size and flavor, and even better colored than those grown at Marysville.

G. W. M.

Santa Clara, Cal., July 25th, 1876.

Notes from Los Angeles County.

EDITORS PRESS:—So much has been written about Los Angelee county, that extended general remarks would not be in order. I find many, like myself, agreeably snrprised at the

Extent of Good Land

Down here, and that so much of it does not need irrigation. Aronnd Compton, on the line of railroad from Los Angeles to Wilmington, Los Nietos or Downey City on the railroad to Anaheim, Artesia, Newport (formerly called Gospel Swamp) and Santa Ana, this is especially so. Then, about Westminster, Orange, Tnstin and the above named placee, abnndance of artesian water can be obtained at moderate depths and cost; at Los Angeles, Anaheim, Azusa and other places, irrigation by means of ditchee ie carried on. Particular inqniry ae to whether irrigatiou affects the general health, elicited assurances from all that it did not, owing to the refreshing and bracing breezee from the ocean on one side, and the mountains on the other. These ocean breezes also are nsnally tempered from all rawness as they pass over the conntry.

It does seem too bad to see so

Much Land Withheld

From the market by original owners, or thoee who have bought grants. Bnt it is only a question of time when assessing these lands np to their full value, the property falling into the hands of heirs, and the advance in the valne of and demaud for this land, will secure ite subdivision and sale. I passed over one large ranch, used only for sheep and cattle, on which I was told the assessment for taxes had been raised from 75 cents to $20 per acre. Good and just!

One of the most gratifying features of Southern California for a home, is the attention paid to

Schools.

Going to Artesia I noticed a large building, asking what it was, I was told that the company selling the land, built at a cost of about $5,000, and gave to the district, the handsome school house, before any land was sold or dwellings put np. That is wise forethought, and a great attraction and advertisement. They have an excellent school tanght there by Miss M. M. Moore, and Sunday school and church are regularly held in the same place. This is a temperance colony, and I organized a very promising lodge of Good Templare. Indeed a lecturer on temperance could not ask better attention and more kindly appreciation than wae accorded during thie tour.

There ie mnch less native population than one would expect in Southern California. This is especially so outside of the larger towns; and in many of the newer settlements I saw none at all. Many Eastern people with their homelike waye and feelings are in these parts, and others are coming all the time.

Approaching Santa Ana, I asked the stage driver what the large bnilding, I saw towering up was? The reply was the new school honse. Two new buildings near were the Baptist and Methodist chnrches. The old school honse, quite a commodions bnilding, is to be moved to another part of the district, while a third is to be built near the Newport part of it. These schools are multiplying in this new country. I will conclude by transcribing a few rongh notes, bnt space will forbid my speaking of anything like all the places visited.

Westminster.

This is a strictly temperance colony, some six or eight miles from Anaheim railroad depot. From its general air of peace, industry, comfort and thrift, you might easily infer that not a drop of intoxicating liqnor is sold there. It was started by the Presbyterians, and is a very moral, quiet place. Mr. Webber, a minister, obtained the right from the Los Angelee Land company, to sell to any that he thought wonld make good citizens, laud at $13 per acre. Unsold land wae to increase in price 50 cents per acre a year to pay interest, etc., till the 6,000 acres were sold. Mr. Strong, another preacher, laid aside by throat disease, has taken the place of Mr. Webber, deceased, as superintendent, and has control of 2,000 acres more. It generally sells in pieces of from 40 to 160 acres, bnt 20 is said to be ample for one family if they have water, so thst they can raise two or three crops of grain and vegetablee in rotation, and four to six of alfalfa. Artesian water is easily obtained. unimproved land ranges from very low figures for alkali land (believed to be redeemable, however) to $30 per acre for the best. Gardens and orchards are being made with great success. Last year they had 5,000 vines in bearing, and now many more, most raising grapes—the muscat.

I was much pleased to look over Brother Strong'e nnrsery. Orangee and other semi-tropical fruits do splendidly. And another enrpriee was to find the more northern fruits, applee, pears, peachee, plums, quincee, currants, gooseberries and snch like, doing as well as they can anywhere, and needing but little irrigation. Strawberries are a specialty in all these regions, and a sancer of strawberries or strawberry pie was a very common and acceptable occurrence at hotels and private honses.

The blood-leaf peach, a seedling first fonnd growing at the grave of a celebrated Confederate general, in Kentucky, is qnite a favorite here, for ornamental purposes, though the first is not worth much.

A variety was the wild goose plum, so named from the first tree fouud growing from a pit in the craw of a deceased wild goose. The plum is large and treee bear early. Saw some on a year old tree.

Brother Strong had strawberriee planted in January, that in June with one watering, had borne and were still bearing heavily very fine berries. Apples are qnite a success. The red Junes always bear two crops, in June and October. Date palms from the seed were plentiful. Peach trees qnite yonng were loaded and have to be thinned. The moorpark Brother Strong believee to be ahead of all others. To those who have never noticed, it is interesting to learn how

Seedling Peaches for Budding and Grafting

Are raised. Thrown into a little bed 33 by three feet, by sacksful and lightly covered with earth, they grew thick enough to take ont 18,000; and a large number that did not germinate this year will next season. Brother Strong imports from the East and Oregon apple and other stock. He saves 85 per cent. of them and finds it cheaper than to raise them.

It is a wrong impression that

Potatoes

Can't be raised in the south of California. No where can a better quality or larger quantity per acre of early Rose or Goodrich be raised. On three-fourths of an acre 75 sacks were taken out. He has about five acres of orchard, and constantly extending. I need hardly say he takes the RURAL PRESS and reads it. With profit he might write for it. He reports it very healthy. His own health is improving much. So say most of the invalids who came for health. A wharf only five miles from town is talked off. They are bnt five miles from Anaheim railroad depot. I forget how far bnt probably bnt eight or 10 from Anaheim landing on the ocean. A most excellent and home like hotel is kept by Messrs. Aldridge & Gardner. Everything is so clean and wholesome, the food is served in abundance and good shape, and the ladies' attendance npon the table is most polite and assiduons. They are good temperance and Christian people. Society is excellent, the *genus* loafer, druukard and hoodlum it unknown Churches, Sunday schools, schools and two literary societies are kept up. In a short time each house and lot will be comfortably and tastily fixed, as our old homee used to be. The

Artesian Wells

Are a beautiful featnre. Mr. Thomas Edwards utilizes his for dairy work. By running it over a wheel it turns with a great rapidity, which can be regulated at pleasure by a single cord, a large churn that will make 60 ponnds of butter (I think he told me) at a single churning.

Bnt I must close. In the above I have dwelt especially on the social featuros, health enitability for homee, etc., because many of my friends and of your readere count that of a prime importance. One thing I forgot—wood. It is naturally scarce on these plains, and the mountains are a long way to go. But they

raise immense qnantities of corn cobs which snpply the stoves; and willows grow in three or fonr years from twigs to lnxnriant trees of ample dimensions for the finest shade, ornament, or nse for fencing and fires. More anon if yon desire. J. W. Webb.

Lompoc, July 19th.

We certainly do desire more, Mr. Webb. Fresh notes of new and successful doings are valuable to all onr readers. Let each one have the bright thonghts and successfnl practices of all to bnild npon, and who can tell what degree of advancement we shall all obtain.—Eds. Press.

Seed Growing in Santa Clara Valley.

Editors Press:—From present indications the business of seed growing promises to become, in the near future, an indnstry of some importance on this coast; especially in this valley. Within the last few years there has been something don: here by various persons in this business, and, so far as I am informed, all their experiments have proved quite satisfactory and enconrsging. When Esstern dealers become fully satisfied of the wonderful adaptation of onr climate and soil to produce seeds of superior quality, as to brightness, weight and vitality, we may reasonably expect a large increase in this interesting branch of bnsiness.

As to climate and soil, we have on the coast variety enough to snit nearly the whole family of plants; and in this valley, our mild, even climate; great vsriety of soil; long, rainless, snnny snmmers, with cool, invigorating sea breezes, we seem to have all the elements and conditions necessary to grow, matnre and cnre the most perfect seeds of many kinds.

I was led to these tnoughts the other day by seeing a small field of seed onions near San Jose on the north; the plants so remarkably strong and beautiful in sppearance that I was led to inquire as to their variety and manner of cultnre. I found them to belong to

Mr. A. M. McCallum,

A gentleman who has made the science of botany a special study, and who is engaged in experimeuting here in growing seeds in our climate, in view of a permanent business. He proposes condncting his business on scientific principles, aiming at the best resnlts, as to the qnality of his seeds. For instance, the onions I noticed were of the Yellow Danver variety, but were selected with great care. Mr. McCallum informed me that every onion planted was of large size and perfect in shape, selected from a large quantity of bulbs. They were planted a foot apart in the row, and in rows far apart, in sandy soil, and thoroughly cultivated without irrigation.

Mr. McCallum is engaged in experimenting in other seeds, bnt I had not time to examine fnrther specimens. G. W. M.

Santa Clara, Cal., July 26th. 1876.

The Dairy.

M. L. Gray's Dairy.

We had the pleasure, one day last week, of visiting the dairy of Mr. M. L. Gray, near Lafayette, in Contra Costa connty, 14 miles northeast of Oakland. Mr. Gray has 125 cows; 90 to 100 being now in milk. He has made this season about 300 25 ponnd cheeses, which he has sold chiefly in the Oakland market. In the hight of the season he has made 230 ponnds of cheese per day; he is new making 100 pounds. Mr. Gray has a good curing house, and is enabled to gain the full benefit of the very even temperature which prevails in the locality where he lives. The average temperatnre is abont 70 degrees in the warmest part of the year. A few days of unusual heat have reached 92 or 93, but this has only been for a few honrs at a time. The nights are always cool.

As the season of fresh feed is short in his locality, Mr. Gray sows from 100 to 120 acres of wheat for feed purposes only, and finds it eqnally as good for cheese as the natural pastnrage. His pasture is very free from weeds, and the feed consists chiefly of wild oats and bnrr clover. No one in his region has tried altalfa thoroughly for the dairy. He pnt in a piece but the gophers took it. He believes in having good feed for his cows, and if he owned the land he is dairying on, he would grow fodder corn and beets for feeding. His stock is mostly grade Durham.

Marketing Cheese.

Mr. Gray is firmly convinced that the present plan of marketing cheese as practiced by most dairymen is not the wisest. He deprecates the practice of sending great masses of cheese to San Francisco at the time when the make is largest and letting it accumulate in the commission stores. Not only are great quantities of cheese spoiled by being piled up in the city, for their are no facilities for proper care of the prodnct, but the price is forced down ruinously low. The effect produced upon the market by these accumulations of cheese is very easy to see. The shelves of the stores are fnll and tons are piled up on the floor all around. The bnyer sees the large amounts and gains purchases at low prices. Mr. Gray believes that the proper place for the cheese is in the cnring until the market will tske it at a good price. In the curing room it csn be tnrned snd handled so as to preserve its quality. The market for old cheese has alwsys been good, but California dairymen have not often profited by this fact. They have rushed in their cheese and sold it at low prices, and then, when the time of good prices comes, the Eastern cheese is bronght in and takes the rewards. The Steele Bros. and some others have profited by marketing their cheese at the proper time, and have preserved its quality nntil that time by taking good care of it in their curing honses, instead of letting it lie around in the city stores. Mr. Gray thinks the importation of Eastern cheese can be largely cnt off by a wiser marketing of the home product, and he hopes this question will be fully discussed at the October meeting of the Dairymens' association.

Manufacture.

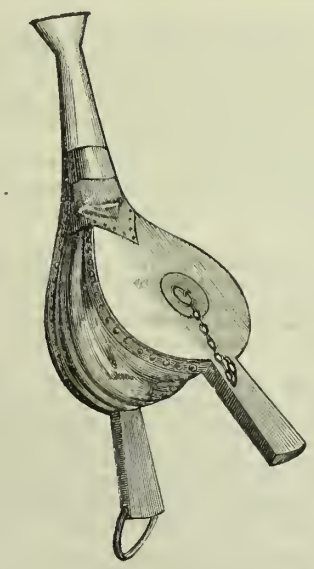
Mr. Gray gets his milk down to about 70 d:g. before he leaves it at night, by letting the cool water run around the vat. In the morning the milk generally stands at about 60 deg. He sets at 85 to 86 deg. and allows abont 40 minutes for coagulation. He takes about one and one-half hours in the scald, and heats up to 98 or 100 deg. It is his practice to hold the heat at 100 for 20 or 30 minutes, believing that he gets a cheese with better keeping qnalities. In the spring he makes a soft cheese for immediate nse. In this case he draws off the whey as soon as the heat touches 100. This cheese cures in 30 days and is soft and buttery in its consistency.

Horticulture.

Sulphur Bellows.

Editors Press:—I have to apologize for not giving you, any sooner, my promised method for making a sulphur bellows out of a common one, bnt hope that the information will not be at this time the less welcome by yonr readers.

To be more clear, I will add to my letter a photograph of my own bellows which you might engrave for the Rural. You will notice in the first place, that the bellows open very widefully six inches; the handles being fonr inches in length; the tube three inches, with a little funnel at the mouth of it. The sulphur is put in throngh an orifice made on the npper side of the bellows, which orifice is kept closed with a cork stopple; the bellows inhaling air by the mouth of the tube.



Home-Made Sulphur Bellows.

If any of your readers want to make a sulphur bellows out of a kitchen one, as is found in any hardware store, the alterations they have to make are these: First, take out the valve inside, and nail tight over the orifice a piece of leather or tin, so that no air will get in through that part of the bellows. Then bore a hole one and one-half inches wide on the upper side to put the sulphur in, and keep it closed as shown in the engraving. Last, take out the commou iron tnbe and put in its place one made out of tin, from three to four inches in length, with a funnel one and one-half inches long and two inches at the opening; a piece of small size holed wirecloth being soldered inside, one-half inch from the edge. If possible, remove the leather and have a wider one in its place, the common bellows not opening wide enough for the purpose of blowing sulphur on plants.

This is not indispensible, bnt when a bellows opens widely it is a great deal less fatiguing to work it; especially so if working it for a whole day.

It was by blowing sulphur on them that I got rid of lice on honeysuckles, and mildew on rose bushes, particnlarly the beautifnl "giant of battles" whioh g-ts every year covered with this cryptogamous affection. I have had no chance yet, nor do I desire to have, to try on the cabbage lice either sulphnr or slacked lime.

It is better to blow sulphur on affected or infected plants in the morning, before the leaves are warmed up by the sun's rays; but it must not be blown on them when wet or with too strong a breeze blowing at the time.

Felix Gillet.

Nevada City, July 18th, 1876.

We thank Mr. Gillet for his useful hints. We trust he will not fail to inform us of any other devices which he finds valuable in his experience.—[Eds. Press.

Stock Breeders.

Baden Farm Herd of Short Horns.

On Friday, of last week, we visited the farm of Robert Ashbnrner, Baden station, San Mateo county, to examine his herd of thorongbred cattle. In his breeding, Mr. Ashburner has aimed at the production of milk, and has imported stock from England of the best milking strains of Short Horns. The inspection of his herd and the success of his dairy show that his enterprise has attained the end desired. We are especially pleased when we can call attention to a herd of thoroughbreds bred for

Useful Qualities,

For this is a line of progress in which every practical dairyman and stockbreeder is interested. We propose to review Mr. Ashburner's cattle candidly and in a spirit of fair criticism, in order that our readers may learn of his stock. He has lately issued a private catalogne, and, for convenience, we shall follow the order therein laid down. A note at the beginning of the catalogue says that "The number before each bull's name refers to the corresponding number in the English or American Herd Book. The number after each bull's name refers to the American Short Horn Record." Therefore, in making our uotes, we shall follow the same plan.

The Cows and Heifers.

The catalogue opens with no less a number than 10 females of the Fletcher family, all descended from the imp. pure Bates cow Frantic, by (10,167) 4th Duke of York, 182. With the exception of the out-crosses of (13,114) Water Prince, 2,942, and Water King, 4,558, all the bulls in the pedigrees are practically pure Bates bulls, and all trace to cows owned by Mr. Bates himself. The first cow in the catalogue is Camilla, by (2,500) Apricot's Gloster, 1,384—a bull with four Duke crosses. After which comes the celebrated Princess bull, Belvedere, that Mr. Bates used to improve his Duchesses with. The next bull is an Oxford, followed by a Barrington bull, with two Dutchess bulls beyond. Though Camilla is 16 years old, Mr. Ashburner has hopes of having another calt or two from her, as she is a fresh looking cow for her years, and has just been dried of her milk, after milking nearly a year and a half.

No. 2 is Constance, a daughter of Camilla, by her own son, Mark Antony, a young cow of plenty of substance and depth of carcass, and in every way likely to make a fine cow, but is rather low in condition just now, having been only just tnrned out of the dairy. She is six months gone in calf to the imp. pure Bates bull (34,364) Kirklevington Duke 2d, 5,368, from which nnion Mr. A. expects something superior in qnality, as well as breeding.

The next on the list is Yellow Rose, by Mark Antony; dam, White Rose, who died a few months ago, and has been known to give seven gallons of milk per day when in her prime; and her daughter, though not likely to be so great a milker as her dam, has milked herself into lower condition than people generally think Short Horns ought to be kept. She, too, is in calf to Kirklevington Duke 2d, and, being one of the so-called pure ones, Mr. A. may look for something valuable from her also; his principal errand to England last year being to secure a suitable Bates bull to use upon this family of cows.

Then follow five of the same family got by Water Prince, and two by Water King, which latter, in our opinion, are the most promising looking animals in the whole 10 of the family, nnless, indeed, we except Garland and Goldleaf, both by Water Prince, and out of Camilla, which are models of beauty of outline and symmetry, and, besides that, good at the pail.

When we ask Mr. A. why he made the above out-crosses on this family, he says: to improve the cattle. It is no more of an out-cross than Usurer was npon the Dnchesses, or Marquis of Carrabas, Romeo's Oxford upon the Oxfords, (and we may add the pure Booth cross of Lord George, which exists, indirectly at least, in so many of the celebrated Dukes of Airdrie), and when we compare the three that have not this out-cross with the animals got by Water Prince and Water King, we mnst confess that we think the object has been accomplished. Both the bnlls are descendants of the well known imp. Pansy, by (76) Blaize, 691, than which a more useful family of Short Horns does not exist. They are one of the standard families of olden times, with good pedigrees, as sound as the specimens—of which there are several of this family—in this herd appear to be in constitution and all nseful qualities combined.

Next after the Fletchers are four of the celebrated Princess family, by (252) Favorite 204, three of the Gwynne branch, and one of the Elvira branch—all selected and imported from England by Mr. A. himself. As to the pedigrees of these animals, they speak for themselves, tracing back, as they do, to the oldest and most reliable foundation of any of the Short Horn families in existence. As to the animals themselves, they must be seen to be appreciated, any fault that wonld be found with them would be more a matter of fancy than anything else. One might find fanlt with the colors, another with the tnrn of the horn, and so on, things which Mr. A. himself, seems very indifferent about (so long as the nseful qnalities of the animal are not affected), too much so we think, especially if he had imported them for sale; but as they are intended for the foundation of a futnre herd, any trifling objection of that sort can no doubt be bred ont.

There is yet another imported heifer, Rose of Raby 2d, considered by many the plum of the herd. She is a red roan, of fanltless color, with horns to suit the most fastidious faultfinder. She is six months' gone in calf to Kirklevington Duke 2d, and Mr. A. has already refused some tempting offers for the prodnce, which will be practically a pnre Bates; every bull in the pedigree tracing to cows which were owned by Mr. Bates himself. All the five imported females are of unexceptionable qnality having an abundance of soft, silky hair, and an even covering of soft, springy flesh—qnalities, we think, that are too generally overlooked by many of onr American breeders.

If we were allowed to choose one of the above five to suit our own particular fancy just now, we would be very apt to take the Gwynne heifer, Oxford Minstrel 2d, by Duke of Oxford (31,004), who is now within six weeks of calving to Kirklevington Dnke 2d; she is a short legged, square, deep bodied, round ribbed heifer, fine boned, and very neat in all her points. Especially does she excel anything we ever remember seeing, in her neat snngly laid shonlders; and we cannot but wish that she may produce something snperior for Mr A., as the first fruits of his enterprise, in importing such highly bred animals into onr State.

But we must pass on to the Pansy family, of which there are ten females, the first and oldest on the list being Sarah, by (13,057) Turk 2,873, (a highly bred bull tracing to imp'd Princess by Lancaster, 369.) She is a nonle looking cow, long, straight and deep of carcass, which is still further deepened by a capacious udder, now yielding daily a full six gallons of milk. She is somewhat thin of flesh, having calved twin heifers lately, one of them being dead, however, but the other is a healthy growthy looking calf, and will no doubt come out something at some fnture day. Besides Sarah and her daughter, there are three others (all roans), of the same branch, descended from the well known imp. Pocahontas 1st, by 1,638 Harold 2d 2,016; of the same family, we next have Cleopatra by May Duke 2,300, (a Bates bull of the Fletcher family), followed by three other Bates bulls, (Mad Antony, twice over, and then Echo of Oxford.) This branch has more crosses on top of the imp. cow, Pansy, than the Pocahontas branch has, and has been a little differently bred. Cleopatra is a level, square, deep bodied cow, of almost perfect symmetry, and is a great milker, now giving about five gallons per day, keeping np to a good quantity all through the season. After her comes three of her danghters, and one granddaughter, two of them by Water Prince and two by Mark Antony; one of them, Cypress, by Water Prince, being just due to calve to Mark Antony. There are also two fine, large cows, Lady Farnham 1st, now dne to calve to Mark Antony, and Miss Maggie—at present a a doubtful breeder—both finely bred, being descended from Mason's No. 6, by Dr. Syntax. Three others of shorter pedigree make np the remainder of the herd, which now numbers 30 females.

The Bulls.

There are four bulls in nse in the herd. the oldest and first in the catalogne being (12,393) Mark Antony, 2,275, got by the Cragg's bull, Mad Anthony, and ont of Camilla—the first cow in the catalogue. He is now nearly seven years old, but we are not surprised that Mr. A. should retain so old a bull for use in his herd, excelling as he does in individual merit, his produce also being of high order of merit.

No. 2 is Water King, by Water Prince, and out of Cleopatra, and if the sire was as good as the son, we do not wonder at his owner using him on the Fletcher family; but Mr. A. sticks to it that the sire was better than the son. When we wonder where, he answers: he had a greater wealth of flesh, and a more perfect bull's head. Well, perhaps Water King might be a little broader between the eyes and look better for it; as for the quantity and quality of the flesh that he carries, we are not going to find fault with him in either respect. His carcass is about all that could be desired in an animal; straight as a line above and below, with deep flank, plenty of thickness through the heart, a deep, full and prominent brisket, fine long hind quarters and full twist, with a full round barrel, does not leave much to be desired in a bull. Certainly his calves are proof of his good breeding qualities.

The next bull is imp. (34,364) Kirklevington

(Continued on Page 98.)

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Grangers' Business Association.

It becomes necessary to remind those who have done and wish to do business with the Grangers' Business Association, of the change of business manager, Mr. T. J. Brooke retiring from the house and Mr. Daniel Inman assuming management of the same. Therefore it is desirable that all communications for or consignments intended for our house, should hereafter be sent to the "Grangers' Business Association, San Francisco."

Amos Adams,
Sec'y Grangers' Business Association

Copies of the Constitution and By-Laws of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

P. of H.—Subscribers who pay fully one year ($4) in advance for the Pacific Rural Press can receive the California Patron *free*, or other premiums. See our premium list in another column.

Grange Directory.—A full list of Subordinate Granges, Masters and Secretaries, of California and Nevada, is published as often as once a quarter in this department. See issue of July 8th for latest insertion.

The Wheat Meeting.

Last week one of the city dailies, in its notice of the Grangers' wheat meeting, stated that a wheat vessel had been chartered for £2 10s.. This was incorrect. Mr. Cressy, of the Grangers' Bank, informs us that it was impossible to get a ship at those figures. He authorizes us to state that a first-class A A 1 vessel has been chartered for Liverpool direct at £2 17s 6d. An advertisement in another column calls attention to this fact.

Although the meeting was secret, and we are authorized to print no official announcement of its work, there are some points of current news concerning it which will interest our readers. The *Chronicle* writes as follows:

The result of this Convention is most gratifying. A few of the leading Grange officials, foremost among them J. D. Blanchar, took hold of the problem and wrestled with it, overcame the obstacles, and secured a harmonious meeting, which not only resolved to do, but will do great things.

The Farmers Will Ship.

While the details of the convention cannot be made public as yet, it may be safely said that the farmers will ship wheat to Liverpool direct. There was an immense amount of wheat represented. One man, having in store over 700 tons, declares his intention of holding it till ——freezes over before he will allow the wheat ring to gobble all the profits. He will be the first to furnish wheat for loading. Other large wheat raisers expressed a similar determination.

Cure For Hard Times.

One of the most prominent farmers was interviewed yesterday, and asked to give his opinion of the new movement. This he declined to do, any further than to assert that the time has come when the farmers must free themselves from dependence upon San Francisco capitalists, or cease producing wheat.

Reporter—What is the effect of this upon the industries of the State?

Mr.——.—The effect is felt by all classes, not only by the farmers themselves, but by your wholesale merchants here in the city. Times are hard with the farmer, because he has no ready money, and cannot get it, except by sacrificing his grain. He has run bills at the country stores, the proprietors of which, in turn, are in debt to the San Francisco wholesale houses, and cannot pay up until the wheat crop begins to move. A general stagnation, no less detrimental to business in San Francisco than in the country, is the result.

The Feeling Here.

This movement of the farmers, looking towards the annihilation of the wheat ring, is not only not opposed by the merchants in the city, but they are, with a few exceptions, radically in favor of it, as it will put the wheat crop on its way to market and bring back money for general distribution. The present Liverpool prices, and the high rate of tonnage, render it utterly impossible for merchants to ship wheat. Freights have been placed at a high figure by the action of the wheat speculator. If the plans of the Grange convention are carried out the vessels arriving at this port will not have to lie idle a week, but, as fast as they come, will be loaded and sent to sea, thus pouring a gradual but continuous stream of wheat into the Liverpool market, instead of rushing a hundred cargoes in at one time, creating a panic in prices. By these means vessels can afford to carry wheat at less rates than at present, when they are compelled to ride at anchor for 30, 40, or 50 days. Somebody must pay for this unemployed time, either directly or indirectly, and in the end it comes out of farmers' pockets.

Independent Farmers.

It is a surprising fact that the farmers of the State are in much better condition financially than has been supposed. From the delegates we learn that the storehouses throughout the State are being rapidly filled, and the larger portion of the grain produced this season is in the hands of men able to hold it for 12 months if need be. The proceedings of the convention will be printed and sent to the various Granges in the State and the plans fully elaborated. Large wheat growers are coming forward and offering to furnish wheat, and this action on their part will relieve the small farmers who are obliged to realize immediately. It will only require a united and determined action to pinch the ring severely, and already they are beginning to hedge. Rumor says Jim Keene has just purchased 13,000 tons of wheat in Colusa county at $1 35, equivalent to $1.65 in this city, supposed to be for loading vessels whose lay days are expiring. The supposition is that he was compelled to sacrifice 15 cents on wheat in order to save demurrage. A capitalist of this city yesterday signified his willingness to loan money to the farmers on country warehouse receipts, which has never been done before, and hence may be taken as a decided victory. Another meeting is called to be held in San Francisco on the 22d of August to complete the plans and prepare to carry them out. If, by this movement, English capital can be directed to this coast the day of the wheat speculator will come to an untimely end.

Fruit Growers' Meeting.

A meeting of fruit growers was held at Golden Gate Grange on Tuesday evening, and action was taken which promises to be of general value and importance. Reports were made of the success of the recent shipment of fruit to Philadelphia. It will be remembered that we lately made mention of the starting of the shipment. The new model car proved very satisfactory, and its facilities for ventilation and refrigeration were proved good. The car reached Chicago in good order, but was damaged in transferring and it was necessary to move the fruit to a common refrigerator car and go on by slow freight. The Pennsylvania railroad showed the enterprise marked favors, furnishing passes for the men who accompanied the car and delaying a train to facilitate the forwarding of the fruit. Mr. Chandler, the superintendent of the Pennsylvania road, has placed the managers of the enterprise under great obligations by his unceasing efforts for the success of the shipment.

Some of the fruit was somewhat damaged by the leakage of the refrigerator, and it arrived in Philadelphia on July 4th, in the midst of the hottest weather ever known there. These facts made the retail dealers somewhat slow to take hold of the fruit, but the account of sale gives the shippers splendid satisfaction. The prices for the part of the fruit which arrived in good order are very high, and the whole enterprise pleases the shippers so well that they are going on with the shipment at once.

Fruit Brandy Resolution.

At the meeting the following resolution was adopted, and the Secretary was directed to forward a copy of it to each of the Senators and Representatives of California in the Congress of the United States.

Resolved, That the interests of citizens of California engaged in the manufacture of brandy from grapes demands such legislation from Congress as will permit the bonding of said brandy and making payable the national tax thereon when removed from bonded warehouse; that the act of Congress which recently passed the House of Representatives permitting such bonding and payment of tax, if it becomes a law, will give the desired privileges, and if it so becomes a law prior to the adjournment of the present session of Congress, this year's grape crop in California could be made much more remunerative to producers than otherwise, and that the passage of said act will add materially to the wealth of this State. Therefore, Senators from California are earnestly requested to favor the passage of said act and do all in their power to have it become a law.

Fred K. Rule, Secretary.

An Appeal to Fruit Growers.

The success of the new enterprise in shipping fruit commends itself to all fruit growers, and it is hoped that there will be a large attendance at the meeting on August 8th. There is held a meeting in convention form, to which all fruit growers are invited. We have received the following official card from W. M. Blanchar, of Golden Gate Grange:

Editors Press.—The fruit growers met at Golden Gate Grange on Tuesday, August 1st, and adjourned to meet at the same place on Tuesday evening, August 8th, to complete organization and commence shipping fruit to Eastern markets.

The experiments of shipping made by a few individuals in forwarding cars having demonstrated the practicability and the advantages of the movement and the benefit gained through the new patent refrigerator car, the Convention requested that we extend an invitation to the fruit growers to meet with us as above stated and urge upon them the necessity of a full representation from each district. Hoping our efforts will result in a large representation on Tuesday evening, August 8th, at 7½ P. M., at Huddy's hall, 909½ Market street, San Francisco. I am yours, fraternally,

J. D. Blanchar, M.

National Grange.—The Executive Committee have recently announced that the next annual meeting will be held at Chicago, on Wednesday, November 15th.

From the Granges.

Watsonville Grange.

Editors Press:—I had the pleasure of attending the meeting of the Watsonville Grange of P. of H., on Saturday, July 22d. They use a fine hall, centrally located. Judging from what I saw and heard I think this Grange has a "wide-awake" membership. Owing to the pressure of the harvest there was not a large attendance, but what were there, were of the right sort. The officers of this Grange are A. Cox, M.; H. C. Struve, O.; Mrs. Owen Tuttle, L.; and B. Dehart, G. K. After the reading of some excellent selections by the Lecturer, the subject of the "grain interest" as now threatened by the monopolists of your city was discussed, and a vote taken expressing approval of the call for a convention to meet in San Francisco, July 25th, to take measures to resist any encroachment upon the rights and interests of the farmers. Bro. D. Tuttle was chosen as a delegate to represent this Grange in said convention, and who was authorized to furnish the resolutions passed upon this subject to the Rural Press for publication. The Brother selected will creditably and efficiently represent this valley in the interests to come before that convention.

While listening to the pleasant interchange of thoughts and expressions of feeling by these brothers and sisters—who seemed to think each other's interest their own—I was deeply impressed that this organization is a great moral and social power in this community, and is giving a healthful tone to society. The labors of the Lecturess are very efficient in this direction, and I heard her praises in the mouths of all. I will only say that my impressions in regard to her and the other sisters present are given in the last chapter of Proverbs, from the 10th verse. With such influences preponderating as are fostered in this Grange, we may predict a happy future to this valley.

C. N. W.

Watsonville, July 22d.

Ferndale Grange.

Editors Press:—I have been waiting for some one better qualified to give you the news of Ferndale, but it seems that they are either too busy or too lazy. I do not blame the farmers for not writing much. We have too much to contend with, and too many enemies, but yet our Grange is in a healthy state as to the number of members.

The Ferndale Grange with Matole Grange are running a good co-operative store and doing a good business. We were burned out last October, and had to sue the State Investment insurance company. They put us off the first term of court, but last week we got a judgment against them for $5,000, interest and cost of suit.

The notorious middle men, with the storekeepers, speculators, and even the lawyers are trying to break us up. They tried to ruin our credit, both at home and abroad; why cannot these harpies let us farmers have a chance to live? We certainly have a hard time fighting weeds, insects and wild animals.

At this point we take the liberty of reserving two pages concerning general farming experience to print by itself next week.—[Editors Press.]

In order to help ourselves we must combine. Co-operation has done much for other classes. We see by co-operating that tailors, shoemakers and even coal miners have improved their condition by shorter hours of work and higher wages.

The farmers are the last class in our civilization to try to help themselves by co-operation, and when they do try, what a terrible cry is raised by all classes. Even some religious people think it a sin to join the Grange, and they call us all kinds of names except gentlemen and ladies. I think our only salvation lies in a stronger and a more compact brotherhood.

Brothers and sisters, make up your minds to stand by each other; for united we stand, divided we fall. We must expunge the word "fail" from our dictionary.

Brutus.

Ferndale, Cal., July 29th, 1876.

Santa Maria Grange.

Editors Press:—Our Grange is beginning to revive again, the members are becoming more interested and are taking new courage.

It has pleased our Heavenly Father to take from our noble few, one of our faithful brothers—one that in the hour of our severest trial dared call himself a Patron of Husbandry and a member of Santa Maria Grange. I herewith send preamble and resolutions in relation to our departed brother, passed at the last meeting of our Grange.

I have been rather severly handled by Mr. McElhany for the last letter I wrote to the Rural Press. Perhaps the shoe fit Mr. McElhany a little too tight to be comfortable. Santa Maria Grange has for some reason, that is obscure to the clear mind of Mr. McElhany, caused the word "expelled" to be written in red ink in the roll book across the names of about 50 of her unruly members, which fact may also have something to do with Mr. McElhany's disturbed equilibrium.

We have had an unprecedented amount of hot weather within the last month, which has terminated in a rain which is in progress this morning while I am writing this letter. The rain has not done any damage yet, but it may before it is over. Harvest is progressing very well, although the chances are that the fall rains will overtake some of our farmers with their grain unprotected. Business is lively, but money is very scarce. The farmers experience considerable difficulty in getting money to pay the harvest hands.

M. D. Millea.

Santa Maria, July 23d.

[We are sorry Mr. Miller alludes again to the matter of discord, which cannot be improved by newspaper discussion. We admit the simple fact of the action of the Grange and omit other allusions. We trust we shall be spared from receiving from our correspondents in the future anything which the types cannot mend but only aggravate.—Eds. Press.]

Sacramento Grange.

Editors Press:—A fraternal gathering of the Grangers from this district assembled at Fireman's hall, on the 29th inst., to hear addresses on State interests and for good of the Order. Bros. Cressy and Adams devoted the short time in remarks direct to the point. The balance of the time the members spoke on subjects relating to the interest of the whole. Bro. Hoyt offered the following resolutions:

Resolved, That the Grangers, of this, the Sacramento district, present at this meeting express a vote of thanks to Bros. Cressy and Adams for having promptly responded to our interest to meet and address us upon the subject of co-operation and its business relation.

At the close of the meeting all left well elated with the exercises of the day.

Such meetings cannot be held too often. Each Grange has subjects of interest for discussion, and, by mingling together, each can relate the matters of interest, and all can be benefited. They can also invite speakers on works relating to State interest.

Geo. Rich.

Sacramento, August 1st, 1876.

Music in the Grange.

From an essay on music, which was lately read before Sonora Grange, we take the following paragraph: Music will sink deeper into the soul of man than any other known agent, and when its virtues are better understood, as a healer of broken hearts, shattered intellects and depraved associations, governments and people will provide for its realization. What would a church be without its music? What would the meeting of the Grange be without its music? What would many a happy home be without its music. 'Tis the soul's harmonizer, the family elixir of love; cements affection in one heaven-bound band of eternal unity, and preserves the same from the assaults of inharmony. Music! What is it thou art not capable of performing for the elevation and happiness of man? 'Tis the soul's sunshine upon earth. The ladder by which he may climb to the higher spirit spheres. With its magic sympathy it penetrates all spheres, and unites each soul in close companionship with it's God. If angels sang the songs of heaven on a moonlight night on Bethlehem's plains eighteen hundred years ago, why should the human family of the nineteenth century be deprived of the same luxury? Laws never change only conditionally. If we could make conditions favorable, the same divine ministrations would be vouchsafed to us. But we lack of the upper sanctuary, so that the musicians from the plains of Eden are debarred the privilege of making night musical by sounds which would thrill our souls into unison with heaven's sweetest sounds. But let us descend to what we have around us, the future will yet pluck the music from spheres overhead. Let us by every means in our power cultivate this love of music, for it is heaven born, elevating and inspiring, lifts the heavy heart above the depressing cares of life, soothes the sick and banishes pain, cheers the mourner and smoothes the dark valley. Music first, music last, and in all convenient times and places we would encourage and advocate music. Our own association is helped by its music, the candidate is assured and harmonized through its influence. Its magnetic influence blends all in fraternal harmony. We are sometimes led to exclaim—under music's inspiring influence—"It is good for us to be here." Let us raise a tabernacle to its heaven-born influence.

The Warehouse at Martinez. — The Grangers' new warehouse took in the first load of grain on Wednesday, from Mr. Michael Winslow, of Alhambra valley. H. M. Hollonbeck, also of Alhambra, has the credit of delivering the second load, and W. Z. Stone, of Green valley, came on Thursday with his first delivery for storage. Others will follow this week, and the number will be greatly augmented next week. Mr. Rider has the framing of the second warehouse for the Grangers' Association well on towards completion, and will commence raising it in a few days. The building will be completed for receiving grain as soon as it will be needed.—*Gazette.*

In Memoriam.

Santa Maria Grange, No. 52, July 1st, 1876.

Whereas It having pleased the Almighty Maker of the universe to call from our midst our worthy brother, J. B. Linebaugh, who departed this life on the 19th day of June, 1876; and since he remained to the principles inculcated by the Grange true and loyal, amidst the adversities that we have encountered, and through discouraging circumstances; therefore

Resolved, That we wear the usual badge of mourning for 30 days, and that a copy hereof be sent to the Pacific Rural Press for publication, and also placed upon the minutes of this Grange.—[Committee: Joel Miller, B. T. Wiley, J. H. Harris.

Agricultural Notes.

ALAMEDA.

Potatoes.—Livermore *Enterprise*, July 29: The potato crop in the vicinity of Pleasanton will be very large this season, and the quality of the article is unsurpassed. One left here by a tenant on Mr. Rose's ranch weighed two pounds and was of a very superior quality. The fruit crop is also fine—the peaches, plums, apricots and nectarines in Mr. Carmon's orchard are very plenty and ripening fast. He has enough to supply the town.

AMADOR.

A Foothill Garden Spot.—*Ledger*, July 29: At the base of Butte mountain, about three miles from Jackson, is a property comprising 120 acres, owned by William Avala. Only 40 acres are at present brought under cultivation. These 120 acres were purchased by Mr. Avala about 11 years ago for the sum of $100. It was then virgin land. He set to work and planted a few trees, which with a little irrigating, thrived wonderfully. He gradually increased the area of cultivation, until now he possesses one of the finest gardens in the mountains, which with little trouble on his part, gives him an income of $3,000 a year. Nowhere have we seen fruit trees so heavily laden with fruit as here. Every description of fruit yields in abundance. There is not a failure in any kind. There is not a tree in the whole 40 acres of bearing age that has not produced more than an average crop. The apple and peach trees are a sight worth seeing. In some cases they have had to be propped up with a dozen supports to prevent the branches breaking under their load. Mr. Avala says, never since the garden has been in existence, have the trees yielded so well. The crop of peaches, apples, plums and pears will amount to 100 tons, all of which has been purchased by Ginocchio Brothers, of the Alden factory. The vines—of which there is a great number, including almost every variety—look remarkably healthy, and are all loaded with grapes, Last fall a number of vines of the Large and Malaga varieties were planted, and are thriving. Some of these have produced wood this season measuring nearly three inches in circumference, and many of them have one or more clusters of grapes. A couple of chestnuts were planted about eight months ago, and these have germinated, the trees being over a foot above ground. They are the only trees of the kind growing in this section of the State. There are excellent facilities for irrigating, and a small stream of water is all that is necessary to keep the trees healthy and fresh. Avala devotes the whole of his time to his garden. There are no unsightly weeds to be seen in any part of it. He understands the science of gardening, and finds that it pays him to keep it in good condition.

COLUSA.

Important Land Decision.—*Sun*, July 29: The Secretary of the Interior has made an important ruling respecting the rights of settlers within the boundaries of the Disz Grant, in this county, but patented by the government to the Central Pacific R. R. Co. Merrill, Rice, Harbison and others, two or three years ago, in the occupancy of certain quarter sections in Township 17, 3 West, that were included in the patent to the railroad company of March 5th, 1872. E. C. Hunter, Esq., who had a deed from the company for a large tract of land, including these particular quarter sections, brought ejectment suits against Merrill, Rice and the others, recovered judgment and put them all off. The parties then, under the advice of their attorney, Col. F. L. Hatch, of this place, made application to the Marysville land office to pre-empt the several quarter sections claimed by them respectively. Their applications were rejected by the Register, and they appealed to the Commissioner of the General Land Office at Washington, and from him to the Secretary of the Interior, who has finally decided that the parties are entitled to their pre-emptions. The Secretary, however, makes an exception in favor of such settlers as were, at the time of the issuance of the patent to the railroad company, in the actual possession of the land, intimating that the railroad title will will not be disturbed except for the relief of parties who were thus actually in the possession of the land when the patent to the railroad company was issued.

The Boiler Explosion.—*Independent*, July 29: The engine to Pike Gupton's mammoth separator burst its boiler on Tuesday last, instantly killing two men and seriously injuring three or four others. One of the injured men, Edward Wade by name, was brought to the county hospital on Thursday and from him we gleaned the following particulars: About four o'clock in the afternoon of Tuesday the engine stopped and the men were resting in the vicinity of the engine. A young man by the name of Waters was standing near the separator, and John Lapoe was oiling it. The engine was carrying about 120 pounds of steam with a capacity of about 140 pounds. There was no steam escaping. Wade says he was standing at the end of the boiler watching the engine, when all of a sudden the explosion came with a heavy dull sound. The next thing he remembers he jumped up and found himself frightfully scalded by the hot steam which had rushed out upon him. On looking about him he found the two men, Waters and Lapoe, had been killed, and two Chinamen seriously if not fatally injured. The engineer was considerably hurt, but was saved from being scalded to death by the cold water tank which happened to be between him and the engine. The cold water was thrown on him and prevented the hot water from scalding him. Wade says he cannot imagine what caused the boiler to burst unless it was because it had too much water in it; but we have always understood that danger was much more to be apprehended from too little water than from too much Fragments of the boiler were thrown in all directions, and these striking the men are what caused the deaths.

CONTRA COSTA.

Handsome Improvements.—*Gazette*, July 29: On his property in the San Ramon valley, about a mile south of Alamo, Mr. August Hemme, of San Francisco, is erecting a mansion of large proportions and handsome architectural design, which will make it by far the largest and most costly structure for residence purposes in the county. Mr. Hemme was one of the early San Ramon resident farmers, who sold the property on which he is now building, and removed to San Francisco some 12 or 14 years ago. Having greatly prospered in a financial way, within the past few years, Mr. Hemme has purchased the place he formerly owned, together with several hundred acres of adjacent San Ramon land, and we are glad to have our former neighbor back, with his means and disposition of making handsome improvements in that fine district of the county.

Hay, Wheat and Barn Burned.—On Sunday afternoon last, about two o'clock, a fire broke out at the bay stack of Mr. Julius Zable, on the Tassajara road, about seven miles from Danville, and burned about 100 tons of hay, the barn, together with sets of harness and farming implements, and a stack of headed wheat, estimated to contain 500 or 600 sacks. The smoke column signal called together the men from all the country around and by great exertions the fire was confined to the field where it originated or its vicinity, and suppressed without its getting out to sweep the country, as there was great probability it would. No cause can be surmised for the fire other than matches, dropped about the stack and ignited by the sun. The damage is estimated at $1,500 or thereabouts, a small portion of which is covered with insurance.

Grain Coming In.—*Ledger*, July 29: Farmers have been reluctant to dispose of their wheat at the unreasonably low prices offered, and, consequently, until the present week only a few small lots have come in. During the past few days, however, immense quantities have been landed on the wharves. The price is still at a low figure, $1.40 being the highest yet paid for the best quality of wheat.

Point of Timber.—The threshers have done their work, but the wheat remains in the field awaiting a better market. The crop altogether is an excellent one, though far short of what it promised three months ago. The largest average yield in this neighborhood is on the ranch of S. Page, who gets 20 sacks to the acre.

EL DORADO.

Robbing Bees.—*Republican*, July 27: A certain judge whose name is Irwin, residing on the south bank of Hangtown creek, has a few hives of bees, who, not partaking of their owner's sense of justice, but believing in the law that makes might right, made a raid across the creek to the ranch of Murgotten, who also has a few hives of bees. The judge's bees made a vigorous attack upon Morgetten's bees, completely vanquishing them, and following out the Democratic doctrine that "to the victors belong the spoils," compelled the vanquished to convey the honey they had stored away, over to the judge's hives. It is not related whether the judge revels in stolen sweets, or ordered a return of the contraband goods.

FRESNO.

Immigrants.—*Expositor*, July 26: We are reliably informed that a large number of immigrants will arrive in Fresno this fall. A great number of them have secured tracts in the Central California colony, while others will locate on adjacent lands. It is quite evident that all the tracts embraced within the present colony limits will be disposed of before the close of the present year.

Canal.—The extension to the Fresno canal and irrigating company's aqueduct, extending westerly from the Central California colony, has been completed for a distance of about 12 miles, at which point the work will be suspended for the season. The ditch opens up to irrigation and cultivation a large and excellent body of land.

KERN.

When to Cut and Plant Live Posts.—*Courier*, July 27: An examination of the fences made this year shows a good deal of ignorance or carelessness in the management. On nearly all the farms where live posts have been put out, the majority have died or show signs of decay. A great deal of the work will have to be done over again. It will be found that most of them have been cut late in winter or in the spring. With abundant water they flourish for a while, and perhaps up to the month of July show signs of life; but they almost invariably die sooner or later. The posts should be cut in the fall. When cut at that time they may lay on the ground all winter, until even hot weather, but if planted then they will grow, with indifferent attention. It is better to cut them in November with the leaves still green than to wait till even February. Often in that mild month the sap will begin to flow, and if cut afterwards there is little chance of saving them. The value of them as shade for stock and as ornament to the highways should induce their general use. They make picturesque divisions of the farm and promote the health and value of the country, besides making the cheapest of enclosures. It is not unlikely there may be many forest trees which can take the place of the willow and cottonwood now so common, but so long as dependence is placed upon the trees which may be cut for posts, care should be taken in cutting them.

Second Crop of Corn.—Farmers are still planting corn for the second crop. The early corn is in excellent condition and promises a large yield. But for the scarcity of labor a much larger area of new ground would have been planted. Water is abundant and cheap. The need of the country to hasten its development is more capital and more labor.

LAKE.

The Harvest.—*Bee*, July 27: The season of harvest in this county has been unusually late this year, but we learn that it is now pretty well advanced. The heading is nearly completed and the threshers are at work. The yield of barley and oats is large, but the wheat crop is light.

MERCED

Grain Shipments.—*Valley Argus*, July 29: C. H. Huffman shipped 17 car-loads of wheat on Tuesday. The Grange warehouse company have also been shipping a few car-loads every day since Wednesday. Farmers seem to be holding their grain back, very few having yet commenced to haul to the warehouses. Of late there have been very few transactions in wheat, the price being too low to induce persons who are not forced to sell to obtain ready money, to part with their crops.

NAPA.

Grapes and Wine.—*Register*, July 29: There will undoubtedly be the largest crop of grapes harvested this season that has ever been gathered in California. The vineyard men in this section report that their vines are heavily loaded, and from all the grape growing regions of the State come substantially the same report. Good authority estimates that the Grape crop this year will exceed last year's yield by 20 per cent. The grape crop last year was reckoned at 8,000,000 gallons; while this year it will be equal to 10,000,000 gallons. But owing to the cellars of the wine makers being nearly full and the wine market dull, it is quite likely that less wine will be manufactured than last year. The grape growers do not feel very jubilant over the prospects for a big crop, fearing that the prices will be unprofitably small; but they may be agreeably disappointed this year, as in past seasons.

Grapes for Hogs.—Petalums *Argus*, July 28: On Mr. Sackett's place, near Calistogs, is a vineyard of about 40 acres, in which is almost every variety of grapes that have been introduced into California. The crop will be extraordinarily large, but it is probable that the prices will be so low as to render it unprofitable to gather more than a small portion of them. The grape crop is very large in all parts of Napa valley, and it is likely that many hogs will be fattened upon grapes in the valley this season. This seems a poor use to put this luscious fruit to, but it, now appears to be the most profitable purpose to which it can be given. Grain and fruit crops of all kinds are very large throughout Napa county this year.

SACRAMENTO.

Potato Bugs.—*Record-Union*, July 27: Residents of the southeastern portion of the city have been greatly annoyed for some time by the presence of potato bugs or beetles about their premises. The beetles are of a yellowish gray color, black stripes running across the back, heads somewhat resembling those of grasshoppers, and the length of the insects when full grown being two or three inches. Their legs are long and strong, and furnish a lively rate of speed. In the gardens of the residences in that section of the city they are very frequent, living in holes in the ground resembling those made by tarantulas. Evidently they are very timid, as, on observing the approach of any person or animal they endeavor to hide, but like the ostrich, seem to feel secure if they can succeed in covering their heads. Chickens and turkeys delight in capturing them, and by means of the fowls they have been prevented from overrunning the premises upon which they have appeared.

SAN JOAQUIN.

Grain Stack Burned.—Stockton *Independent*, July 31; The heavy smoke which occasioned an alarm of fire Friday afternoon last, proves to have been the burning of a stack of grain belonging to D. D. Swain, living five miles northeast of this city. The grain was being threshed and the fire caught from a spark cast out of the engine. It spread so rapidly that it was quite impossible to save the stack, there being about 200 sacks of grain, together with derrick forks, header wagon and other implements, destroyed. It seems that there were buckets filled with water provided at hand, but through the excitement of the moment the water was cast about rather wildly, doing no good.

SAN LUIS OBISPO.

Good Yield.—Thomas Barrett, who owns a farm in the valley, south of town, harvested, of a beautiful quality of wheat, 31¼ bushels to the acre. This is in a section where some people have doubted the ability to raise good wheat, owing to fog and winds during the ripening season. We understand that the crops in the Santa Maria valley and the Ojo Flaco are turning out excellently well. But few people have finished their summer's labors so as to be able to give full returns yet.

SANTA BARBARA.

Lompoc Points.—*Record*, July 22: Some weeks ago, Mr. Hammer brought to our office a French breakfast raddish weighing three and a half pounds. Dr. Childs subsequently left four silver skinned onions, weighing a pound and a quarter each. Messrs. McNeally and Henning have since left a beet 38 inches long, and a cucumber three feet in length. Last year Mr. Mulinary produced common beets in about 20 weeks, weighing 75 pounds each; Mr. Barker carrots weighing 11 pounds each. Thus the list runs through—no end to the size and quality of our vegetables.

SONOMA.

The Russian River Crops.—*Flag*, July 29: Reports from all sections around this city show that not more than a two-thirds crop of wheat has been grown this year, owing to the prevalence of severe north winds in the spring. This is particularly hard on farmers, as there have been such immense crops elsewhere in the State, our short crop will probably be accompanied by low prices. However, the year's returns to the farmers will be brought nearly to the average by the abundance of hay, which has been secured, and the large yield of fruit and corn which will be harvested this fall.

Hay.—Petaluma *Argus*, July 28: Hay is arriving in town in large quantities daily, and the amount at present stored in this city is nearly 3,000 tons. Prices range very low, first-class baled hay bringing only $9.50 per ton, and inferior qualities $7 to $9. The quantity produced in this county this year is immense, and there is not near enough storage room for all of it. The quality this year is generally better than last. Wheat hay, which is better than any other kind, is the quality generally produced hereabouts. During the past two weeks large shipments have been made to San Francisco.

Almonds.—*Democrat*, July 27: We learn from one of our citizens who has been raising almonds in the valley near Santa Rosa, for the past 15 years, that the crop here this year is a very fair one. He informs us that his trees have failed but once in 15 years; that was last season, when an unusually late and heavy frost visited most portions of this coast.

SUTTER.

Broom Corn.—*Banner*, July 27: We found that W. P. Hanson and others who were flooded out last winter are now busy planting broom corn and potatoes. Broom corn sown earlier on this land appears to have failed, owing probably to the wet and cold condition of the ground after being submerged.

Planting Potatoes.—Henry Pinney is busy preparing the ground and planting potatoes on his farm, about two miles above town. The unusual high water in the Feather river this summer overflowed the bottom lands, which prevented their being cultivated in proper season. Although the season is far advanced, Pinney expects to have a good crop of potatoes, for under the influence of the warm weather they will mature rapidly.

TULARE.

Fall Clip.—*Delta*, July 27: Several of our sheepmen have already commenced shearing the fall clip. The spring feed having been abundant the sheep are extraordinarily fat and their fleeces heavy, especially on the earlier lambs, and the hot weather has necessitated this early clipping.

Oregon.

Hops.—*Pacific Tribune*: From an interview with Donald Macleay, of Portland, who was down in the Puyallup valley last week, contracting with the growers for their this year's crop of hops, the editor of the *Olympian* gets some facts of much interest, concerning the extent of the production in that valley. The acreage under cultivation amounts to about 400 of vines two years old or more, and the expected crop from them is placed by Mr. Macleay at 800,000 pounds. The growers are Messrs. E. Meeker, 50 acres; Thompson & Meade, 40 acres; Ryan & Avery, 33 acres; Fred. Clark, 16 acres; Kincaid Brothers, 14 acres; James W. Law, 10 acres; Jos. R. Dickenson, 12 acres; Isaac Lemon, 25 acres; J. P. Stewart, 8 acres; A. W. Woolery, 11 acres; and about 150 acres owned and controlled by other parties. To pick the hops of the Puyallup valley this season not less than 1,000 hands will be required, and that is the great difficulty to be experienced in the production. Picking begins about the middle of September, lasts two weeks, and can not be postponed any more than can the cutting of hay or grain when ripe. For the last year, the price received for hops has been very low, and their cultivation was attended with no profit. With a fair market price this year, the farmers there will be in comfortable circumstances, at least.

Washington Territory.

Pork Packing.—Walla Walla *Union*, July 22: Mr. H. P. Isaacs is perfecting arrangements to establish on his place a steam pork packing establishment. He proposes to procure a steam boiler and all the requisite machinery, and have constructed the necessary buildings for engaging in this enterprise on an extensive scale. Men who are well acquainted with all the details of killing, dressing and curing "hog meat," will be employed in the various departments. The business will be carried on after the manner of similar establishments in Cincinnati and Chicago. Besides the large number of hogs raised on his place, Mr. Isaacs will prepare to buy largely. Such an undertaking, properly conducted, will no doubt prove remunerative to the proprietor, and beneficial to the country.



A New Poem by Bryant.

[We give below the concluding lines of Wm. Cullen Bryant's new poem, "The Flood of Years," the whole of which will be found in Scribner's "Midsummer Holiday Number." This poem will have for many an interest akin to that of Mr. Longfellow's "Morituri Salutamus:"]

Sadly I turn, and look before, where yet
The Flood must pass, and I behold a mist
Where swarm dissolving forms, the brood of Hope
Divinely fair, that rest on banks of flowers
Or wander among rainbows, fading soon
And re-appearing, haply giving place
To shapes of grisly aspect, such as Fear
Molds from the idle air; where serpents lift
The head to strike, and skeletons stretch forth
The bony arm in menace. Further on
A belt of darkness seems to bar the way,
Long, low and distant, where the Life that Is
Touches the Life to Come. The Flood of Years
Rolls toward it, near and nearer. It must pass
That dismal barrier. What is there beyond?
Hear what the wise and good have said. Beyond
That belt of darkness still the years roll on
More gently, but with not less mighty sweep.
They gather up again and softly bear
All the sweet lines that late were overwhelmed
And lost to sight—all that in them was good.
Noble, and truly great and worthy of love—
The lives of infants and ingenuous youths,
Sages and saintly women who have made
Their households happy—all are raised and borne
By that great current in its onward sweep,
Wandering and rippling with caressing waves
Around green islands, fragrant with the breath
Of flowers that never wither. So they pass,
From stage to stage, along the shining course
Of that fair river broadening like a sea,
As its smooth eddies curl along their way,
They bring old friends together; hands are clasped
In joy unspeakable; the mother's arms
Again are folded round the child she loved
And lost. Old sorrows are forgotten now,
Or but remembered to make sweet the hour
That overpays them; wounded hearts that bled
Or broke are healed forever. In the room
Of this grief-shadowed Present there shall be
A Present in whose reign no grief shall gnaw
The heart, and never shall a tender tie
Be broken—in whose reign the eternal Change
That waits on growth and action shall proceed
With everlasting Concord hand in hand.

Centennial Chat.

[Written for the PRESS by MARY MOUNTAIN.]

Ever since I was old enough to understand the word "mummy," I have wished to see the real thing, and whoever enters the main building at the upper end (nearest the gates of main entrance), and goes along the end corridor, will come directly upon the Peruvian department and a large assortment of

Genuine Peruvian Mummies,

Sitting upright in their glass cases. To us Americans they ought to be as interesting as the Egyptian article; and judging from the crowds that always surround them, we must conclude that all such preserved samples of humanity have a queer sort of fascination for us, mixed up with a feeling of repulsion.

If the pre-historic Peruvians were liable to gray hairs, these dried ones had not lived long enough; for their matted locks are all of a dull black and give a more ghastly look to the shrunken faces. All the bodies are pitifully small, and confirm one's notion of a race of pigmies; but here are spread out also the works of their hands; quaint old pottery, fabrics and weapons of war, all indicating a race of average strength and brain power.

Some of the heads are well developed and must have carried a fair sized brain, and in the withered hand of one woman a distaff is held, all ready to start another yarn in case that doctrine ever comes true about the resurrection and quickening into life of the same old bodies. I have heard it said that those races who took so much pains to preserve their bodies were

Earnest Believers in Resurrection;

But if they could see themselves now so wretchedly stiff and withered, very likely they would be glad to drop the old creed along with the cast-off bodies and take a fresh start.

From Peru we step over to our near neighbor,

The Sandwich Islands,

And find a pleasant welcome among the beautiful things arranged for our reception.

A lovely, framed wreath of shells and mosses surround the motto "Aloha America," meaning "Hallo," "Hurra," or any genial sentiment you like best. The Hawaiian Superintendent of Public Instruction is present to interpret mottoes or explain for visitors any other interesting puzzle. The tasteful arrangement of ferns, mosses, grasses and delicate spatter work gives a cheerful, homey-look to this department; or is it the leather, looking so much like the product of our Santa Cruz tanneries, that made this scene to me such a familiar nook? Surely the leather looks no better than our own home made, but it has had the enterprise to come over to the great world's fair and so become "distinguished from the common hide." Here are well made saddles for the islands and native boats for the ocean wave; and from the crater of Kilauea a collection of curious lava formations most wonderful in variety of color and shape.

Beside the sugar cane, 15 feet long, we find the samples of sugar from crude to double refined, and a large glass case is filled with hats, mats, fans, flowers and delicate vases, made from arrowroot plant. All these articles are so odd and beautiful that they attract much attention, as do also the ancient idols and war clubs, the exquisite corals and tropical stuffed birds in a mossy recess, each bird looking alive on its own branch.

The botanist of our party lingers wistfully over the queer silver-sword plant that grows 12,000 feet above sea level, and, if I understand rightly, it is found nowhere else.

The ancient poi calabash, the venerable, painted water gourds, and similar native relics, offer quaint contrast to the handsome cabinet work now turned out by the islanders The samples of native fabrics are very interesting, especially the Tahitian cloak, made from bark of the bread-fruit tree, and trimmed with shells; also the grass petticoat fringed in different colors of tree bark.

Queen Emma

Makes her special exhibit of right royal feathers, polished ware, bark cloth and various articles of historic value to the nation or the royal family.

Then the coils of native rope, the jars of clear oil from castor bean and candle nut tree, the pictures of wonderful scenery—"The information furnished to all who wish to acquaint themselves with the manners, customs, resources, government and civilization of the

Hawaiian Nation,"

All these things I mention merely to give a hint of the articles our Pacific neighbor has brought to spread before the world, and to quicken the interest of those who care for her welfare. No words can give a true idea of this bright and beautiful island nook where visiting faces all beam with that delight which comes from a "good surprise;" and as changing thousands still go trooping through, peering this way and that, amused, instructed and stimulated, there will be no need at the end of six months to ask the timid question,

"Will it Pay?"

Now, where shall we go when we leave the Sandwich islands? Tending westward we naturally bring up at China and Japan, and that is just what happened here in the main building as we go on and find ourselves in the midst of shining tea trays and cabinets, large vases covered with impossible dragons, and all the fans, fabrics and fine needlework that have so long been familiar in San Francisco.

I asked some visitors what they considered most interesting of all they had found, and they said: "O, we have found nothing else so wonderful as the departments of China and Japan. Did you see the lovely, oriental ware, and the silk goods and that cunning Chinaman all dressed in his own clothes?"

"Yes, I passed through and saw the ladies, whole crowds of admiring ladies, sweetly smiling on that big, fat Chinamen; and I just wished California had sent along a few thousand of those 'cunning Chinamen all dressed in their own clothes' so that this Centennial celestial need not be spoiled by too much admiration." (Perhaps we Californians are a trifle bitter on this subject. Eastern people seem to think we are.)

We had expected to find natives from everywhere "dressed in their own clothes," but with the exception of a few Turks and Japanese in their bazaar buildings, and the fat Chinaman in the main building, the great crowds day after day are "cut and trimmed" after pretty nearly the same pattern. They tell us it was not so at first, but that foreigners who began to go about in odd-looking rig were so annoyed by

Rude Boys and Respectful Reporters,

They finally laid aside their peculiar costume and disguised themselves in the ready-made clothing of Market street.

And now as we go on, a queer old rhyme keeps spinning through my brain—

"Dr. Foster's a very good man—
Whips his daughters now and then.
When he whips them, makes them dance.
Out of Scotland into France.
Out of France and into Spain,
Dr. Foster whips again."

When these lines were written they had reference to some deep political plot and to some great "power of the period" that held the reins and made persons and events dance to please him. But many an old verse has been mistaken for prophecy and what could come truer than the free-and-easy dancing "Out of Scotland into France, and out France into Spain?" That is just what we are doing here in a daze of almost speechless admiration and urged onward by the whip or spur of an eager curiosity.

When tired almost to death we still go a little further—"Out of Scotland into France"—and when the glory and glitter of Paris, the gilt-edged profusion of everything elegant and costly wearies the eye and brain beyond endurance, we still whip on and step through the grand Spanish archway that leads to a display, magnificent and even "gorgeous," perhaps, but not so large and dazzling as that of France.

Spain has also a separate building, large and well filled with treasures of art and science; precious old keepsakes left over from the age of immortal Don Quixote; fine collections of photographs of Spanish beauties, and of the royal family, who are not beauties; samples of some very big mahogany trees to show us how that lumber looks in the rough; and pictures old and new to show us the look of ancient and modern Spain and her most famous Spaniards. If you should go into this Spanish house tomorrow you might not even notice these things I have spoken of, because there are so many others equally attractive. Now that I come to think of it, the whole center of the building is filled with tables covered with maps, showing mountain elevations, water courses and all the minute geography of the country, and other tables hold models of forts and bristling armaments, well guarded by fierce soldier-statues armed from head to foot. Many of the old treasures would have been more interesting if the descriptions had been written out in English.

But I have been most astonished at the exhibits made from

Far Away Corners of the Earth,

That have never yet made much claim upon the world's admiration.

My California conceit suffered over and over again a total collapse, as I found provinces of Australia, and almost unknown countries of Africa, and far away forgotten islands represented here by well filled departments; and not only well filled, but fairly brimming with beauty and interest. From almost countless objects demanding attention and giving the delight that always comes from a novelty that is agreeable, we look upward to read on silken banners the names of departments: "Tasmania," "Trinidad," "Gold Coast and Orange Tree State," "South Africa," "Queensland," "Mauritius," "Mozambique," etc. I was so delighted with the productions, pictures and politeness I found in Tasmania, that I shall begin my next letter right there.

Grandma's Love Story.

A True Story.

Written for the RURAL PRESS by LORAINE.

A few evenings ago we were sitting around the fire, grandmother, Dora's grandmother. Dora, Emma and I. It was dark and chilly outside, which made the firelight seem brighter and pleasanter to us. Grandmother sat in her big chair, which she filled very well, for she is a large comfortable looking grandma.

"It always makes me think of old times," said she, "to sit and look into a fire like that. People lived so differently 50 or 60 years ago. Stoves had not been heard of, and there were fire places in every house. People worked some then. We had to be up by five in the morning the year round, there was so much to be done. We spun and made all our own linen and woolen cloth. Calico was high, it cost a dollar a yard."

"And now you can buy any quantity of it for five cents a yard," said Emma.

"Yes, but calico was much better then, it was a yard wide, nice and strong and heavy. A dollar was worth a good deal more than it is now, and a calico dress was considered a pretty good dress. In the winter we wore woolen dresses. Our nice ones were made of fine, soft wool. I wonder what girls would think now-a-days if they had to spin the wool to make their own dresses of, and knit all their own stockings. We had to keep pretty busy, I can tell you; knitting was for odd times and evenings, and at nine o'clock we all went to bed. There was no sitting up till after midnight reading novels and coming down to breakfast at nine in the morning."

"But, grandmother, didn't you ever have any parties, or any fun at all?" said Dora.

"Fun! yes, lots of it. We enjoyed ourselves a great deal better in those days than people do now, I believe. We were strong and healthy, for we had plenty of exercise and lived on plain food, and were able to enjoy our fun more than the sickly young people of the present day do theirs. We had parties as often as we wanted to go to them, quilting bees, and husking bees, and in the winter sleighing parties. A big sleigh-load of young people would start out on a bright moonlight night, bells jingling and everything as merry as possible. Perhaps we would have to go eight or ten miles to get to the party. Then we had nice respectable dances, cotillions and contra dances. We had never heard of waltzes or any of those whirl-around-jigs that seem to delight young people now. We wouldn't have thought they were modest, and we didn't dance all night either; we went home time enough to get some sleep before daylight.

"Grandma, tell about that trick you tried once that came true?"

"O, that was nothing," said the old lady, getting up to put another madrone stick on the fire. "There, that piece of hard wood will last till bed time."

"But it came true anyhow," persisted Dora.

"Yes," said grandmother, settling herself again in her chair. "It just happened so, and it was kind of curious too. But it was nothing but some nonsense—not worth telling of."

"O, yes," pleaded Emma, "do tell it, we all want to hear it."

"Well," said the old lady, rather reluctantly, "it was when I was a girl. I was 18, and one of the neighbor women put it into my head to try this trick; she said it would certainly come true. The next morning after we had been talking about it, I happened to be alone in the house. Dorcas and Uncle Willis had gone to town. The children were off to school, and mother had just stepped down into the orchard. I thought it would be a good chance to try. So I took a chair and turned it up-side down against the wall. Then I put some water and a cloth in the dish-pan and set it carefully in this chair. Then I washed the back of the chair with the cloth; put the pan away and set the chair up behind the front door, and went up stairs to change my dress. I had hardly got my old dress off and the other one on when there came a loud knock at the door.

"How that knock started me! My heart thumped so I could fairly hear it, and I was frightened half out of my wits. I knew I had to go to the door, because there was no one else in the house, so I hurried down as fast as I could, but the knocking was repeated once or twice before I got there. When I got the door open, there stood a young man I had never seen before.

"He took off his hat respectfully and said he had been sent by the government to warn the people that the Indians were coming—to be prepared for them. Then he sprung upon his horse and rode on to the next neighbors.

"We lived in Michigan then. The country was new, and there was some trouble with the Indians."

"Did the Indians come?"

"Yes, but as it turned out, there was no harm done. The people got togther and made a settlement with them—bought their claims, and they went away and made us no trouble."

"Tell the rest about the young man, Grandma."

"Well, about a year after that I saw him again at a party, and got acquainted with him. I saw him a good many times, and we were married. He was your grandfather."

"Did he know about your trying that trick, Grandma?"

"No, I never told him about it; I was ashamed to. Well, the fire is getting down, and it is bedtime—after nine o'clock."

Grandma raked the embers together and we took our lights and said 'Good night."

Mother.

It is the cry of the infant, just from the cradle; it is the only balm that will heal the wounded heart in youthful days. "Mother, I'm hurt," "mother, I'm tired," "mother, sing to me, rock me, tell stories." It is always "mother" with the child and the lad. No one like mother. No hand that falls on the fevered brow as softly as hers; no words so sympathetic as those that pass her lips. The house would be a grave without her. Life would be a dreary, thorny road without her warning voice and guiding hand. A father may be kind, may love not less, but the wearied child wants the mother's arms, her soft lullaby songs; the caresses of her gentle hand. All childhood is a mixture of tears and joys. A kind word brings a smile, a harsh word a sigh, a fall is pain, a toss a joy. The first footsteps weak and trembling, grow stronger by the guidance of a mother's love.

The little wounds, the torn clothes, the headaches, heartaches, the trials, all vanish at the words of a mother, and there is built up in the heart of every man an edifice of love and respect that no crime of his can topple down—no dungeon cell effect.

And a lad grows to be a man only to find that "mother" is the same. If he errs, she weeps; if he is good and manly, she rejoices. Her's is the only love that lasts—endures forever.

The wolf of starvation may enter the door, but her love is only tried to shine the brighter. All the world may call her son a criminal, but the mother only believes it not. Trials may beset you, storms gather over you, vexations come, ruin drag you down, but there is one who ever stands firm in your cause, who will never leave you. The criminal on the scaffold has suffered in feeling because his bad deeds would cause a pang in mother's heart. The low and wretched, dying in some dark abode of sin, have died with that name on their lips. There is no praise like her praise, there are no sad tears that pain us so much as hers.—*Detroit Free Press.*

BATH OF AN ICEBERG.—Let us see if I can tell it to you as vividly as the fish hawk seemed to tell it to me: Imagine a great sea with waters black from the intense cold, but flecked all over with snow-white wave crests. There is land in sight, but not a tree, not a green field, only cold land, dazzling and glittering with glaciers and snow peaks. On the waters are floating, swiftly and silently, great icebergs that look like gleaming marble palaces which some unseen spirit has set in motion. All at once one great berg, the largest and most beautiful of all, begins to move uneasily,—to waver as if looking about to see if is observed. Then suddenly, with swift and graceful majesty, it plunges its high crowned head beneath the waves. There is a moment's struggle, the sea swells and tosses; then out of its bath, presenting a new and even more beautiful front than before, comes the glittering berg, calm and mighty still, to float on its southern way. —*St. Nicholas.*

Is There a National Flower?

This morning as a party of Americans were gathered around our breakfast table, the question was asked by one of them, "Have we an emblematic flower?" None could be remembered, so I now repeat the question. If we have none, would not this our Centennial year be an appropriate one in which to plant our flower? And what shall it be? It should be one which, at the mention of our name, would bloom as quickly in thought as does the lily at the mention of France, or the rose when old England is spoken of. In our broad land, with its many climates, we cannot have a flower common to all parts. But there is one fair blossom twined in the affections of almost every American, and its fragrance, so delicately subtile, comes with the memory of it. It was the first gentle welcome the Pilgrims received from an unknown climate, and—

"God be praised!" the Pilgrims said,
Who saw the blossoms peer
Above the brown leaves, dry and dead,
"Behold our *Mayflower* here!"

Then, if we have no national flower, why cannot we all unite in so christening our loved Mayflower, or trailing arbutus? Whittier exalts it to that honor when he writes:

"Oh! sacred flower of faith and hope
As sweetly now and then
To bloom on many a birchen slope,
In many a pine dark glen."

The Pilgrims came and blessed the granite shores of New England with their faith. They crossed that threshold to "Our Country," and over stony paths and bloody battle fields unfurled the flag which in its purity and beauty has waved for 100 years. Now, in our days of ease, prosperity, and happiness,

"Bs ours the love that overruns
Its rocky strength with flowers,"

And let us plant in the shadow of every "Star Spangled Banner" the emblematic blossom, with its pale tints and lingering sweetness, and know it by its homely name, the Mayflower. —*Annie T. Howells.*

THE BUNYAN GATES.—On Wednesday afternoon there was a large assemblage of inhabitants of the town of Bedford and its vicinity to witness the unveiling of the bronze doors, illustrative of the "Pilgrim's Progress," presented to the chapel, which still bears the name of "Bunyan meeting," by the Duke of Bedford. Last year his Grace had his attention directed to a series of bronze panels which had been lying for some time in the studio of Mr. Thrupp, and having been much struck with the beauty both of the design and of the execution, it occurred to him that the fitting place for what are, in fact, pictorial renderings of some of the chief conceptions in the immortal allegory of Bunyan, was the town with which his name is, and always must be, inseparably associated. With this feeling the Duke offered them to the minister and congregation of the Bunyan meeting, and the response was, of course, glad and grateful acceptance. The Duke then commissioned Mr. Thrupp to provide a suitable frame for the panels, and the result is extremely satisfactory, the frame and all its surroundings being in bronze, like the pictures, and entirely harmonizing with them. A handsome covered stone portico, having two pillars, has also been erected to improve the approach to the gates—which form the principal entrance—and at the same time preserve the memorial; and the vestibule has, for similar reasons been altered and restored, the latter now including a brass tablet recording the fact that the gates were presented by his Grace, Francis Charles Hastings Russell, ninth Duke of Bedford, on the 5th of July, 1876. The size of the doors unveiled on Wednesday is about nine feet by five feet. The ten panel pictures are in pairs, and beginning at the bottom run upwards in order, commencing with "Christian reproached by his wife and neighbor," and ending with "Christian crossing the flood, supported by Hopeful."—*English Paper.*

DOM PEDRO'S POEM.—Following is the translation of a poem which Dom Pedro contributed to Godey's *Lady's Book* while in this country:

If I were clement, just or pious, I should do what I ought. The scepter's weight is very great, and he who holds it has not the sacred laws at his discretion—as a faithful ruler, he must execute, but cannot alter them.

The throne is the seat of justice, and he who sits in so high a place becomes subject to the most severe law. He loses his will. Any neglect on his part becomes an enormous, detestable, sacrilegious crime.

When in the horizon the sun sheds the light of day over the face of the earth, no one wonders, for all are used to it.

But if eclipsed, perchance he is disturbed. In that unhappy moment all are alarmed; all remark it, and are frightened.

In like manner, if I always rewarded virtue and punished vices, I should deserve no credit.

HOW TO GET COOL.—When the thermometer stands 90 deg., warm young friends, don't fume, nor fuss, nor fan yourselves into a blaze. No. Sit down in some quiet place and think *only of cool things.* Think of snow; think of ice; think of cool water trickling down your back. Think of holding a liveeel in each hand. Imagine yourself under an icy shower bath, or sitting at night-fall on top of an iceberg; then try to shiver. Do all this without once stirring from your position and you'll get cool, or my name's not Jack.—*St. Nicholas.*

YOUNG FOLKS' COLUMN.

Charade.

A correspondent calling himself "one of the young folks" asks us to publish and solicit solutions to the following original charade by "Zeke Cornstalk."

My first is an abbreviation,
That in this State is often seen;
Its first and last have the relation
Of thirty-two and of sixteen.

My second has the same pronunciation,
As a letter found before P,
That is not in any nation,
And is as crooked as can be.

My third is a prefix often used
Before verbs, other verbs to make;
The meaning from it to be deduced
Is to repeat or to retake.

A personal pronoun is my fourth,
Though one letter does encumber;
You can take my word for what 'tis worth—
You'll find it of plural number.

A word of ten letter is my whole,
Half vowels and half consonants;
Its substantive is not wood or coal,
But contains lime in abundance.

The Young People.

Their Remarks, Questions and Replies.

[Written for the "Young Folks' Column" by COMUS CANOPUS.]

Of all the oddities of our juveniles, their remarks, ideas, questions and replies are certainly the queerest, and frequently, the most amusing. Few parents cannot recollect some little incident, some queer remark or some strange query of their children when they were "wee bit of things." Few forget a harmless, witty remark made by their offspring, or fail to repeat it with as much merriment as it caused them at the time of its utterance.

Thus it is related by a lady of her daughter Mary, four years of age, that, one day, passing a house in which lived two little girl friends of her's, on seeing some crape hung on the door-knob, Mary remarked that she thought that "one of dose little dirls in there must have died-ed, 'cause I see her clothes hangin' on the door-knob!" Some time after the same little girl, on hearing her mother say to her, "Mary, if I was a little girl I would pick up those chips," replied quickly, "Well, mamma, aint you glad you aint a little dirl?" The remark was so innocently witty that she was excused from picking up the chips. Another little girl, whose father observed her dipping her doll's dress into a glass of brandy, on questioning her as to the reason why she did it, said that she desired to make her doll's dress red. "Why, my child," observed her father, interestedly, "you cannot color red with brandy." "Yes, I can, papa, because mamma said that it was brandy that made your nose so red." That father was at once cured of any further desire for knowledge in that direction. It is strange how frequently children become sick when told to do some little errand or help about the house, or just at school time. They have at such times toothache, headache and many other unfelt aches. Thus, relates the London *Fun*, a little fellow who had remained from school on pretext of a "something in my eye," soon after school had taken up, on being called by one of his playmates on the streets, with whom he was prevented from going by his sister, who said, "Well, you know, Bobby, you're eye is very inflamed; yon can't go with Tommy till that speck of dust is out of it," replied in a voice which betrayed his anxiousness to get off, "Oh, I'm all right. I know it is out now," (then earnestly) "I think I heard it fall!"

The schools, both Sunday and week day, furnish innumerable anecdotes of the small children attending them. A plodding little fellow was once asked whom Adam married. After meditating deeply, rolling his eyes in a manner expressive of intense agony, he simpered out that he did'nt understand what it meant. The good teacher tried to explain Eve was Adam's wife. "Now, don't you see, my lad," he began, "your father is Mr. Brown and your mother is Mrs. Brown. So, then, your father married Mrs. Brown, didn't he?" "Yes, sir," faltered the candidate for instruction. "Well, then," continued the teacher, "who did Adam marry?" "Mrs. Brown!" shouted the little fellow. Again, at a school, a teacher asked a newly admitted scholar, "Who made the glorious universe?" "I don't know, sir." Reaching for the rawhide, he asked again, more sternly, "*Who made the glorious universe?*" Almost crying, and looking first at the rawhide then at the teacher, he answered, "Please, sir, I did it, but I won't do it again!" The teacher is said to have fainted. At a Sunday school, not long ago, a teacher asked a pupil, whom he had been giving a lecture on conscience, "What makes you feel uncomfortable after you have done something wrong?" "My father's long leather strap, sir." This boy, it seems, prided himself on his witty replies. Not long after, in answer to a query by the same teacher, who asked, "Now, boys, if I had a pie, and gave you three-fourths and kept one-fourth myself, what would be left?" he said quickly, "The plate, sir!" Leaving the school-room with the austere old teacher, and following him across the field toward his home, we overhear this dialogue: Teacher to boy at work in field—"My little man, can you tell me what time it is?" Boy—"Yes, sir, it is 12 o'clock." Teacher—"I thought it had been more." Boy—"It's never any more here, it just begins at one again."

Speaking of time reminds us of a little girl, who once asked a grocer what time it was. "Twenty minutes to three." In about a minute the girl returned, saying: "Mister, will you please tell me what time it is?" "Why," he replied, "I told you just now!" "Yes, sir, I know, but its another woman that told me to ask this time."

GOOD HEALTH.

Poultices and How to Make Them.

A poultice usually is only a desirable vehicle for imparting heat and moisture. By softening the tissues, poultices facilitate the passage of inflammatory products outward. The heat and moisture relax the tissues, and to that degree relieve the tension due to the inflammation, and to that extent relieve pain. The pain can further be eased by adding laudanum and such substances to the surface of contact of the poultice.

The materials best calculated to take up and give out the heat and moisture spoken of, are in common use. There must be enough of the mass to secure and retain enough heat to be of use, and therefore a poultice should be at least an inch thick. To prevent cooling in spreading, the cloth upon which the mass is to be spread should be laid out on a heated plate or dish, and the poultice, with not enough free liquid in it to "drip," rapidly and evenly spread over the muslin. A thin piece of quite old muslin should then be spread over the surface of the poultice, so the mass will not come into immediate contact with the skin. The spread area of the poultice should be just the size required; and the fabric upon which it is spread should extend beyond the edges of the poultice material, so the unspread selvage can be turned over the edges of the mass. This will keep the poultice from leaking away.

After having been applied as warm as can be borne, a piece of oiled silk—or even oiled paper might answer—should be spread outside to retain the moisture, and something outside of that again to keep in the other useful feature of the poultice—the heat.

Such applications must necessarily be removed and renewed every little while. If poulticing is to be done at all, it must be done well, and that is, properly. A few hours of poulticing applied every half hour, will do more good than many hours of poulticing done in the usual way.

BREAD-AND MILK POULTICE.—Remove the crust from the part of a stale bread, and crumble the bread into a bowl. Pour on this enough sweet milk to cover it, and simmer over a fire, stirring it all the while until the bread becomes completely broken up. The poultice is now to be applied to the patient as warm as can be borne.

FLAXSEED POULTICE.—Take of flaxseed meal a sufficient quantity, and pour on it, little by little, enough cold water to make of suitable thickness. Then heat the entire mass. A small piece of lard is sometimes added to keep it from adhering to the part.

YEAST POULTICE.—Mix a pound of linseed meal or oatmeal into half a pint of yeast. Then heat the mixture over a gentle fire, stirring carefully to keep from burning. When it becomes warmed through, it can be spread on linen like any other poultice. Yeast poultices are often ordered by physicians when there is a fœtid discharge from ulceration, which it is supposed to correct.

BREAD-AND-WATER POULTICE.—Take a slice of stale bread, carefully pare away the hard brown crust which lies around the edge, and then dip it into a vessel of hot water; lift it out at once, and if not too hot, apply to the part where it should go.—*Mechanics' Magazine.*

POISONING FROM ANILINE COLORS.—The *Scientific American* notes the first authenticated case of poisoning by aniline dye, which it says came under its immediate observation. The garments were of a light woolen material, and, having been somewhat worn, were sent to an extensive dyeing and scouring establishment in New York city to be dyed a dark blue. The owner, after wearing the clothes for a few days in hot weather, observed that the blue color stained his undergarments, and in the localities of the stains he became sensible of a cutaneous eruption. The latter soon extended on a large area, which became excessively inflamed; and a pustular state followed, resulting in excruciating suffering and prostration. The case was carefully examined by several eminent physicians of New York city, who pronounced it one of the most severe attacks of poisoning that they had ever encountered, and unhesitatingly ascribed it to the dyeing of the fabric with aniline blue. Had the sufferer been a child or an invalid, the opinion was that the disease was sufficiently malignant to prove fatal. Perhaps the safest rule is to watch all colored goods when worn, and promptly to discard the clothes on the first appearance of the dye's discoloring the garments or person wherever it comes in contact.

DOMESTIC ECONOMY.

A Chapter on Curtains.

A writer in an exchange gives the following hints on curtains: There is no inexpensive part of home adornment that conduces more to make a room look well furnished, excepting pictures, than neat, handsome curtains. Plain though the material may be, if neatly hung and looped back, the room looks attractive, and the house from the outside has a tidy, genteel appearance. Swiss muslin, plain, dotted, figured, or striped, edged with ruffling, two breadths at a window, is quite inexpensive, and gives an air of coziness and comfort to the windows. Then the material can be washed, starched, an ironed as easily as an apron.

Lace curtains, Nottingham lace more especially, are very common at the present time, and may be had for from $2 upward per pair. The choice kinds of lace may be had from $10 to $150 per pair. Most people send them out to be laundried, the prices per pair ranging from 50 cents to $5, according to quality. They often are sent home looking nicely, but very tender, and often spoiled by an extravagant use of soda, by which they are quickly but ruinously bleached.

Let me give the inexperienced a way of doing up their own curtains by which the object can be nicely accomplished at home, and with no conveniences for drying except a vacant room, a pair of sheets, and plenty of pins.

First, shake the dust well out of the lace, then put in tepid water, in which a little soda has been dissolved, and wash at once carefully with the hands, in several waters if necessary, to make them free from dust and color. Then blue the rinsing water and blue the boiled starch quite deeply, as the lace looks less blue when hung against the light. Then, having pinned down the sheets in a vacant, airy room, pin on the curtains very closely, stretched to exactly the size they were before being wet. In a few hours they will be dry and ready to put up again at the windows. The whole process of washing and pinning down should occupy as little time as possible, as lace will shrink more than any other cotton goods when long wet. Above all it should not be allowed to "soak" from the mistaken idea that it washes more easily. Nor should it ever be ironed, as it looks quite fresh and new it properly dried. After having the supervision of the washing and drying of 75 pairs of lace curtains for several years, we conceived a way by which could be avoided the tedious labor of pinning the lace to the floor. We ord red from the carpenter a set of frames very like the old-fashioned "quilting frames," thickly studded along the inside with the smallest size of galvanized tenter hooks in which to fasten the lace, and with holes and wooden pins to vary the size to suit the different sizes of curtains. As we said before, the curtains should always be measured before being wet and stretched in the frames to that size to prevent shrinking. It takes but a few moments to fasten the curtains, and five or six can be put in, one above another, and all dried at once. The frames can rest on four chairs. The cost of them was $4—the price of having one good pair done away from home—and made very tender, and even useless after a year or two. They have proved a great saving of labor and time, a thorough success, and we find them a most satisfactory aid in our system of domestic economy.

There are various fanciful ways for making inexpensive loops for fastening back the curtains in the windows. They may be crocheted in white, heavy tidy cotton and starched, or formed of bits of silk and velvet patchwork, lined, wadded, and bound, or with pieces of rep, wadded and lined, quilted by machine. The size should be one yard long and five inches wide, with neat loops an inch long at each end, which should be rounded or pointed off. In all cases these fancy holders should correspond with the covering of the furniture of the room.

The Currant Catsup Recipe.

EDITORS PRESS:—I notice a slight mistake in the recipe of currant catsup (on page 58 in RURAL of July 22d), which I wish to correct, as, if not corrected, it will prove detrimental to the success of anyone who may try it. Instead of one-half pound of sugar to four pounds currant juice, use one and one-half pounds sugar. The other items are correct.

MRS. L. H. BILTO.

Dutch Flat, July 22d.

GRAVY FOR CHILDREN.—For a pint of gravy you want a large spoontul of flour, stirred smoothly into half a teaonp of the cold milk. Let the milk be boiling when this is added, and kept constantly stirring, or the gravy will be lumpy. If cream is used instead of milk no butter is necessary. The milk should be stirred while ooming to the boil to keep it from burning. It is less likely to burn if a little butter is melted in the spider before pouring in the milk. Add a little salt. For bread and potatoes it is better by far than meat gravy, and not only palatable and wholesome, but nutritious.

INDIAN FARINA PORRIDGE.—To one pint of boiling water add four tablespoonfuls of farina; mix and serve the same as the wheat-meal porridge.

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We wish to thank those subscribers who send in their renewals to the PRESS promptly as regularly as the year comes round. It saves us much expense in commissions for collections and renewals. May we not request more of our good patrons to do so!

NO SUBSCRIPTIONS will be received at less than four dollars a year, except in clubs of five or more, or through club or Grange agents who have sent five or more subscriptions during the year.

Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, August 5, 1876.

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The Week.

The week makes good marks on our pages. Let us draw them to a focus. Wheat improving in Liverpool and holders firm. Barley gaining a slight advance. Dairy products held above the market, which promises soon to reach for them. Fruit shipments to the East bring satisfactory prices. Honey on the eve of wider and more skillful marketing. These things all speak good news to our readers, and it is a pleasure to us to send abroad an issue of the PRESS which shall come to rural homes with a smile on its face like the bearer of good tidings. We can hardly read our pages from week to week without perceiving that the agriculture of our State is awake and pushing onward. Not for us are the griefs of depression. It may be that there is experienced in many of our homes the reflection of the hard times of which the outside world complains, but certainly here least of all of the world the cloud rests. And the cloud will lift and wholly pass away if the glad tidings which we bring to-day but continue and do their perfect work. Thus we trust they will do.

COULD NOT GET ALONG WITHOUT IT.—Mark A. Watson of Antioch, Cal., writes: "I see the subscription for my paper has run out You will please continue it as I do not see how I could get along without it." We intend to make a paper which no farmer in the State can "get along without;" if work and liberal management will do it.

Wheat.

Upon the whole we may say that wheat has made several signs of improvement during the week and that the present outlook exhibits encouraging features. The Liverpool quotation for average California has advanced 5d, being telegraphed now at 9s 6d and 9s 9d. The latest certain charter of a wheat ship has been £2 17s 6d, for Liverpool direct. Taking these data and the corresponding value of wheat here is $1.62½ per cental. Our figuring last week gave the equivalent of the Liverpool price as $1.50 per cental, thus showing an improvement, all things considered, of 12½ cents per cental.

Those who have watched the equivalent of the Liverpool quotation closely have observed that the price the holders of the ships offer here is the bare corresponding rate. They have doubtless thought that in view of an estimated immense crop they could secure all they desired at this price, and consequently there would be no need to buy at an advance for future realization. In this respect the disposition of the shippers has differed from that of some former years. Whatever may have entered into the determination to secure this result, it is certain that there are signs that the speculative spirit is awakening and that wheat is coming to be thought a good thing to put money in. We do not yet see this feeling in our local transactions, but the tide sets that way. A dispatch from New York city, received by the associated press on Monday, says: "Towards the close the market braced up under more cheering advices from Europe, the weather having been less favorable for the crops, while the incoming supplies, under low prices, have greatly diminished, although the contradictory influences have so long been against holders, the feeling is now that there are better times ahead, and on the principle that one extreme is to follow another, the well-informed importers, who are confident there is money in wheat, and a good deal of it, too, are purchasers considerably in advance of the ruling currency for a sound article. Some of the most conservative shippers are picking up all the sound No 1 spring, and shipping in the confident expectation of realizing a handsome profit. In like manner they are contracting for flour for forward delivery at rather better than current prices, or say $4.75 for reliable brands of extra State."

The war et the East, which every holder of grain will watch with interest, shows no signs of abatement. The struggle becomes every day more involved and intricate. It seems now that there is but little hope of a speedy termination of it. Turkey is too sick to make short work of her rebellious provinces, and the prospect is that the contest will be prolonged with alternate victory and defeat for some little time. If this be the case it will have a marked effect upon the value of grain in all shipping countries.

The reports from the English markets show that the millers have been running with exceedingly low stocks, and as soon as they touch the market it bounds. The market is exceeding tender as might be expected when it is at the bottom figure. It may be sent upward by a very little indication of disaster to the English crop, which will come to the reaper during the next fortnight. The natural tendency of the price is now upward and if there appears any show for it there will be an investment in wheat for speculative chances which will considerably improve market rates. How this tendency of affairs can be best turned to profit it is not for us to say. That is a question for every wheat owner to decide according to his best judgment. A meeting of Grangers has chartered a ship at £2 17s 6d, and will take their chances of a rise by having their grain on the way to the market. This looks like using the situation for all there is in it and certainly shows a confidence in the future course of values. Others will doubtless hold their wheat in store as a good investment which is put in at so near the cost price of the commodity that all the usual chances are in its favor. As we remarked at the ontset, the situation shows a fair promise.

PERSONAL.—We had a call, on Friday, from Prof. J. G. Lemmon, whom our readers will remember. He returns from his summer in the southern country full of enthusiasm over its magnificent flora and its glorious people. In Santa Barbara he was the recipient of an ovation and a fine compound microscope from admiring friends. Prof. Lemmon brought us tidings that Dr. C. C. Parry and wife were in the city and would remain several days. Dr. Parry is well known by his valuable labors in the floral field. His eminent standing as a botanist makes him a visitor who brings honor to the place in which he lingers, and we trust our people will make his visit pleasant and memorable. After a few days in the city, Dr. Parry and wife will go to Webber lake and sojourn with Prof. Lemmon and the excellent people whom he has introduced to us in his excursions. Success to them all.

ON FILE.—"San Bernardino," W. D. W; "Truckee Meadows," K; "Eucalyptus and Conditions," J. E.; "When we Mow," and "Views of Life," J. T.; Inquiries: 'Worms in Peare and Applee," S. R. C.; "Preserving Fruit," Subscriber.

The Movement in Honey.

We reported last week the meeting of bee keepers at Los Angeles, which delegated Mr. A. J. Davidson to come to this city and confer with the commission merchants concerning the sale of the honey produced in the southern counties. On behalf of the association, Mr. Davidson visited the merchants and secured from them an approval in general, of the demands of the association. They were that some arrangement be made to deal out the honey only so fast as the trade can take it at living rates to the producers, and while holding it in store to advance three cents a pound on consignments. Something to this end will doubtless be gained by the bee keepers by their united effort, and we trust the industry will not be clouded by farther sacrifice of the product.

It is shown by the statistics gathered by the society that actual production of honey in the following counties: San Diego, Los Angeles, San Bernardino and Ventura, will fall about 250 tons short of the amount estimated two months ago. Although this will relieve the market to this extent, there will yet be a large surplus which cannot be consumed on this coast, and the need of Eastern shipment is imperative. So far the shipments have been comparatively light. Mr. Harrison, of San Diego, has forwarded two car loads, one to Chicago and one to Pittsburg, including 20 cases, which go to the Centennial. We also hear of an accumulation made for the Boston market, but we are not informed whether it has been shipped yet or not.

The association of bee keepers propose to investigate this Eastern field for the consumption of their honey, and we trust they may make satisfactory arrangements for placing large quantities. The enterprise is an important one, and upon it depends to a great extent, the possibilities of the honey industry in this State. We believe that the consumption of honey in this country is only in its infancy, and that it can be immensely increased by all wise measures which will place the article before the consumer in its true light as a valuable food supply. As our State possesses unrivaled advantages in the production of honey, to us belong the profits of the trade, and we hope our apiarians may be able to possess themselves of it.

Jumpers On State Patents.

The daily papers contain startling disclosures of what seems to be a systematic attempt to defraud the holders of lands under State patents by jumping their lands and besieging the land offices with entries. Hon. J. D. Ball, of the State Land Commission, says: "In Yolo county, hundreds of acres of wheat fields have been jumped. One jumper, when he filed in the Land Office, said that there was enough wheat on his quarter section to pay for litigation for several years." W. S. Green, of Colusa, authorizes the statement that in Colusa county jumping has recently been initiated on a large scale. There, nearly 100 persons—clerks and moneyless men—crowded to the United States Land Office and filed homestead claims on land which they had never seen. After filing they went out to look at their property. One man, on his return, said to the Register that he had a big thing; that his land was worth $25 per acre, and that there was wheat enough stacked up to support him for several years. The *Bulletin*, in describing the movement, says: "The jumpers are mostly *dummies*, other persons furnishing the money and paying attorney's fees. Some of the dummies are to divide the land with the attorneys who put them on the land. The property now jumped under this dummy system in Los Angeles is worth over $1,000,000, which, if the jumpers succeed, they will buy for $1.25 or $2.50 greenbacks per acre, clearing at least $800,000. One men, P. H. Newhill, owned 160 acres, for which he has held a State patent for several years. His land is all in cultivation with barley, and canary seed. Returning home one evening from Los Angeles, he found his doors broken open and jumpers in possession. Mr. Newhill approached his house, a jumper stepped out of the door, and raising a double-barreled shotgun, said: "Stop! Don't you come near here, or I'll blow your head off. Your d—d State patent is of no account. This is my land now. I claim it." So the unfortunate holder of the State patent went away, wondering if the State of California gave him a patent for his land, took his money, and then passed laws making it legal for a stranger to blow his head off, if he went on the land, even to get a clean shirt or to cut his crop of grain.

It is gratifying to announce that a bill is now before Congress which will establish the patents granted by the State, and insure to bona fide settlers their houses and improvements.

CAUTION.—We have reason to believe that the firm "A. F. White & Co., Nashville, Tenn.," is a fraud. They advertised chufas and Japan peas in the PRESS and their advertisement was accompanied by proof of responsibility which was considered unexceptionable. Of late our letters to the firm have been returned by the Nashville postmaster as uncalled for. We learn also that one of our readers has received no response from a money letter which he sent them. We feel chagrined at being duped by the swindlers, and deeply regret that our friends should have suffered, but the pretensions of the rogues would have deceived the very elect. We shall learn a lesson of redoubled scrutiny for the future.

QUERIES AND REPLIES.

Rabbits and Borers.

EDITORS PRESS:—In your issue of July 22d, "E. R. S." of Colorado, makes inquiry regarding rabbits and borers. Allow me to add to Nos. one and two of your reply:

1. The best wrapping I have used is common newspapers. Wrap loosely and tie at top and bottom to keep in place; the paper resting on the ground and extending upward 18 or 20 inches. Coal oil will kill the trees if applied too freely; blood looses its odor in a day or two and becomes useless. Any green, tender plants, like lettuce growing around the tree, will save the tree, because they will eat the tenderest plants first; but a well regulated double barreled shot gun in an orchard from sunset till dark, and from daylight till sunrise, is perhaps, the best remedy.

2. The "tube" process for borers is objectionable, especially in large orchards if help is scarce and time valuable. The borer is often found in places inaccessible to the "tube," as between closely growing roots, or on the under side of roots, when there is an open space between the ground and tree stem, caused by the action of the wind, or the shrinking and cracking of adobe or clay soils in dry weather. A moderate application of lime or ashes is good for the tree, but will not wholly discourage the fly. It may kill the grub while young, and by its closely fitting qualities when dry prevent the fly from depositing its eggs at or near the surface of the ground; but the fly will not suffer defeat thus, but will deposit its eggs above the embankment, and if driven to extremities will sometimes make their egg deposits in the forks of the tree. I have never seen trees molested by rabbits or borers where tansey was growing round their base.—ORRA GARVIN, Kingsburg, Fresno county, July 26th.

We thank our correspondent for his comments. If any reader ever knows a better thing than he reads in the PRESS, by all means let him inform us of it at once. We are interested in showing up nothing but the best practices, and if anything is better than our experience we are glad to know it and grateful to any reader who informs us.

The Trees Not True to Name.

EDITORS PRESS:—I have read a communication in your issue of the 29th inst., from Mr. Frank McDonald, complaining that the Beatrice trees I sent to him and others were untrue. In reply I will state that when I first heard of that peach, I sent to Mr. Rivers, of England, for buds of it. They came to hand but in bad order, and finally got lost. Then as a last chance to get the peach in season to propagate that fall, I sent to S. G. Bilyeu, of Littleton, Halifax, N. C., who was well known to have it in abundant bearing. He sent me 100 buds, purporting to be and labeled Beatrice. Later I found that P. J Berckman, of Georgia., had the Beatrice I sent to him and received 300 buds, which I budded in March in my home nursery. The Bilyeu buds were put in nursery at M. R. Miller's in Pleasant valley, and these and others of the Berckman lot were what I sold in full faith that they were true. I had no reason to suppose any mistake had been made, and could not ascertain that fact until the trees came into bearing. I regret that it is so, and if those to whom I sent trees which proved untrue will do me the favor to notify me, I will send them trees or buds to their satisfaction, which are known now to be true. I had abundance of bearing one year old Beatrice last year in the nursery rows, but their removal last winter prevents fruiting this season.—D. E. HOUGH, Niles, Cal.

Mr. Hough, we think, frees himself from any intention to deceive and is evidently disposed to make right the unconscious wrong. We trust this experience will teach all nurserymen not to risk their good names on anything without actual test, unless sales are made with full information of the chances involved.

Treatment for Dodder.

EDITORS PRESS:—Mr. C. W. Clark wishes to know how to get rid of dodder in alfalfa. In February, 1875, I seeded 12 acres to alfalfa. In May I cut the first crop At that time the dodder had made its appearance. In July, about the 10th, I cut it the second time, when I found about 50 patches of dodder, covering from one yard to one rod square, mixed with wild morning glory. I concluded to try an experiment, and on the 28th of August, when it was quite hot, I put all of my stock on that field and fed it off quite short, and left my sheep and hogs to graze it off very close to the ground, so that the heat of the sun would have full power on the crown of the growth. I left my stock to graze it until the 1st of February, 1876, when I removed them and let it grow up. I have cut the second crop from it this year, and have not found a rod square of dodder or morning glory in the field. I am perfectly satisfied if sheep are permitted to graze it close in August and September that it can be annihilated.—W. G. PENNEBAKER, Farmersville, Tulare county, Cal.

We thank our correspondent for his note of experience. Such favors from our readers delight us greatly and are a benefit to all. We notice by our exchanges that the dodder has appeared in Siskiyou county, where it is regarded as a novelty. It has been known in other parts of the State for several years. As it is spreading, all information concerning it will be useful.

Alfalfa for the Dairy.

EDITORS PRESS:—In your issue of July 22d, the question is asked by "Colonist," of Los Angeles county, "Is alfalfa good for milch cows when bitter making is the object?" For three years I have been feeding my cows on alfalfa, pasturing in summer and feeding hay in winter, and I find nothing that I ever fed before will compare with it. I get a greater yield of milk and very rich, but my cows have a box of salt in the field and one in the corral, which is very necessary. I am now making cheese (on a small scale) from the same kind of feed, and find it to be excellent for that purpose.—W. G. PENNEBAKER, Farmersville, Cal.

A Correction in Mangolds.

EDITORS PRESS:—There was a mistake in my article on mangolds. I said, "The six acres sown on the 7th June, 1875, were sown with imported seed, *three* pounds per acre;" which should read, "*eight pounds per acre*," at a cost of 75 cents per pound. This is important, as on a plentiful supply of young plants, in order to have a good selection of the best plants in thinning, or singling them out, depends in a great measure the success of the crop.—ROBERT ASHBURNER, Baden Farm, August 1st.

Leaky Cheese.

EDITORS PRESS:—I see the butter escaping out of my cheese on to the board around the hoop. I have asked several cheese makers the cause of it, and have got as many different answers. Can you or any of your numerous readers tell me the remedy. A DAIRYMAN.

This case is a little different from what is understood by leaky cheese. Cheese may leak on the shelves from too great heat in the curing room or from several causes in the method of making. We do not understand just what the trouble is with our querist. Who will tell?

[Editorial Correspondence.]

The Centennial at Philadelphia.—No. 10.

The extreme heat of the past two weeks has rendered locomotion or even writing, especially to one long accustomed to the cool and genial climate of San Francisco, so grievous a burden that your correspondent has been barely able to endure the same by keeping as quiet as possible within the shady precincts of the Grange encampment, which has been universally voted by all visitors, as one of the coolest and most quiet places of resort in the vicinity of Philadelphia. On Sunday last, however, the 16th instant—three days ago—the thermometer marked a most welcome change by falling from well up in the nineties to a little above eighty, under which condition I have again ventured to find my way once more to the Centennial grounds, for the purpose of jotting down a few more notes for the benefit and possible instruction of the readers of the PRESS.

The exhibition has now advanced a little over two months in its progress, and still continues the theme of universal commendation. Foreign commissioners, exhibitors and visitors all commend it, both in the manner in which it has been gotten up, and in its management as well. They bear willing witness that all has been done that it has been possible to do to expedite business, and to ensure comfort and safety within the grounds. The means of transportation to and from the same are all that could be expected, and prove adequate to the largest demands. Your correspondent, in a recent interview with each of the two French delegations of workingmen now here, was pleased to hear them express their most unqualified approbation both as regards the matter and manner of the exhibition.

The Attendance.

The number of paying visitors gradually increases, notwithstanding the extreme heat, and has already raised the average daily attendance, from the opening to July 9th, to about 26,000. This average will no doubt be largely increased by the rush which will come in as cool weather approaches, fully up to the figures which I gave in one of my early letters—some 32,000—which, however, is only about one-half the estimate made and published by the Centennial commission just before the opening. In this connection it may be interesting to note the average attendance at the various European international exhibitions, which has been set down as follows:

Year.	Place.	Number of Visitors.	Days open.	Av'ge No. per day.
1851.	London.....	6,039,195	141	42,831
1855.	Paris.....	5,162,330	200	25,811
1862.	London.....	6,211,103	171	36,322
1867.	Paris.....10,000,000		210	47,619
1873.	Vienna..... .	7,256,687	186	39,003

As already stated, the average at our Centennial has as yet reached only about 26,000; but it is possible that with the increased numbers who will come near the close of the exhibition the attendance may go up to the general average of European exhibitions—a little over 38 000. The time of continuance of the Centennial has been fixed at 157 exhibition days—the smallest number of any of the European exhibitions, with the single exception of that of the first one at London in 1851.

I have thought it might be more interesting to the readers of the PRESS, before completing my review of machinery hall, to turn for a while to other features of the exhibition and make at least some general reference to the exhibits contained in the other principal buildings. With that view we will now enter

The Main Building.

This is the largest structure which has ever been erected for exhibition purpose, if indeed it is not the largest ever erected for any purpose whatever. It is over a third of a mile, or 1,876 feet in length—a foot for each year of our era. Its width is 464 feet, and it covers an area 21½ acres of ground. It is constructed almost entirely of iron and glass. The facades at either end are 90 feet high, while the ornamental corner towers are 70 feet in hight. The exterior is gay with turrets, flags and trophies. Empty, it would afford standing room for 450,000 people—about one-half the entire population of California. Its sides and ends are provided with galleries about 30 feet wide, which are devoted mostly to exhibits, connected with education. Although built with the intention of being taken down at the close of the exhibition, it is nevertheless a substantial and highly ornate structure, and one which presents a fine architectural appearance. Its cost was about two millions of dollars, and the wonder is how it could have been built for so small an amount of money. Readers may become familiar with the appearance of this building from the prospective view given of it in the engraving on this page.

In arranging the exhibits a grand central aisle, some 35 feet wide extends, unobstructed, except by a few minor matters, entirely through the center of the building; this aisle is crossed at its center by another of the same width, running north and south across the width of the floor. The exhibits are arranged, by nationalities, on either side of the main aisle, as shown in the accompanying diagrams—the small and more distant nations being given the place of honor, near the main entrance.

As the visitor enters this vast structure for the first time, and passes up a short distance into the main aisle, his eyes encounter one of the most magnificent sights that can well be conceived. A perfect wilderness of costly elegance, in every branch of manufacture and art, is spread out before him in a great panorama, along which his eyes wander until he is lost in wonder and amazement.

It is obviously impossible to give the reader any adequate conception of the interesting and imposing character of the exhibition in this building. At the first glance the eye is completely bewildered, as was the case with my lady friend, at the unique and dazzling exhibit which is encountered on all sides. The many beautiful articles in glass, steel, bronze, lacquer, gold, silver and plated ware, China ware, cabinet ware, elegant shawls, silks and every description of dry goods, fancy articles, etc., etc., all go to make up a grand aggregate, which has never before been seen upon this continent, although its counterpart and better, perhaps, may have been seen at Paris or Vienna; for Europe excels in this class of exhibits.

A Bird's Eye View

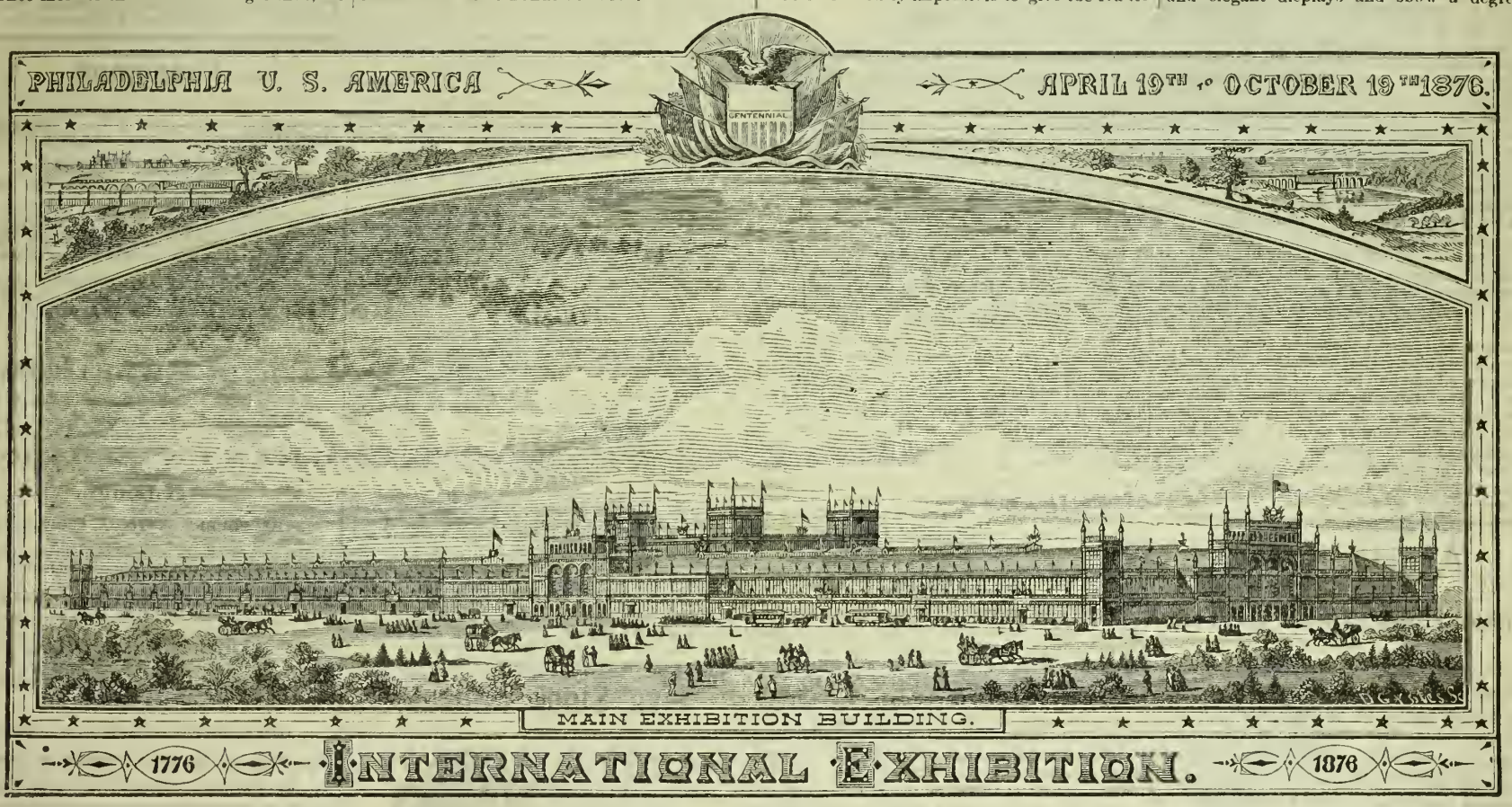
From the gallery at the eastern end, will perhaps give the visitor the best general idea which can be obtained of the variety, beauty and grandeur of the display in this building. From that elevated point a fine view can be obtained looking down the broad, central aisle. The whole space of nearly 22 acres of the collective industrial products of the world is spread out before the observer, almost entirely unobstructed by column, roof or gallery. Twenty-eight distinct nationalities are there represented—the United States occupying but a little over one-quarter of the space. The mass and distance is so great that it is of course impossible to particularize the various exhibits or to give anything more than a faint idea of the grand whole. Directly before the observer on either side are seen first the products and our own country. The cotton and woolen mills of the United States, and particularly the peerless exhibit of the Mission mills of San Francisco, are largely and most creditably represented. The goods are mostly shown in elegant cases, and generally in the various grades of the manufacture, from the raw material and inferior goods up to those showing the highest progress of the several exhibitors in the textile art. American carpets are here that for beauty of design and finish seem almost perfection itself; and other articles in the dry goods line that may well make us feel proud of the progress which our country has made in that direction. The exhibition made by the different book publishing houses of the country is large and handsome. The display of American China and crockery ware and terra cotta manufactures is also very fine, many articles being remarkable for their beauty. In hardware there are also a large number of exhibitors, who make full and elegant displays and show a degree of finish in their goods that seems almost perfection. In this line the inventive genius of our people is favorably shown; but the display of instruments for the destruction of life is painfully prominent.

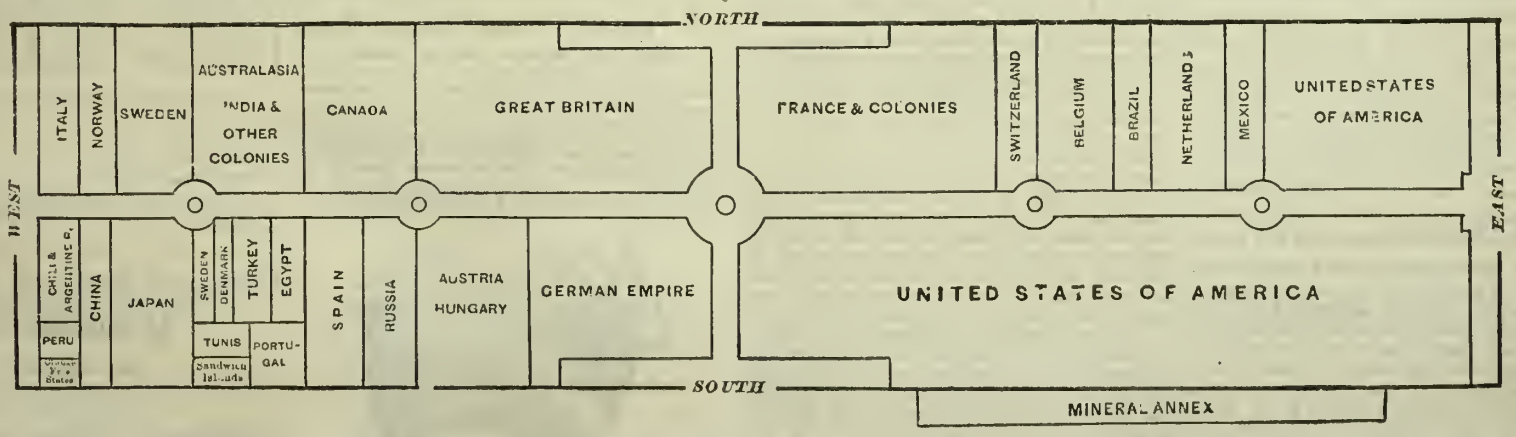
Advancing the eye Along the Main Line.

As will be seen by our diagram, the United States exhibit extends on the left to the center of the building, with a "mineral annex" which has been added as a separate structure on the outside. On the right we proceed but a short distance before we come to the confines of our nearest geographical neighbor—Mexico. Continuing onward from thence we soon get mixed up, geographically, by finding the great empire of Brazil sandwiched between the two little nationalities of Belgium and the Netherlands. Passing still further in the same direction and skipping over Switzerland, we come to the great nationalties of France, Great Britain, Germany and Austria. Still further on in the distance, not observable by the eye, but known to be there by the diagram, which we still hold in our hand, may be dimly seen, most of the other foreign nationalties, all located with a most happy disregard for geographical position.

The diagram shows the relative proportion of space occupied by the respective nationalities, as well as their positions in regard to each other and in the building. With few exceptions, as shown, the space occupied by each

(Continued on Page 100.)





GROUND PLAN OF MAIN BUILDING.

Continued from Page 91.

Duke 2nd. 5,368. got by the Duke of Devonshire's 23d Duke of Oxford, and out of Kirklevington Duchess 7th (whose half mother Mr. Groom recently sold to J. R. Shelly for the rather long price of $5,000) by Duke of Kirklevington, his gr. dam being Kirklevington 18th, whose portrait is honored with a place in the 20th volume of the English Herd Book. Kirklevington Duke 2d is of a dark, rich roan color, and is a true Bates bull in character. His head is masculine with a pair of rather strong clear colored horns. His eye is prominent, but mild. His obliqne shoulders and long hindquarters at first sight give him the appearance of being a short bull, and it is not till you have had time to take in the full length at one view that you can appreciate the lengthiness of the bnll. His well sprung ribs, deep flank, full twist, prominent brisket with quality of hair, and handling such as we have never seen excelled in any bull, make him a bull to be desired, and we may safely say that whilst Mr. A. keeps him in his herd, there is no danger of his making any more out crosses on his Bates cows for sake of improving their quality. He has ample material for doing so in the beautiful Kirklevington Duke 2d. There are now five cows on a visit to him belonging to other parties.

The other bull intended for nse in the herd, and not inferior to any in point of breeding, is the Princess bull, Grand Prince of Lightburne, with three Duke crosses, after which comes old Rowley, by the celebrated Duke of Gloster. We consider Mr. A. fortunate in securing snch a highly bred bull to nse in his herd. He is likely to make a large, good animal with great depth of body, and lacking in those good qualities generally admired by all good breeders. In the same catalogue is the herd of S. B. Emerson, which was described pretty fully in our columns abont two years ago, and as he had not nsed any bull but imp. (29,964) Sheriff, 4,340, since that time we presume that the herd has increased in value as in numbers.

We expect in another article to speak more especially of Mr. Ashburner's methods of feeding and farm management in geueral. He is doing some things in these directions which are well worthy of note.

Arboriculture.

Timber Breaks for Winds and Fires.

Editors Press:—I have seen of late, not only in your paper bnt also in various others published in this State, continued accounts of damage to the grain crops by severe winds. Complaints are heard from all quarters of the threshing ont of immense quantities of grain by this cause; the farmers all bemoan their losses but do not seem to do anything to prevent their recurrence in future. There are also accounts of

Great and Damaging Fires

Which sweep through whole sections of country, destroying everything in their course. The origin of these fires is not always known, but the reason of their great destructiveness is plainly evident. On the plains the country is one continuous grain field; only the fences show the boundaries of each man's land. Grain is sowed close up to the fences on each side, so that in event of fire the fence is not only no barrier, but by its destruction it runs np the damage. I was witness to one of these fires near Vacaville, Solano county, about three years ago. A fire started in a field of standing grain, one morning of a very hot day. No one knew jnst how it was set, bnt the snpposition was that a traveler, who passed by smoking, threw his cigar into the fence corner, and the strong north wind soon fanned it into a fierce blaze. However that may be, the fire ran through the field, across the valley, into adjoining fields, and ran toward the town some three miles, destroying grain, hay, barns, fences and houses in its course. Twice did the neighbors and townspeople essay in vain to check its course, but it swept by them, urged on by the fierce wind. The mercury rose to 119 deg. in the shade and still the fire ran on. Finally some fifty of the men, with their teams, water-wagons and sacks, kept the flames in partial check, while others plowed a number of furrows in the narrowest part of the valley. All, then, going to that place awaited the conflagration and checked it there.

Such things, and from such trivial causes, are liable to occnr in any year, and do so to some extent. They do immense damage, and being summed np all together foot np to alarming figures.

Another thing, California is notoriously

A Dry Country.

The summer is one long, parching drouth. Old pioneers tell ns that the water supplies are decreasing, the rivers are running low Well-known springs and water courses of "49" have dried up. It has been proved to the satisfaction of science, that the timber of a country determines its moisture. Where there is very much or extensive timber the soil and climate will be comparatively moist and moderate. In the countries of the old world, where researches have been carefully and scientifically conducted, the fact is shown that the clearing of immense tracts has lowered the water supply and rendered the contrast between the summer's heat and the winter's cold much more marked. This change is so marked that the governments of some countries offer premiums and inducements for the planting of trees.

The above will apply equally well to our own country, the United States. In the Eastern States, and in California as well, the alteration is perceptible. The clearing up and settlement of our vast backwoods has changed, and

Is Changing our Climate.

By the cutting of our California wastes of redwoods and pine lumber, we have altered and will continue to alter our climate for the worse.

For this state of things there is obviously bnt one remedy and that one which you, Mr. Editor, have been urging on our attentions for several years:

Tree Planting,

Setting out of trees and shrubbery, horticulture, timber raising. For both of the evils of which I first spoke this is *the* remedy. Let the farmers who are most damaged by the fall winds, devote a strip of land, say two rods wide and extending the length of their farms or more, to trees. A strip of this width would contain three rows at least of trees, which, when a few years old, would form an effectual wind break. If necessary, two such strips might be planted on a quarter section. Should a neighborhood combine to adopt this suggestion, the strip of timber might be extended in length, for miles. When grown, it would be impossible for the wind to do a fraction of the damage it now does by threshing out the ripened grain. The course of these timber belts would, of course, be determined in each community by the nsnal direction of the damaging winds. I suppose that in this State the worst winds are the northers. In this case the strips of timber would extend from west to east or thereabouts, varying, perhaps, in different localities. Not only would these timber belts break the force of the wind and prevent damage thereby, bnt they would be most effectual safegnards in case of fires. At them the flames could be stayed and damage confined to a very limited area. The plan would also counteract the injurious climatic effects of clearing off the natural timber lands.

Counting the Cost.

There may, and will, be an objection raised to my idea. In a strip of land two rods wide to be planted; and in another strip as large to the north of it, which will be shaded by the trees, four or five acres of land will be lost. Ordinarily this land will produce, say 40 bushels to the acre, which would be worth at one and a half cents, over $100 every year. This would be totally lost and I cannot afford such an expense.

Let ns look at this. A 160 acre farm at the same rate will annually produce a crop worth $4,320. The per centage of wastage involved in snch use of the land would be about two per cent. Candidly, is this a large premium to pay for such an unwritten insurance policy as it affords? When the companies charge four to six per cent. to insnre the farm property, if the farmer can insnre himself for two per cent. is it not economy?

But on the other hand, does it involve any loss of land? I do not restrict any one in his choice of trees. To be most effectual tall trees should be preferred. But an orchard might be planted of standard trees, which would repay the planter much better than a crop of wheat on the same ground. Before the trees attained bearing size, the ground between the rows could be profitably planted to garden.

If the taste of the farmer does not incline to horticulture, or if he has already orchard enough, the better quality of timber trees will prove very profitable.

We have already noticed in your excellent paper a calculation of the value of a tract of timber (10 acres we think) land at $50, in 20 years time. The profit, or rather final value, was something enormous. This calculation supposed that nothing but timber was raised on the land. But in the meantime a vegetable garden would pay as well as any crop, and supply a necessity of every farmer's family.

You who read this, do not read it, say "that's so," and forget it; but *act* on the suggestion. Make the calculation for yourself and *try it*. The money directly saved, we are confident will pay for the land and the trouble, and the final value of the timber we are sure will foot up a handsome profit. Sentinel

Upper Lake, Lake county, Cal.

Our Poultry Department.—We are in receipt of frequent letters expressing admiration of our Poultry Department. Mrs. Stoddard writes: "I look for Mr. Eyre's articles the first thing." Mrs. Pike says: "They are just what we want, common sense, plain and to the point." A. P. Smith writes: "I shall not take the *Poultry Bulletin* another year, as I get more information in regard to management of poultry from Mr. Eyre's writings in the Rural Press, which I shall keep for reference." We are glad to know that our readers find our Poultry Department so valuable.

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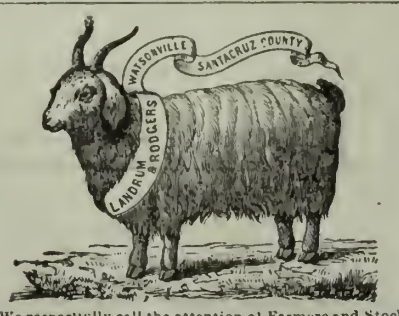
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Statement, December 31st, 1875.

TOTAL RISKS WRITTEN	$3,845,189.00
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The Managers have the honor to announce that the forthcoming Exhibition will be opened to the public on

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MUSICAL CONCERTS AFTERNOON AND EVENING.

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The Exhibition will Continue at least One Month.

THERE WILL BE NO CHARGE FOR EXHIBITING SPACE.

Application for space or for information should be addressed to the Secretary of the Board of Managers, Eleventh Exhibition, 27 Post street, San Francisco, or to J. H. Gilmore, Supt., at same address.

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We do a strictly Commission Business, and place our rates of Commission upon a fair legitimate basis that will enable the country at large to transact business through us to their entire satisfaction.

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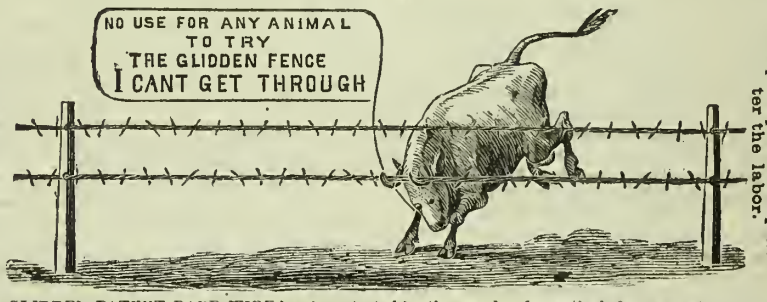
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THE ENAMELED STEEL BARBED FENCE WIRE

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It makes the most durable, safe, and reliable fence in the world against stock of all ages.

About one-half the cost of any other good fence, and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8 Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

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CENTENNIAL HAY PRESS.

Farmers and Hay Pressers will find it to their advantage to examine this Press before buying any other. It is built compact, combining lightness for moving with the greatest power and durability in its working parts, capable of making the average 250 pound bale, more or less, baling 10 to 15 tons per day, with three men and a pair of horses, they traveling only 36 feet to operate it. No excavations required for this Press. This is the original Gove Press improved, after an experience of building Presses in the States the past 15 years, where they have the best of satisfaction. **Price, No. 1, $250.**

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Continued from Page 96.

country has a frontage on the main central aisle, and in this particular portion of its space each nation seeks to place its chief and most attractive treasures. Hence the superior views obtained along the main aisle. Some countries have enclosed the space allotted them with architectural structures of pannel work, with ornamental and emblematic archways opening into the main aisle, and lesser ones furnishing connections with the various avenues and alleys by which the space is divided up into convenient areas for displaying and examining the exhibits. Miniature marble palaces are placed at intervals along the central aisle which are devoted to the sale of that great American hot weather beverage—soda water. The central position is occupied by a raised circular platform on which, in the early days of the exposition, Gilmore's famous band was wont to discourse sweet music to the loitering crowds, which, when the band was playing, filled all the available standing room and occupied the numerous rows of seats which were placed fronting the center for quite a distance along the main aisles which diverge therefrom. This platform is now occupied as a resting place for the tired sight-seers who are constantly passing to and fro through the labyrinth of passage-ways. In its very center, mounted upon a suitable pedestal and protected by a huge bell-glass, is shown the massive, emblematic silver vase, recently presented by his admiring friends to the distinguished poet and editor—William Cullen Bryant. This vase is one of the largest and most elegant works of the kind ever executed. It was recently described in the columns of the PRESS.

The Exhibits in the Main Building

Are chiefly confined to the following groups:

Materials and manufactures used for food or in the arts—the results of extractive or combining processes.

Textile fabrics—wearing apparel, costumes and ornaments for the person or parlor.

Furniture, musical instruments and manufactures of general use in construction, as of dwellings, etc.

Apparatus and methods designed for the increase and general diffusion of knowledge. Illustrations of engineering operations and aids thereto.

Objects illustrative of the present and past efforts for the improvement of the physical, intellectual and moral condition of mankind.

Articles of *virtu*, taste and curiosity. Objects, statuary groups, etc., illustrative of various nationalities.

Egypt and Japan have introduced their exhibits into this building. Each nation here makes such exhibits as are best illustrative of its social relations, of the condition of the arts and sciences within its dominions, past and present. Sweden, Anstralia and Chile have been suffered to depart somewhat largely from the general plan, in order to bring all their exhibits more closely together at a single point. There is no machinery in the main building.

National Characteristics.

One of the chief and most interesting features connected with the main building is the effort made to illustrate there the national peculiarities of the several peoples there represented. Going through this building is very much like making a tour of the world. You meet the inhabitants of the several nations in their various costumes; you behold their national characteristics truthfully and literally portrayed. This feature of the exhibition was pleasantly illustrated in the early part of the exhibition by a little incident, which may be told as follows: Three little boot-blacks, with their boxes over their shoulders, more intent on seeing the show than in the prosecution of their calling, sauntered into this building and stood for a while gazing upon the novel scene around them, when, with a happy thought, one of them fully took in the situation, and exclaimed to his two companions:

"Boys, let's take a trip to Germany."

"Yes," responded another, "and I'll make the trip pay by giving you two fellers a job."

Off they started into one of the alleys where he placed his feet on the boxes of the other two, set them to work polishing his ragged shoes, at the same time thrusting his hands into his pockets with the most nonchalant air imaginable, drew out his handful of change from which to select the pennies to pay for his "shine." A number of bystanders who had been drawn together by the off-hand notice and novelty of the occurrence, were not a little amused by the scene. W. B. E.

Exhibition Grounds, July 18th, 1876.

THE CONVEYANCE OF EXPLOSIVES.—Revised regulations for the conveyance of gunpowder, gun-cotton and explosives generally, have been issued to the British army. As an ordinary rule, the gunpowder, small arm ammunition and other explosives will be sent by contract. Carriers, and articles so conveyed, when they leave the ordnance store department, and until they reach their destination, will be under civil custody. Care is therefore to be taken by the officers making issues that proper packages are used. On an emergency explosives may be conveyed under the Secretary of State's warrant in charge of a conductor, in which case precautions of a very special character are enjoined. One of the new rules is that gunpowder and gun ammunition may be sent together, but never with other explosives. Gun-cotton may accompany small arm ammunition, but filled shells and war rockets will be sent separately from either. Specific orders are given against smoking and against the possession of lucifer matches by any one employed in the conveyance of explosives.

The Centennial Trial of Mowing Machines.

From the Philadelphia correspondent of the Cincinnati *Gazette* we learn the following of the success of a machine represented in San Francisco by Baker & Hamilton. The correspondent writes: "The most important series of field trials that perhaps have ever taken place in this country have been in progress since the 26th of last month, under the direction of the international jury, of grass-mowers, rakes and tedders, at Eddington, 14 miles from Philadelphia, and of reapers and harvesters at Schenck's station, close by. The grounds at Eddington were ample and well chosen, and the grass was in good condition. The weather had been dry and hot, registering 98 degrees in the shade. The number of competitors embraced nearly all of the leading manufacturers of the United States, who have their machines at the exposition. The mowers were, of course, the most important feature, although much interest was taken in the animated struggle between the numerous rakers and tedders. The scene was exceedingly interesting as each mower was called into action at the order of jurors, and proceeded to the work allotted them, followed closely by the jurors themselves, and a very large crowd of farmers who were in attendance as spectators; but as the character of the ground and condition of the grass presented no special difficulties, the interest, under the intense heat of Sol's burning rays, began to flag, and many were inclined to seek the shelter of the tents and the shade of the trees. But lo! the sky was suddenly overcast, and soon a violent storm of wind brought a deluging rain which lasted for several hours. This, however, instead of being unfortunate, was most fortunate and opportune, for it changed the conditions completely. The grass now was in the most unfit condition for mowing, and the jurors with ready wit took advantage of this storm, and as soon as it had partly abated, ordered out a large field roller. This was run over the grass, breaking it down and laying it flat on the ground. The mowing machines were now ordered to follow immediately in the wake of the roller, and try what they could do. Some would haggle at it, others glide over it, and the machines were one by one drawn off, acknowledging the thing could not be done by them. But judge of the astonishment of all the spectators when, at the last hour, up comes the "Champion" light mower, ready for the jurors' orders. The word was given, the roller went ahead, the "Champion" following within 200 yards, and instantly the knives taking deep hold of the flattened mass, cut it clean off the ground, making as perfect and neat a swath as it did in the forenoon, when the sun was shining and the grass standing erect.

Little was said. The surprise for the moment was too great, but the jurors at once pronounce "the work very well done indeed, and good enough for anybody." When the cutting tests were concluded, the important question of which was the lightest draft machine was then in order. These operations occupied a full day, and were conducted with great care and precision. At the close the "Champion" was again victorious, proving itself the lightest in draft, as it had proved the most perfect in cutting.

Hints for Thought and Practice.

The following are useful memoranda for hydraulic calculations: 1 cubic foot of water = 62.425 pounds; 1 cubic inch of water = 0.03612 pounds; 1 gallon = 10 pounds, or 0.16 cubic foot. The pressure of water per square inch in pounds = the head in feet multiplied by 0.4335. Sea water = 1.027 weight of fresh water, or 64.11 pounds per cubic foot.

Camphorated oil is highly recommended as a furniture polish. This is simply sweet oil in which gum camphor is dissolved. The camphor serves an additional purpose of driving away moths.

An ordinary boiler furnace requires 300 cubic feet of air for the consumption of each pound of coal. From 13 to 20 pounds of coal may be consumed per superficial foot of fire grate. Three-quarters of a foot of fire grate are required to evaporate a cubic foot of water.

The bindings of books may be preserved from mildew by brushing them over with spirits of wine. A few drops of any perfumed oil will secure libraries from the consuming effects of mold and damp. Russia leather, which is perfumed with the tar of the birch tree, never molds or sustains injury from damp. The Romans used oil of cedar to preserve valuable manuscripts. Russia leather covered books, placed in a stationer's window, will destroy flies and other insects.

To make fly-paper: Dissolve, in one gallon of warm water, one ounce of arsenic and half a pound of lump sugar, in which steep sheets of white filtering paper for a few moments, until they are thoroughly saturated, during which time the solution should be kept agitated. Then hang the sheets on lines, and when dry, cut up into pieces of convenient size for use. When required for use, place them in shallow plates or saucers, and moisten by pouring on them just as much water as they will absorb. They will be found to attract and instantaneously kill flies, wasps, gnats, mosquitoes and similar insects.

The actual horse power of pumping engines = quantity of water raised per minute in cubic feet multiplied by hight elevated in feet, multiplied by 0 0023 The indicated horse power of engines is found by dividing twice the product of the area of the piston in square inches multiplied by the average pressure of steam in pounds per square inch in cylinder multiplied by the number of revolutions per second multiplied by the length of the stroke in feet by 550.

Useful numbers for pumps: The square of the diameter multiplied by the stroke, multiplied by 0 7854, gives capacity of the pump cylinder in cubic inches; by 0.002833, in gallons; by 0.0004545, in cubic feet; by 0.02833, in pounds fresh water.

Resistance in pounds per ton on different roads, exclusive of the gravity: Stone tramway, 20; paved roads, 33; macadamized roads, 44 to 67; gravel, 150; soft sandy and gravelly ground, 210.

The following are the ordinary dimensions of windmill sails: Length of whip, 30 feet; breadth at base, 12 inches; depth at base, 9 inches; breadth at tip, 6 inches; depth at tip, 4½ inches. The effective horse power is found by dividing the product of the total area of sails in square feet and the cube of the velocity in feet per second of the wind by 1,080,000.

General News Items.

BELKNAP has been acquitted.

TEXAS has now over 80,000,000 acres of public land.

THE gold excitement in Northern Georgia is at fever heat.

TWENTY-ONE wheat vessels cleared for Europe last month.

"SMUGGLER" beat "Goldsmith Maid" at the Cleveland races.

MOST REV. SAMUEL BUTCHER, Premier Bishop of Ireland, is dead.

THE enrolled militia of San Francisco this year numbers 13,814. Last year the return was 14,420.

IT is stated that the Turkish government has decided to issue paper currency to the amount of £3.000,000.

THE Atlantic coast has been visited by a heavy and continued rainfall, which is of vast benefit to the country.

THE new Liverpool docks are completed, so that now the docks of that port cover an area of 420 acres, and are valued at $100,000,000

THE appropriation for the expenses of the Congressional committee to inquire into the Chinese immigration has been passed.

GRANT is said to have remarked the other day that he should go to England in March and visit his daughter. He thought he might travel in Europe a year or two, and then return home by way of China and California.

THE mother of Charlie Ross is stopping at Rockfield, Mass., with her five remaining children. She believes that her boy will yet be recovered, or that she will receive positive evidence of his death.

IT is reported that Garner, by his will, has left $1,000,000 for the support of an opposition ferry running to Staten Island, and that the New York club house at Stapleton is made a present to the club. The house cost $174,000.

THE debt statement shows a reduction of $1,138,033. Coin balance, $59,843,684: currency, $12,500,349; coin certificates, $2,931,300; specie deposits for redemption of certificates of deposit, $32 815,000; outstanding legal tenders, $36,919,228.

THE terms upon which Professor Seeyle accepts the presidency of Amherst college are said to be as follows: He is to have $4,000 salary, without any perquisites, and to have the liberty to complete his present term in Congress; which details are in accordance with his own wishes.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

FOR WEEK ENDING JULY 25TH, 1876.

John W. Emerton, S. F., car wheels; Samuel Green, Los Angeles, Cal., compositions for manufacturing illuminating gas; George Greiner, Sacramento, Cal., violin pianos; John Q. Grinnell, Stockton, Cal., field derricks; Caspar T. Hopkins, S. F., street railroad rails; Anson Scott Levake, S. F., car wheels; Nills A. Olsen, S. F., meat choppers; John W. Platt, Mineral City, Nev., fuse lighters; Geo. C. Price and Thos. G. Morgan, Santa Rosa, Cal., earth boring machines; Richard Whitlock, Pacheco, Cal., farm gates; John H. Woodrum, Portland, Ogn., combination locks; Samuel H. Wheeler, S. F., valve motion for steam engines.

——The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

Contents of Pamphlet on Public Lands of California, U. S. Land Laws, Map of California and Nevada, Etc.

Map of California and Nevada; The Public Lands; The Land Districts; Table of Rainfall in California; Counties and Their Products; Statistics of the State at Large.

Instructions of the U. S. Land Commissioners.—Different Classes of Public Lands; How Lands may be Acquired; Fees of Land Office at Location; Agricultural College Scrip; Pre-emptions; Extending the Homestead Privilege; But One Homestead Allowed; Proof of Actual Settlement Necessary; Adjoining Farm Homesteads; Lands for Soldiers and Sailors; Lands for Indians; Fees of Land Office and Commissions; Laws to promote Timber Culture; Concerning Appeals; Returns of the Register and Receiver; Concerning Mining Claims; Second Pre-emption Benefit.

Abstract from the U. S. Statutes.—The Law Concerning Pre emption; Concerning Homesteads; Amendatory Act Concerning Timber; Miscellaneous Provisions; Additional Surveys of Land for Pre-emption; List of California Post Offices.

Published and sold by DEWEY & CO., S F Postpaid, 50 cents.

THE NEW WILLCOX & GIBBS Automatic Tension Silent Sewing Machine is the latest and most marvellous invention in sewing mechanism. It is the only sewing machine that can be used successfully without instruction or experience, and invariably does perfect and durable work. First premium at American and Franklin Institute Fairs, November, 1875. Send for circulars and price list to Willcox & Gibbs Sewing Machine Co., E. B. Cutler, Gen. Agent, 111 Post street, S. F.

AMERICAN MANURES, OR FARMERS' AND PLANTERS' GUIDE.—Comprises a description of the elements and composition of plants and soil's; the theory and practice of composting; the value of stable manure and waste products, etc. Also, a chemical analysis of the principal manufactured fertilizers—their assumed and real value—and a full expose of the frauds practised upon purchasers. By Wm. H. Bruckner, Ph. D., Phila. Sold at this office. Price, $1.75; post paid.

THE THRESHERS' GUIDE, by D. W. Hollihan, a practical operator with threshing machinery in California and other States. A book of useful and friendly hints to the grain growers, machine owners and threshing superintendents and workmen. Published at the RURAL PRESS office, in 1872. Price, $1; in limp cloth binding, 75 cents; postage paid.

NOW'S THE TIME.—Everybody interested in mining and agriculture should subscribe for the Centennial year for either the RURAL or the SCIENTIFIC PRESS, published by Dewey & Co., San Francisco. They are the best journals of the kind in this country, and deserve the support of all those whose cause they espouse. Everything of interest connected with the Centennial, appropriate for these papers, will be collated. Send in your names.—*Mountain Messenger.*

REAPER AND BINDER.—Cornelius Mohr, of Mt. Eden, is using Lock's self binder in his grain field. It cuts from 10 to 14 acres of grain per day, and binds all the bundles with wire, as fast as cut, and deposits them along side of the reaper as it moves forward. It sweeps everything clean, and needs no rake to follow its course. Mr. Mohr is cutting 700 or 800 acres, and is highly pleased with the way it works. Frank Bros. & Co., of S. F., are agents for this machine.—*Washington Independent.*

THOUGHTLESSNESS.—Persons sometimes return their paper, marked "stop this paper." Their name being pasted on the sheet they think that is all we need to be able to cross their names off. Now that is thoughtlessness. Your P. O. address is needed as much as your name. We have thousands of names arranged only according to locality. Our mailing clerk does not know where everybody lives.

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

GOOD PRINTING INK.—We prefer Chas. Eneu Johnson's printing inks, having used them on this paper for the past four years. H. S. Crocker & Co., printers, stationers, blank book and paper dealers, are Johnson's S. F. agents.—DEWEY & Co., Publishers.

BE MORE PARTICULAR.—We can only make the changes requested by the following parties on our mail list, when they, or some one else, send us their P. O. address. Otherwise we would have to look over from 7,000 to 10,000 names. Frank Becker, O. Seawell, L. Boyer, M. Levis, F. Anson, and Antonia Byros.

We also want the address of Wm. Buck.

At our request, Cragin & Co., of Philadelphia, Pa., have promised to send any of our readers gratis, (on receipt of 15 cents to pay postage,) a sample of Dobbins' Electric Soap, to try. Send at once.

A SOUTHERN HOME FOR SALE.—See advertisement of Lee H. Utt, whose fine place in San Diego county, is for sale.

MENZO SPRING,

Manufacturer of

Dr. Bly's Patent Artificial Limbs.

OFFICE AND ADDRESS,

No. 166 TEHAMA STREET,

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eowbp

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Wednesday, August 2d, 1876.

One of the most important items of this week's trade has been a gradual and continuous improvement in the Wheat quotation from Liverpool. This advance, as will appear by the weekly table below, commenced on Average California, and to-day, Wednesday, the rates for Club are pushed forward. The result, so far, in the local market is a firmer feeling among holders of Wheat.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	Cal. Average.			Club.		
Thursday	9s	1d@	9s 4d	9s	4d@	9s 10d
Friday	9s	2d@	9s 4d	9s	6d@10s	—
Saturday	9s	2d@	9s 4d	9s	6d@10s	—
Monday	9s	6d@	9s 8d	9s	8d@10s	—
Tuesday	9s	6d@	9s 9d	9s	8d@10s	2d
Wednesday	9s	6d@	9s 9d	9s	8d@10s	2d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	11s 2d@11s 4d	11s 6d@12s 3d
1875	10s 8d@11e —	10s 10d@11s 6d
1876	9s 6d@ 9s 9d	9s 8d@10s 2d

The Foreign Review.

The telegraphed review of the *Mark Lane Express* under date of July 31st, is as follows:

"The crop prospects, both at home and abroad, are satisfactory. Wheat cutting will be general during the second week in August. Cereale in Scotland and Ireland are maturing almost too rapidly. The present state of trade, no doubt, is discouraging. Should adverse weather prevail during harvest, there will be a considerable alteration of opinion concerning the future course of prices. The feeling at Liverpool and London after the recent rains is sufficient proof of this. The local Wheat market has shown more activity during the week, under a further decline of a shilling per quarter, tempting millers to operate somewhat less sparingly. Flour has been so inanimate lately that many millers are working short houre. Oats have declined, under heavy supplies. Indian Corn seems proof against any decline, the enormous consumption absorbing the steady supply. Cargoes off the coast having dwindled, holders have shown more firmness; in some cases, a slight recovery occurred."

Freights and Charters.

The latest announced charter is the iron ship *Dryad*, by the Grangers, at £2 17s 6d. The *Post* says: The receipts at tide water are light and the outlook causes uneasiness to ship charterers. The balance of the July fleet will probably get away within their lay days, and without much demurrage, provision having been made for their cargoes. We are informed that the head and front of the ship and grain combination has about 15,000 tons of Wheat wherewith to load his vessels in the month of August. This is not sufficient, and unless further supplies are obtained some very heavy demurrage claims will be forthcoming. No one regrets this unfortunate state of affairs more than we do. It is a stumbling block to our commerce and causes embarrassment both at home and abroad. But if men will form themselves into rings and pools for the purpose of monopolizing certain brauches of trade, they must expect opposition from some quarter. That opposition comes at the present from the producers, and having the Wheat in their own hands they are prepared to make a formidable resistance. One thing is certain, the result of the struggle now going on will determine whether Wheat and ship monopoly in California is to be a thing of the past. We have in port at this writing 46,021 tons of tonnage engaged for Wheat, and 26,602 tons disengaged tounage. The amount of tonnage on the way to this port to-day foots up 291,617 tons. The engagements of the week have been as follows: Ship *Santa Clara*, 1,535 tons, Wheat to Liverpool, prior to arrival, private; Br ship *G. C. Trufont*, 1,502, Wheat to Liverpool, prior to arrival, £3 2s 6d; Br ship *City of Athens*, 1,199, Wheat to Cork for orders, prior to arrival, private; bark *Wallace*, 638, Wheat to Cork, U. K., £3 2s 6d.

The July Trade in Wheat.

The first month of the harvest year has closed. The Wheat export movement in the month of July was the largest since Jauuary 1st, exceeding the exporte in July, 1875, by 323,166 ctls. The total export for July, 1876, is 604,220 ctls, valued at $960,360, and the total since January 1st, 2,548,144 ctls, valued at $4,657,064.

The Western Crops.

Various reports are at hand of the crops iu the Western States. We print them as follows:

CHICAGO, July 30th.—Reports from all points in this section of the country where large crops of Spring Wheat are raised are conflicting. The grasshoppers are said to be numerous and destructive in some sections, but they appear to have worked iu narrow belts of land and to have confined themselves chiefly to the Corn and Oat crops, and to have deposited fewer eggs than usual. The indications now are that the Wheat crop in the above section will be good, if not a full average. There remains much to be harvested, however, and rains or ruet may shorten the crop. One thing seems certain, that the quality of this year's crop will be much better than usual.

TOLEDO, July 28th.—The *Blade's* crop reports from 173 points in Illinois, Ohio and Michigan, show that Wheat is nearly up to the average in quantity and superior in quality to any former year.

COUNCIL BLUFFS, (Ia). July 31st.—The recent wet weather has retarded harvesting and damaged crops to a considerable extent. Oats will be almost a total failure, owing to the rust. Barley, fair average crop, and Wheat from half to two-thirds. Corn and Potatoes never promised better. In many Wheat fields in the vicinity of Duhuque, Iowa, the reaper was put to work and abandoned, the grain not being worth harvesting. The farmers must rely on their old crops or buy grain for bread. Not one in ten will raise enough for family use. This condition of the crop extends throughout Duhuque, Delaware and Jackson counties, and is the worst failure known in seveal years. The floods, chinchbugs and Hessian flies have done their work completely.

ST. PAUL, MINN., July 28th.—Terrible devastations hy grasshoppers have been progressing in the western borders of this State; but though many farmers have lost everything, the loss is not as yet widespread. The *Pioneer Press* says: The greater part of the region west of and including Jackson county, to Eastern Dakota, and south through Northwestern Iowa, is covered with the devouring hosts, and our reports indicate that the entire crop of that region is being swept, and that many of the discouraged settlers are temporarily leaving.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week July 12	Week July 19	Week July 26.	Week Aug. 2.
Flour, quarter sacks	71,776	26,202	30,811	34,412
Wheat, centals	110,567	243,447	227,663	269,425
Barley, centals	22,743	32,267	27,767	64,965
Beans, sacks	2,136	1,150	1,093	415
Corn, centals	1,040	3 406	1,482	2,342
Oats, centals	5,740	2,706	3,945	3,103
Potatoes, sacks	11,429	17,357	16,248	13,496
Onions, sacks	846	770	1,182	1,086
Wool, bales	2,919	2,312	2,468	2,059
Hops, bales	117	93	4	1
Hay, bales	1,779	2,545	2,226	2,983

Bags—Wheat Bags are quotable again a shade lower The receipts during the last 10 days have aggregated about 2,500,000, and the advantage seems to be on the side of the buyer. The quotation now for standard Wheat is 12½@12¾c.

Barley—The exports of Barley duriug the past month were 24,010 ctls, valued at $22,008. The receipts are quite heavy, but the price is firm with perhaps a chance to realize a little better figures than a week ago. We note the following sales during the week: 1,600 sks good for export, $1, gold; 300 do do, $1 07½, silver; 500 do fair, 97½c, half silver; 900 do choice old Brewing $1.25 per ctl, gold; 425 sks Bay Feed, $1.10 per ctl, all silver; 1,600 sks good new, $1 per ctl; 425 do do, $1.10, silver; 125 sks choice Feed, $1.10, silver; 700 sks Coast Feed, $1, half silver; 500 sks choice Feed, $1.07½, silver; 1,000 sks good Feed, $1, half silver; 1,500 sks Coast Feed, $1; 330 do do, $1.02½; 500 do Bay do, $1 07½, all half silver; 250 do Coast do, $1.05 per ctl, silver; 500 do old Brewing, $1.27½; 222 do do, $1.30 per ctl, both half silver.

Beans—Beans are still a dead article and quotations are nomiual.

Corn—Corn is quotable at an advance. We note salee: 80 sks small Yellow, at $1.30 per ctl; half silver; 400 sks large Yellow, $1.25; 200 sks do do, $1.25. Small Round is quotable at $1.35 per ctl.

Dairy Produce—Roll Butter is firm at quotations, with some dairies held at 35c. Some dairies of firkin Butter are held at 30c. Pickled roll has sold at 30@32½, the latter being Point Reyes. Eastern Cheese is now in the market. Prices for Cheese are unchauged.

Eggs—Eggs are rather weak at quotations.

Feed.—Bran and Oil Cake Meal are cheaper, while Corn Meal has advanced. Hay is stationary at the former range of prices. We note a sale of 50 tons Stockton hran from the wharf at $15. Hay eales are as follows: 17 tons poor Barley, $8; 41 good Volunteer Wheat and Oat at $11.50; 53 good Wheat, $12.50; 26 tons choice Wheat at $13; 25 do Wheat aud Oat, $9; 40 tons poor Wild Oat, $8 50; good Wild Oat brought $12 and choice Wheat, $13; 38 tone fair Wheat and Oat, $10; 32 do do, Wild Oat and Wheat, $1.50; 40 do good Wheat and Oat, $12.75.

Fruit.—The period of greatest abundauce during the Peach season has now arrived. The supply has been very heavy this week. Choice Early Crawford can now be purchased by the single basket at 60@75c. Other varieties are a little cheaper. Plums are very plentiful and cheap. Cherries and Currante are about out of market. Apples by the single box are selling at 75c@$1.50, aud Pears at $1@1 50 for common, and $2.50; for Bartlett.

Fish.—Fish are plenty aod prices low.

Hops.—There ie no local change. Emmet Wells reports the New York market for the eek ending July 24th as follows:

There is very little to say concerniug trade; in fact there has been no business of any account doing. The shipping demand has dropped off altogether, and only a few hales have gone out to hrewers. Quotations nominal and prices unchanged. Home crop reports are less favorable. The hot weather is beginning to have a bad effect upon the vine in some of the important districts. We have complaints of lice, thin vine and slow arming out; the tendeucy being toward a "top crop," a crop in which the fruit clusters near the tops of the poles; the quality of a top crop is usually fine, though in quantity considerably less than when there is a profueion of arms to the vines. Foreign crop advices are still unfavorable. It is reported that contracts have been made, up in this State for the uew crop at 20 cents. We would adviee growere not to contract at any price.

Oats—Oats are unchanged. The supply seems to be adequate. We noto sales of 250 sks Feed at $1.40. 200 sks choice Old at $1 75; 1,000 do choice New, $1.75; half silver.

Onions—Onions are cheaper generally, as appears, in our tables. We note sales of 80 sks good Yellow at 75c.

Potatoes—The market is heavy and slow. Prices are given helow.

Provisions—The Trade in Fresh Meat is rather quiet. Cured Meats are in Fair demand.

Poultry—The Poultry market shows a few fluctuations, but the market is quiet.

Rye—Rye is much cheaper. We note sales of 270 sks good at $1.55, eilver; 400 sks at $1.37½, eilver.

Vegetables—Prices are generally lower where auy change has occurred. Rates for each article appear in our tables.

Wheat—Except a firmer feeling amoug holders, there is little change to note in the Wheat market. During the week there have been sales of several parcels as follows: 5,000 to 6,000 tons of New at $1.50@$1.52½ per ctl. Sales of 12,000 ctls old Milling at $1 65; 2,030 do now do, $1.55; 3,000 ctls choice old Milling, $1 65; 1,600 do new do, $1.55; 788 do good do, $1.52½; 125 do Sonora, $1.47½; 190 do Superfine, $1.40, the latter half silver; 2,000 sks choice new Milling, $1 55; 3,000 sks choice old Milling, $1.65; 1,600 do new do, $1.55; 400 do do, $1.52½; 150 do Coast, $1.40.

Wool—There is no change to note in our quotations. There have been sales of extra Northern at 21c, but the usual rate is 18@20. We note a sale of 15,000 lbs slightly burry Wool at 13c. The fall clip is beginning in the lower country. The Eisteru markets are telegraphed as follows:

NEW YORK, July 31st.—The Wool market has shown considerable activily during this week, notwithstanding the unsatisfactory results of the several auction sales of blankets, flannels, etc. Spring California has met with favor, being in better supply and relatively cheaper than other descriptions. Texas has also sold well, owiug to the moderate views of holders. Fleeces continue dull, owing to the poor assortment that is in stock; Boston and Philadelphia have taken the bulk of the Western clip this year. Foreign Woole are quiet but prices are firm. The sales of the week are 347,000 lbs spring California at 16@18½c for burry, and 19@25c for free; 15,000 lbe Western Texae, 14@20c; 16,000 lbs Eastern do, 20@23c; 7,000 lbe domestic naile, 29c; 40,000 lbs Nevada, about 18c; 20,000 lbs X and XX Ohio fleece, 35c; 15,000 lbe mixed do, 24@30c; 6,000 lbs Ohio combing, 41c; 7,000 lbe State, 34@40c, and 129 bales Donskoi, 50 do Syron 46 do Cape for export to Canada. 5,000 lbs Colorado, 5,400 lbs Eastern Texas, 56 bags lambs' pulled, 16 do No. 1 do, 24 do euper do, 3 do short extra do, and 29,000 lbs X and XX on terms not made public.

BOSTON, July 29th.—There has been quite au active feeling in Wools during the past week sales including nearly 200,000 lbs. Fine fleeces have been most sought after. Sales of Ohio and Pennsylvania lots indicate an improvement from 10 to 12c. Sales of California have been the smallest for two months, manufacturers having turned their attention more particularly to domestic; but there is still considerable inquiry. Prices remain the same. Sales include some very good and burry lots; also 406 000 lbs spring at 14¼@27c, and 38,000 lbs fall at 12@16c.

PHILADELPHIA, July 28th.—Wool is active and firmer. The supply is light but equal to the demand. All gradee sell on arrival at quotations. Prices are firm but no higher. Colorado washed, 18@25c; unwashed, 14@16c; extra and merino pulled, 25@30c; No. 1 and euper pulls, 25@30c; Texas fine and medium, 14@20c; coaree, 14@10c; California fine and medium, 18@22c; coarse, 14@18c.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., Aug. 2, 1876.

BEANS.

Bayo, ₰ ctl	4 50	@	5 00
Butter	1 9	@	2 25
Pea	1 92½	@	—
Pink	2 50	@	3 00
Sm'l white	1 60	@	1 90
Lima	1 90	@	2 00

BROOM CORN.

Common, ₰ lb	2	@	3
Choice, do	4	@	5

COTTON.

Cotton, ₰ lb	15	@	18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	27½	@	32½
Point Reyes	35	@	—
Pickle Roll	30	@	32½
Firkin	25	@	27½
W'st'n Reeerve	16	@	20
New York	—	@	—

CHEESE.

Cheese, Cal., lb	10	@	15
do Old	—	@	—
Eastern	12½	@	15

EGGS.

Cal. fresh ₰ doz	37½	@	40
Ducks'	—	@	35
Oregon	32	@	35
Eastern	21	@	—

FEED.

Bran, per ton	15 00	@	16 00
Corn Meal	28 00	@	29 00
Hay	7 00	@	13 00
Middlings	24 00	@	—
Oil cake meal	—	@	35 00
Straw, ₰ bale	55	@	60

FLOUR.

Extra ₰ bbl	5 50	@	6 00
Superfine	4 50	@	4 75
Graham, ₰ bbl	5 50	@	—

FRESH MEAT.

Beef 1st quality lb	6	@	8
Second do	5	@	5½
Third do	3½	@	4
Spring Lamb	5½	@	6
Mutton	4	@	4½
Pork, undressed	7	@	7½
do, dressed	—	@	10¼
Veal	6	@	6½
Milk Calves	5½	@	7

GRAIN, ETC.

Barley, feed ctl	95	@	1 05
do brewing	1 20	@	1 25
Chevalier	1 25	@	1 35
Corn, White	1 25	@	1 30
do Yellow	1 25	@	1 30
Oats	1 25	@	1 60
Milling	—	@	1 75
Rye	1 40	@	1 55
Wheat shipping	1 50	@	52½
do milling	1 60	@	1 65

HIDES.

Hides, dry	10	@	13
do wet salted	6	@	6½

HONEY, ETC.

Beeswax, per lb	25	@	30
Honey in comb	12½	@	15
do Strained	6	@	8

HOPS.

Old crop	10	@	13

NUTS—Jobbing.

Almonds hd sh'l lb	8	@	10
do, soft sh'l	18	@	20
Brazil do	14	@	16
Cal. Walnuts	12	@	14
Chile Walnuts	11	@	12½
Peanuts per lb	9	@	10
Filberts	15	@	16
Pecanuts	17	@	18

ONIONS.

Union City ctl	—	@	—
Stockton	5	@	62½
New Red	50	@	62½
Silver Skins	50	@	75

POTATOES.

Petaluma, ₰ ctl	—	@	—
Salt Lake	—	@	—
Humboldt	—	@	—
Half Moon Bay	62½	@	80
Early Rose new	65	@	—
Sweet	3	@	—

POULTRY & GAME.

Hens, per dz	8 50	@	9 50
Roosters	5 00	@	7 00
Broilers	3 00	@	4 50
Ducks, tame, dz	4 00	@	6 00
do Mallard	—	@	5 00
do Canvas	—	@	5 00
Geese, per pair	2 00	@	2 25
Wild Gray dz	3 00	@	4 00
White	1 50	@	2 00
Turkeys, Live, lb	15	@	18
do Dressed	20	@	24
Quail, per doz	—	@	—
Snipe, Eng., doz	—	@	—
Doves, per dozen	50	@	57
Rabbits	1 00	@	1 00
Hare, per doz	1 50	@	2 00

PROVISIONS.

Cal. Bacon, L'd, lb	16	@	17
do Medium	15½	@	16
do Heavy	—	@	15½
Lard	14	@	16½
Cal. Smoked Beef	10	@	12½
Eastern do	—	@	10
East'n Should's	—	@	10
Hams, Cal	14	@	14½
do Armour	14½	@	15
do Worster's	17	@	17½
do Dupee's	16	@	16½
do Davis Bros'	17	@	17½

SEEDS.

Alfalfa, Chile lb	8	@	10
do California	11	@	12
Canary	10	@	12
Clover Red	—	@	22
do White	50	@	55
Cotton	8	@	10
Flaxseed	—	@	3¼
Hemp	12½	@	—
Italian Rye Grass	25	@	30
Perennial do	20	@	30
Millet	10	@	12
Mustard, white	3	@	3½
do. Brown	3	@	3½
Rape	7	@	9
Ky. Blue Grass	30	@	—
do 2d quality	29	@	—
Sweet V Grass	—	@	75
Orchard do	30	@	35
Red Top do	—	@	25
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	20	@	25
Timothy	—	@	13

TALLOW.

Crude, ₰ lb	6½	@	—
Refined	8½	@	9

WOOL, ETC.

SPRING—

Seedy, ₰ lb	9	@	12½
Choice long free	17	@	18
do Northern	19	@	21
do short	13	@	16½
Burry	10	@	14
Oregon	14	@	18

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M.,, Aug. 2, 1876.

FRUIT MARKET.

Oranges Mex. ₰ M	—	@	—
Tahiti, do	25 00	@	30 00
Cal. do	—	@	—
Limes, Mexican. ₰ M	20 00	@	25 00
Malaga Lemons, ₰ hx	—	@	—
Cal. ₰ 100	2 00	@	2 50
do Sicily ₰ b'x	12 00	@	—
Bananas, ₰ bnch	1 50	@	2 50
Cocoanuts, ₰ 100	7 00	@	8 00
Pineapples, ₰ dz	—	@	—
Apples, ₰ box	50	@	1 25
do Choice	—	@	1 25
Apricots, lb	1½	@	2½
Blackberries	4	@	5
Cherries, ₰ lb	18	@	20
Plums, lb	1	@	2
Figs	6	@	8
Gooseberries	5	@	—
Huckleberries	—	@	—
Strawberr's ₰ case	5 00	@	7 00
Pomgranates	—	@	—
Raspberries	12½	@	20
Currants, ₰ case	1 00	@	2 50
Cranberries ₰ bbl	13 00	@	14 00
Peaches, ₰ box	30	@	80
Crawford	40	@	80
Pears, ₰ bx	75	@	1 25
do Choice	1 50	@	2 00
Crab apples, ₰ lb	2	@	—
Grape ₰ lb	2	@	3
Rose of Peru	3	@	5
Muscat	8	@	15

DRIED FRUIT.

Apples, ₰ lb	9	@	12½
Pears, ₰ lb	8	@	13
Peaches, ₰ lb	12	@	12½
Apricots, ₰ lb	14	@	15
Plums, ₰ lb	5	@	6
Pitted do ₰ lb	17	@	22
Raisins, imported	3 25	@	3 75
Cal. Raisins	5	@	10
Black Figs, ₰ lb	5	@	10
White, do	12½	@	15
Prunes	12½	@	17
Citron	28	@	30
Zante Currants	9	@	10

VEGETABLES.

Asparagus ₰ box	2 50	@	3 00
Beets ₰ ctl	—	@	75
Cabbage, ₰ 100 lbs	50	@	62½
Carrots, ₰ 100 lbs	50	@	62½
Cauliflower, doz	50	@	62½
Celery, doz	50	@	—
Garlic, ₰ lb	2	@	2½
Green Peas ₰ lb	—	@	3
Green Corn ₰ doz	7	@	18
Sum'r Squash ₰ box	25	@	—
Marrofat Squash	2 00	@	—
Artic'kes, ₰ doz	—	@	—
String Beans, ₰ lb	1	@	—
Lima Beans	—	@	10
Parsnips	—	@	—
Shell Beans	3	@	3½
Peppers, green, bx	75	@	1 00
Okra	5	@	6
Cucumbers ₰ box	25	@	50
Tomatoes, hox	—	@	1 00
Egg Plant, box	—	@	60
Rhubarb ₰ lb	1	@	1½
Lettuce, doz	12½	@	—
Turnips, per ctl	50	@	62½
Water melons doz	1 00	@	1 50
Cantoloupes do	25	@	1 75

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by SUTRO & CO.]

SAN FRANCISCO, Aug. 2, 3 P. M.

LEGAL TENDERS in S. F., 11 A. M., 89¾ to 90¼. Silver, 5½@ 6¼

GOLD in N. Y. 112.

GOLD BARS, 880 to 890. SILVER BARS, 16@25 per cent discount.

EXCHANGE on N.Y., 50-100 per cent premium for gold; on London bankers, 49; Commercial, 49¼; Paris, five francs per dollar; Mexican dollars, 12 per cent. discount.

LONDON — Consols, 93 to 93⅛; Bonds, 102⅛

QUICKSILVER in S. F., by the flask, per lb, 45c.

GENERAL MERCHANDISE.

[WHOLESALE.]

WEDNESDAY M., Aug. 2, 1876.

BAGS.

Eng. Stand Wht	12½	@	12¾
Neville & Co's			
Hand Sewed	12½	@	12¾
24x36	—	@	—
24x40	—	@	—
Machine do 24x40	—	@	15½
" " 23x40	14½	@	—
" " 22x40	14	@	—
" " 22x36	12½	@	13
Flour Sacks ⅛s	9	@	11
" " ¼s	6	@	7
" " ½s	4½	@	5
Hessian 60-in	12¼	@	14½
do 45-in	10	@	10¼
do 40-in	8½	@	9
Wool Sacks, 3½ lbs	45	@	50
do 4 "	50	@	52½
Stand. Gunnies	12½	@	13½
single seam do	—	@	—
Bean Bags	7	@	8

CANNED GOODS.

Ass't'd Pie Fruits in 2½ lb cans	2 75	@	3 60
do Table do	3 75	@	4 25
Jams & Jellies	4 25	@	—
Pickles ½ gl	—	@	3 50
Sardines, qr box	1 65	@	1 90
do hf boxes	3 00	@	—

COAL—Jobbing.

Australian, ₰ ton	8 75	@	9 00
Coos Bay	—	@	9 00
Bellingham Bay	—	@	9 00
Seattle	—	@	9 00
Cumberl'd	14 00	@	16 00
Mt. Diablo	5 75	@	7 75
Lehigh	—	@	22 00
Liverpool	10 00	@	11 00
West Hartley	—	@	14 00
Scotch	9 00	@	10 00
Scranton	13 00	@	16 00
Vancouver's Isl.	10 50	@	2 00
Charcoal, ₰ sk	75	@	—
Coke, ₰ hbl	—	@	60

COFFEE.

Sandwich Island	—	@	21½
Costa Rica per lb	22½	@	—
Guatemala	—	@	22½
Java	—	@	30
Manilla	—	@	21½
Ground in case	25	@	—
Unicorn	27	@	—

FISH.

Sm. Dry Cod, new	—	@	6½
cases	6	@	7½
do boneless	8½	@	10
Eastern Cod	8	@	8¾
Salmon in bbls	7 25	@	—
do ½ bbls	3 75	@	4 00
do 2lb cans	2 00	@	—
do 1lb cans	1 35	@	—
do Col. R. ½lb	5 00	@	5 50
Pick. Cod, 6bls	22 00	@	—
do ½ bbls	11 00	@	—
Mack'l, No. 1, ½ bbls	11 00	@	—
" Extra	—	@	12 00
" in kits	1 90	@	2 25
" Ex mess	3 50	@	4 00
" Ex mess, ½bs	—	@	12 00
Pio'd Herr'g, bx	3 00	@	3 50
Bos. Sm'k'd Her'g	40	@	50

LIME, ETC.

Lime, St'a Cruz, ₰ bbl	2 00	@	2 25
Cement, Rosendale do	2 75	@	3 50
do Portland do	4 75	@	5 50
Plaster, Golden Gate Mills	3 00	@	3 25
Land Plaster, ₰ ton	10 00	@	2 50

MISCELLANEOUS.

Puiu	—	@	7½

NAILS.

Assorted size, keg	3 75	@	4 00

OILS.

Pacific Glue Co			
Neat F't No. 1	1 00	@	90
Pure	—	@	—
Castor Oil, No. 1	—	@	95
Baker's A A	—	@	1 15
Cocoannt	—	@	60
Olive Plagniol	5 50	@	5 75
do Possel	4 75	@	5 00
Palm lb	9	@	—
Linseed, raw	—	@	62½
do boiled	—	@	65
China nut in cs	65	@	—
Sperm, crude	60	@	1 65
do bleached	1 90	@	2 25
Coast Whales	47½	@	50
Polar, refined	—	@	50
Lard	—	@	1 20
Oleophine	—	@	28
Devoe's Bril't	25	@	27
Long Island	—	@	25
Eureka	26	@	27
Devoe's Petro'm	25	@	27½
Barrel Kerosene	23	@	25
Olive	5	@	50
Downar Kerose'e	—	@	37½
Elaine	38	@	—
Gas Light Oil	23	@	25

PAINTS.

Pure White Lead	9¾	@	10¼
Whiting	—	@	1¾
Putty	4	@	5
Chalk	—	@	1½
Paris White	—	@	2½
Ochre	—	@	3½
Venetian Red	—	@	3¼
Red Lead	10	@	11
Litharge	10	@	11
Eng. Vermillion	—	@	1 25
Averill Chemical Paint, per gal. White & tints	2 00	@	2 40
Green, Blue & Ch Yellow	3 00	@	3 50
Light Red	3 00	@	3 50
Metallic Ronf	1 30	@	1 60

RICE.

China No. 1	5½	@	6
Hawaiian, ₰ lb	7½	@	7¾
Carolina, ₰ lb	10	@	—

SALT.

Cal. Bay, per ton	10 00	@	4 00
do Common	5 00	@	7 00
Carmen Island	12 00	@	15 00
Liverpool fine	22 50	@	25 00

SOAP.

Castile ₰ lb	10	@	11¼
Common brands	4½	@	6
Fancy do	7	@	9

CANDLES.

Grant's	16	@	16½
Mitchell's	18	@	20

SPICES.

Cloves ₰ lb	45	@	47½
Caesia	23½	@	26½
Citron	28	@	30
Nutmeg	95	@	97½
Whole Pepper	14½	@	14½
Pimento	16	@	17½
Gr'nd Allsp'ce	—	@	12
do Cassia	—	@	50
do Cloves	—	@	50
do Mustard	—	@	20
do Ginger	—	@	00
do Pepper	—	@	00
do Mace	—	@	2 00
Bowen's Pure Ground ₰ lb	—	@	50

SUGAR, ETC.

Cal. Cube per lb	—	@	12¾
Circle A crushed	—	@	12
Powdered	—	@	12¾
Fine crushed	—	@	14
Granulated	—	@	11½
Golden C	—	@	10½
Hawaiian	10	@	11
Cal. Syrup in kgs	—	@	62½
Hawaiian Molasses	25	@	27½

TEA.

Oolong, Canton, lb	19	@	25
do Amoy	28	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	40
do Pingsuey	45	@	80
do Moyune	60	@	1 00
Gunpo'der, Cant.	75	@	1 00
do Pingsuey	50	@	90
do Moyune	65	@	1 25
Young Hy., Canton	28	@	40
do Pingsuey	40	@	70
do Moyuno	65	@	85
Japan, ½ chests, bulk	30	@	75
Japan, laoqnered bxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb hxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ cl lb paper	30	@	55

TURPENTINE.

Eastern	51½	@	55

LEATHER.

[WHOLESALE.]

WEDNESDAY M., Aug. 2, 1876.

Sole Leather, heavy ₰ lb	25½	@	29
do do light ₰ lb	20	@	25
Jodot, 8 Kil., per doz	48 00	@	50 00
Jodot, 11 to 13 Kil., per doz	68 00	@	70 00
Jodot 14 to 19 Kil., per doz	82 00	@	84 00
Jodot, second choice, 11 to 16 Kil. ₰ doz

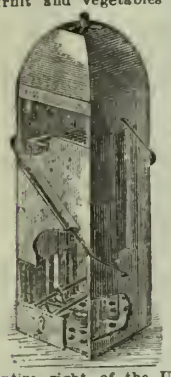
Agricultural Articles.

J. W. CASSIDY'S

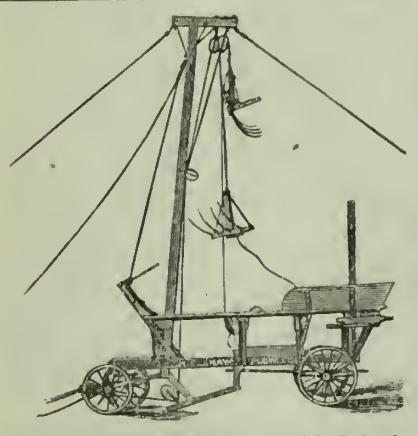
FRUIT DRIER.

A New Invention, although Thoroughly Tested, which Combines all the Improvements.

We warrant a complete success in drying all sorts of trnit and vegetables as thoroughly and more expeditiously than any other Machine, for less amount of fuei by 35 per cent, as we utilize all the waste heat which is lost by all other Machines.



Its simplicity of construction and its cheapness will put it in the hands of all who may want a Drier. We don't pretend to ask from $1,200 to $1,500 profit and royalty. We are willing that producers should make the profit and keep it. The Machine has been tested to our entire satisfaction, and met our most sanguine expectations. The fruit dried by our Drier was fully as good as that dried by any of the renowned Driers. We would say to all who contemplate putting up Machines, that we can make it a decided inducement for all such to give us a call, as we want to sell the entire right of the United States, State, County or Local, at such prices that the poor as well as the rich can use them. The capacity of the Machine will be in proportion to the size, ranging from 100 to 500 feet drying surface. This dryer was more fully illustrated and described in the RURAL PRESS of May 20th, 1876. Communications to T. F. BACHELOR, 622 Clay St., S. F., or to J. W. CASSIDY, Petaluma, Cal., will be thankfully received and promptly attended to.



This cut represents a DERRICK AND FORK, for the purpose of supplying GRAIN IN THE STRAW TO A THRESHING MACHINE. The success of this machine is beyond question. It is a saving of EIGHT OR TEN DOLLARS PER DAY over the hand fork mode. We also make DERRICKS for the purpose of STACKING HAY OR GRAIN, which meet with great favor everywhere. Manufactured by MATTESON & WILLIAMSON, Stockton, Cal.

The Famous "Enterprise"

(PERKIN'S PATENT)

Self-Regulating, Farm Pumping, Railroad and Power

WINDMILLS,

Pumps & Fixtures,



Have been in use in California for five years. Over 500 sold in the towns and farming districts of California. All Mills guaranteed. Send for circulars containing sectional and other illustrations, and further description, to

HORTON & KENNEDY, *Sole Managers Pacific Coast*

General Office and Supplies,

LIVERMORE, ALAMEDA COUNTY, CAL.

Marster's Self Regulating

FEEDER

For Threshing Machines,

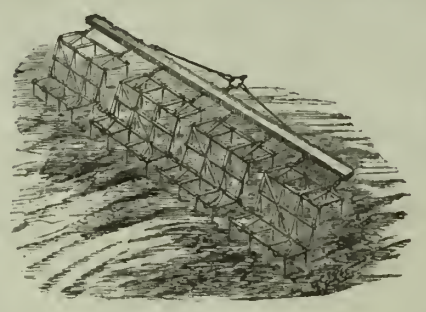
is the only Feeder manufactured that feeds without moving all the straw in a body, consequently gives a more regular feed than it is possible to obtain with a draper feeder; it feeds the whole length of the cylinder; it is easily changed to feed fast or slow as desired; saves the labor of two men and does not require an experienced lableman to feed it. The separator needs no alteration with the exception of the removal of feed board to secure it in position, and does not have to be taken off when moving. It requires but little power to run it, and has no complicated parts liable to get out of order. Its success having been fully demonstrated, I cordially invite all parties interested to call and judge of its merits. For full particulars address

E. J. MARSTERS,
Stockton, Cal.

Works, Corner California and Sonora Streets.

IRON

Sectional Harrow.



This Harrow was Awarded the First Premium at the California State Fair in 1875.

The Undersigned, having Purchased the Patent Right of this Harrow for California, are now Manufacturing them in Roseville, Placer County,

And would call the attention of Farmers to the superior merits of this Harrow over all others now in use.

As its name indicates, it is made in Sections of about three feet in width, each Section having four Bars in which the teeth are inserted, and by connecting the Sections with links, the Harrow is formed.

SHOULD A FARMER REQUIRE A HARROW UPON HIS FARM TO DO ALL KINDS OF WORK, HE SHOULD PURCHASE SIX SECTIONS, WHICH WOULD BE SUITABLE FOR FOUR HORSES, AND WOULD CUT 18 FEET IN WIDTH; BY DISCONNECTING TWO SECTIONS, HE WILL HAVE A TWO OR THREE HORSE HARROW, CUTTING ABOUT 13 FEET. ONE SECTION ALONE IS COMPLETE IN ITSELF, AND SUITABLE FOR GARDEN WORK, WITH ONE HORSE.

The Harrows are Made of the Best Quality of Iron, and with Teeth Warranted to be Steel.

We give a few of the many reasons why we claim superiority for these Harrows over all others in use on this Coast:

First—By the lightness of draft, taking into consideration the amount of work it does.

Second—By working uneven or rolling ground just as well and as evenly as if it was entirely level.

Third—They are made of Iron and Steel, and therefore are not affected at all by sun or rain, or by heat and cold; they are always tight, and ready for use; they are also durable. A farmer purchasing one has a Harrow that will last a life time.

Fourth—The teeth being fastened with a nut and screw into the cross bars, should one break, another can be inserted in a moment. We are making three sizes, all being the same in width, but differing in depth and weight only.

Prices, from $12.50 to $15.00 per Section.

All orders sent to

BREWSTER & CO.,
Roseville, Placer Co.,

Will be promptly attended to, and satisfaction guaranteed in all cases.

CAUTION.

It has come to our notice that certain parties are now making this Harrow in this State, and that several of them have been sent here from the East. Now this is to *caution* all persons against making, selling or buying them, so made and offered for sale, as we shall enforce our rights in relation to the matter, and would call the attention of all persons infringing upon our patent, to the *law* in regard to it.

BREWSTER & CO.,

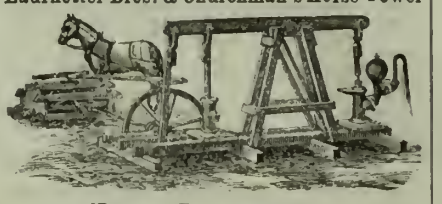
Roseville, July 15th, 1876.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power



[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

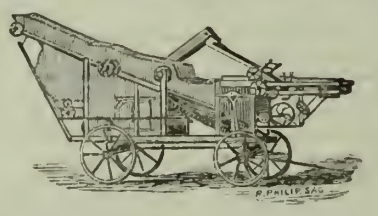
WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,
Cor. J and 10th Sts., Sacramento.

JACKSON'S

PATENT FEEDER & ELEVATOR



For Threshing Machines.

The most successful Automatic Feeder yet invented; it has had the severest tests in all kinds of grain, long, short, wet or weedy, during the past six years. There are over two hundred in use in the Sacramento valley. I will give full guarantee to purchasers. Send for special circular. Address,

BYRON JACKSON,
Patentee & Manufacturer,
Woodland, Yolo County, California.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



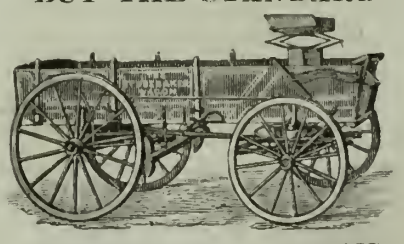
GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

BUY THE STANDARD



STUDEBAKER WAGONS.

We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

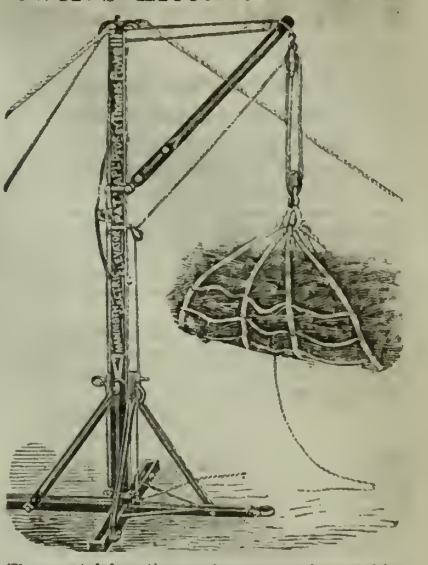
E. F. AMES, Gen. Agent,
Send for Price-List. Sacramento, Cal.

OAKLAND Spring Balance Gang Plow.



Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal. Established in 1858. Send for Circular and Price-list

Powell's Electric Elevator



The great labor, time and money saving machine. This machine is used in the harvest field to elevate grain, hay and straw from the header box to the stack only a few seconds being required to elevate a large four horse load. The load is taken up in a center opening net or sling. Patented April 20th, 1875. For description, circular and price list, address

THOS. POWELL, Patentee, Stockton, Cal.
Or H. C. SHAW PLOW CO., Stockton, Cal.

COHANSEY GLASS TOP

FRUIT JARS.

FRUIT IN CONTACT WITH GLASS ONLY.



Elastic Pressure by Spring Clamps on Shoulder Joint.

The Screw Clamp turns freely on Cover and Inclines, and tightens the Jar quickly and is Easily Tested.

Easily opened and closed, without wrench or tool.

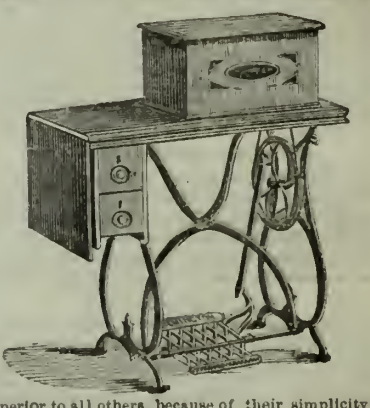
Every Jar being inspected, there is no trouble in using.

The Handsomest and Best Glass Lid Fruit Jar.

COHANSEY GLASS MF'G CO.,
N. W. Cor. Third and Arch Sts., Phil'a.

REDDINGTON & CO.,
Wholesale Agents, - - - San Francisco, Cal.

REMINGTON SEWING MACHINES.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

REMINGTON SEWING MACHINE CO.,
629 Market st., under Palace Hotel, S. F.
AGENTS WANTED FOR CITY AND COUNTRY.

WASHINGTON COLLEGE,

WASHINGTON,
Alameda County, Cal.

THE NEXT TERM OF THIS INSTITUTION WILL COMMENCE ON THURSDAY,

JULY 27th, 1876.

Full Corps of Able and Experienced Instructors.

For Catalogues, address as above.

S. S. HARMON, Principal.

50 **Visiting Cards**, with your name finely printed, sent for 25c. We have **100** styles. **Agents Wanted.** 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

BEFORE PAINTING YOUR HOUSES

Send for Sample Card and Circular and Carefully Examine the

AVERILL CHEMICAL PAINT,

MIXED READY FOR USE.

This Paint is prepared in liquid form, READY FOR THE BRUSH. It requires no addition of oil or spirits. It is composed of the best materials known to the trade—Pure Linseed Oil, Strictly Pure White Lead, Pure Zinc, and the finest of coloring matter for tinting. It is the BEST, CHEAPEST, MOST DURABLE AND BEAUTIFUL PAINT IN THE WORLD. Is just what is wanted by every farmer, mechanic and everybody who has a house, fence, barn, or wagon to paint. Requires no skilled labor, as any one can apply it who can handle a brush. It is put up in cans of any required size, from a quart to five gallons, and is SOLD BY THE GALLON. It gives a firm, elastic and brilliant glossy finish, and will neither crack, peel or wash off, like most paint in common use, but is proof against rainstorms and all action of the elements. Buildings painted with this paint five years ago look fresh and like new to-day and will need no more paint for years. Of no other paint can this be said and proved.



The Averill Chemical Paint Company supply a long-felt want. They not only furnish a Paint more lasting, handsomer, and at the same time cheaper than the best of others, but it is in a liquid form—white and all the fashionable and most exquisite shades—ready for the brush. So that farmers, in fact everybody, can be their own painter if necessary. Indeed, all the buildings upon which the Averill Chemical Paint has been applied, are marvels of beauty.—*Christian Union.*

We know of no subject of such importance to householders as that of a good, handsome, durable paint for their dwellings. Within the past few years we have watched the progress of the Averill Chemical Paint and have had frequent opportunities to test it fully. We think it just the article to supply the need, and give it our hearty endorsement.—*N. Y. Independent.*

From the Thousands of Testimonials sent us, we select the following, which we present for your careful consideration:

A PAINT FOR FARMERS.—Prof. J. B. Turner, Jacksonville, Ill., is a man of great practical knowledge and experience; hence, we attach a great deal of value to the following, from his pen, which we find in the *Prairie Farmer:*

"Some two years ago I sent for and got from a barrel to a barrel and a half of Averill Chemical Paint, of light dun color, which I thought would suit me well enough for all work—houses, doors, blinds, fences, bee-hives, wagons, tools and all. I put two coats upon my residence here, and run over three or four of my smaller farm houses on my farms. With what was left I painted my bee-hives, wagons, wheelbarrows, rollers, harrows, fences, etc., etc. and on all these buildings, implements, tools, gates, etc., the paint is as hard and glossy to-day, so far as I can see, as it was a month after it was put on, and bids fair to hold its own at least for five years to come, (if not ten of them,) better than ordinary white lead and oil does for even two years.

"I have watched it now for about two years with interest and care, and have never found a single spot where it peeled, cracked, or chalked off, as our other paints do. Others who have used this paint like it equally as well. But the point is, I can take one and the same keg and brush, and go over all my buildings, wagons and tools, with no needless waste of paint, brushes or time. It is quite as good for inside finish, as it leaves a coat that shines and washes like glass."—*Moore's Rural New Yorker.*

THE AVERILL PAINTS.—In reply to some inquiries of our readers, we would state that we have given these paints, prepared by the Averill Chemical Paint Company, a full trial, and they appear to possess all that is claimed for them; spreading easily, adhering well, drying soon, and imparting handsome shades of color to the surface covered. Farmers and others who do their own painting, may avail themselves of the convenience of purchasing these paints, of any desired shade, already mixed for use, at a very reasonable price.—*Cultivator and Country Gentleman.*

PLACERVILLE, October 7, 1875.

TO THE CALIFORNIA CHEMICAL PAINT CO: Gentlemen—In reply to your letter I have to state that for more than six years I have dealt in and used your paint. I have during that time carefully observed its application and use, and from practical knowledge can certify to its unrivalled excellence. During my six years' acquaintance with it, there has not come to my knowledge a single instance of failure in any case where it has been used. All to whom I have supplied it unite in commending it for its superior claims over all other paints now in use. The Averill Paint externally used, or, in other words, exposed to the action of the weather, neither rubs off nor changes color, as do other paints, and will retain its freshness and adhesive property for years. Pure lead and oil will in a short time become dry, and are easily rubbed off: the loss of oil leaves the lead in a dry, oxidized state. As a matter of economy the claims of the Averill Chemical Paint to popular appreciation and general use are beyond question. A house properly painted with it once will be better preserved, and present a neater appearance at the expiration of seven years, than it would if twice coated with lead and oil paints now in use. There can be no question, then, that to use it is both labor-saving and economical. So well assured and convinced am I of its established right to this distinction over all kinds, that had I fifty houses of my own to be painted, the "Averill" alone should be my choice and used.

Yours, very truly, S. J. ALDEN, Druggist.

UNIVERSITY OF CALIFORNIA, BERKELEY, August 16, 1875.

TO THE CALIFORNIA CHEMICAL PAINT CO: Gentlemen—In reply to your note of the 13th inst, I willingly state that the work done by you in painting the exterior of the North Hall or College of Letters is in every way satisfactory, and the appearance of the building since it was painted excites the favorable comment of all who have seen it. As I have had occasion to use the Averill Paint before, my experience has been such that I prefer it to any and all others when properly applied. I am very truly yours, ROBT. E. C. STEARNS.

Sample Card of Colors Sent Free on Application. Be Sure and Write for One and Examine for Yourself before Buying Any Other.

CALIFORNIA CHEMICAL PAINT CO.

117 PINE STREET, SAN FRANCISCO.

LEA & PERRINS'
CELEBRATED
WORCESTERSHIRE SAUCE,
DECLARED BY CONNOISSEURS TO BE
THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of
Lea & Perrins' Sauce,
which are calculated to deceive the Public,
LEA & PERRINS have adopted
A New Label,
bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of
Worcestershire Sauce,
after this date, and without which none is genuine.
November 1874.
*** *This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.
Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco.

NEVILLE & CO'S FACTORY

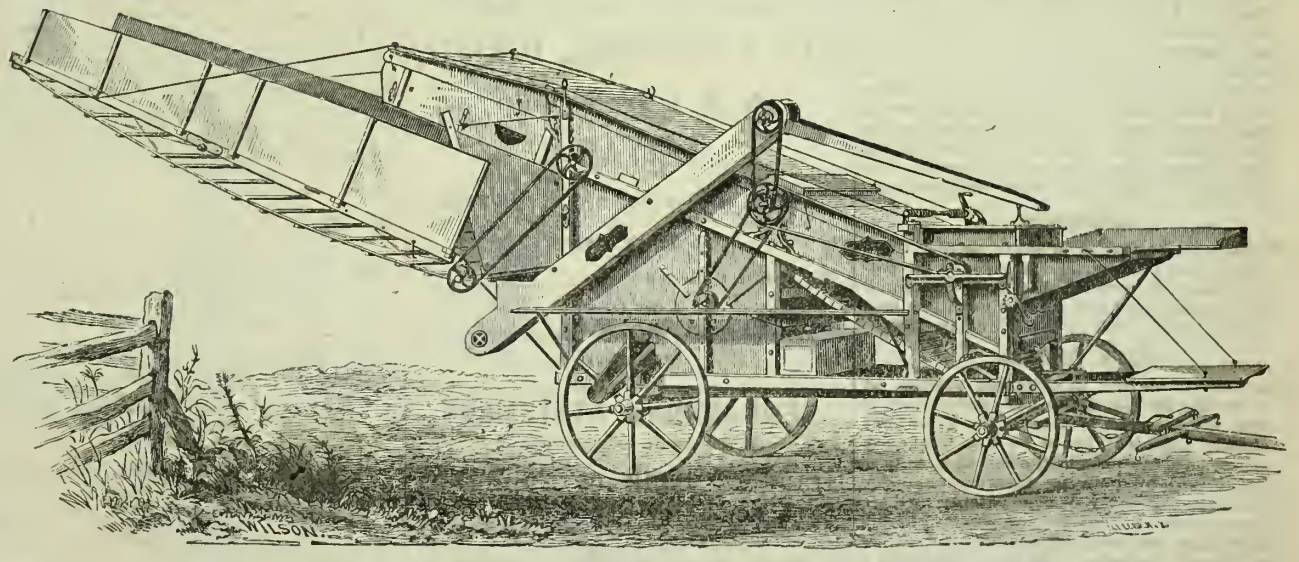
113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

Davis & Sutton, Commission Merchants,
For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

SWEEPSTAKES THRESHER,



With all the Latest Improvements for the Pacific Coast, Manufactured or
FRANK BROS. & CO.

We will warrant every Machine sold to do Better, Cleaner and Faster Work than any other Thresher on the Coast.

All who are in want of Threshers should not fail to call and see the improvements that have been put on the Sweepstakes for the Harvest of 1876. We also have the Cary Power, to which we would call special attention.

FRANK BROS. & CO.,

349 MARKET STREET.. - - - - - - - - - - SAN FRANCISCO.

H. H. H.

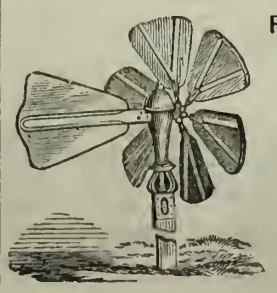
HORSE MEDICINE.

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,
Stockton, Cal.

AUTOMATIC PUMP.



Raises water by compressed air to any hight or distance. Windmill can be set at any distance from the well or spring if required to get a good exposure to the wind.

SEND FOR CIRCULAR.

J. E. HOLLOWAY, Gen. Agent for Pacific States,

31 Beale Street, San Francisco,

WHERE THE PUMP CAN BE SEEN IN OPERATION.

DEWEY & CO.

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San Francisco, 1875.

Fairs in 1876.

The Centennial (World's Fair), Philadelphia, Pa., from May 10th to continue till autumn.

Mechanics' Institute Industrial Fair, S. F., beginning August 8th.

California State Fair, Sacramento, from Sept. 18th to Sept. 23d.

The Southern District Agricultural Society, Los Angeles, from Oct. 5th to Oct. 14th.

Nevada State Fair, Reno, Nev., from Sept. 11th to Sept. 16th.

Sonoma and Marin District Fair, Petaluma, from Oct. 9th to Oct. 16th.

Oregon State Fair, Salem, from Oct. 9th to Oct. 16th.

Northern District Fair, Marysville, from Oct. 9th to Oct. 16th.

San Joaquin Valley Agricultural Fair at Stockton, beginning Sept. 26th.

Contra Costa County Fair, Pacheco, from Sept. 25th to Sept. 29th.

Much Obliged, Etc.

PORTLAND, OGN., June 26th, 1876.

DEWEY & Co, Patent Solicitors, S. F.—*Gents:* I am much obliged to you for courtesy shown me, and am well pleased with the manner in which you have done my business, and assure you, will cheerfully recommend you to my acquaintances needing such services. Hope to have a case again before long, of my own. I have been an inventor all my life, but let others reap the benefit, or had work stolen from me. Please have the extra copies of my patent, etc., mailed to me direct, and oblige Yours truly, J. H. WOODNUM.

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SEMI-ANNUAL STATEMENT

OF THE ACTUAL CONDITION OF THE

Grangers' Bank of California.

JULY, 1876.

In accordance with the Act of the Legislature of the State of California, approved April 1st, 1876, chapter 487, entitled, "an Act concerning corporations and persons engaged in the business of banking."

We, the undersigned, C. J. Cressey, Manager, and A. Montpollier, Cashier, of the Grangers' Bank of California, a corporation duly organized under the laws of the State of California, engaged in the business of banking, at the City and County of San Francisco, do hereby make the following statement of the actual value of the Assets and Liabilities of the said corporation at the close of business on the 22d day of July, A. D., 1876, to wit:

Capital.

Amount Actually Paid in, U. S. Gold Coin	$210,240 00

Assets.

Loans and Discounts	$701 170 28
Overdrafts due by depositors on securities	72,004 46
Real Estate, (bank interest in Grangers' bdg)	20 000 00
Office Furniture and Fixtures	836 15
Cash on hand	54,211 00
	$848,222 89

Liabilities.

Capital Stock	$660 180 00
Deposits (balance due to depositors)	72 040 70
Certificates of Deposit	112,772 69
Balance dividend unpaid	3,229 50
	$848 222 89

A. MONTPELLIER, Cashier.

State of California, City and County of San Francisco:—Albert Montpellier being duly sworn deposes and says that he is the Cashier of the Grangers' Bank of California above mentioned, and that the foregoing statement is true to the best of his knowledge and belief.

A. MONTPELLIER.

Subscribed and sworn to before me, this, the 26th day of July, A. D., 1876. JAMES L. KING,
Notary Public.

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The owner will warrant the Cavendish Dwarf Banana to grow as well here as in Florida. He has three now growing. The pasture now enclosed will keep 50 head of cattle. The ditch—which is large enough to run a mill—is stocked with trout, and has a fish pond 100 feet square, and full of fish. There is a nice warm spring, with bath house; the water contains sulphur, salts and iron.

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Maps can be seen and particulars obtained from

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References.—The following are a few of the many persons using the HOWELL BRAKE,—any one of whom can be consulted: C. S. Davidson, Jacob Loncor, G. C. Truex, A. Valentine, John Beatty, Samuel Vansickle, Sylvanus Lawrence, Crispin & Williams, Wm. H. Hart, Joseph Ayres, John H. Ayres, Charles B. Drake, Steward Wells, Michael Youngs, Wm. Pinkney, Peter Haines, Marshall Ackerson, Jonathan P. Maines, Robert T. Johnson, Overton Hemiuover,—all of Andover, N. J.

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More than double the number of Farmers and their families read the PACIFIC RURAL PRESS than any other journal on this Coast.

Dewey & Co. {224 Sansome St.} Patent Agt's.

PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, AUGUST 12, 1876. [Number 7

From Field To Table in Eleven Minutes.

The oitizens of Carrollton, Mo., have been employed in ascertaining in how short a time wheat can be taken from the field and put down in bread on the table. The *Miller's Journal* prints a letter signed hy the judges, county officials, editors and other citizens of Carrollton asserting the truth of the following experiment which they watched with watches in hand. The statement is as follows: "The nndersigned citizens of Carrollton and vicinity certify that at a trial made this day for the purpose of ascertaining the time in which bread could be made from wheat taken in the field standing, the following time was made by J. F. Lawton, proprietor of the mill: Commenced cntting with reaper at 3:01 P. M.; finished cntting, 3:02; began threshing at 3:02½; finished one bushel at 3:03¼. Commenced grinding at 3:04¾; finished at 3:06¾. Mrs. Lawton hegan making bread at 3:08; finished at 3:08½. Griddle cake baked at 3:09¼; and biscuit haked and eaten at 3:12; the whole accomplished in 11 minutes. The reaper and thresher and the mill were thoroughly cleaned out before the trial commenced and not a particle of flonr was nsed that did not come from the wheat cnt in the above trial. The witnesses kept separate time and in the result all time agreed."

If this can he done in so short a time, why need any one be hungry? All a man would need to cook his own breakfast on a journey, would he a field of wheat, a threshing machine and a flour mill. We commend the above to be printed in the next edition of the "Tramp's Guide" as a recipe for a hasty breakfast.

INTERESTING EXPERIENCE WITH THE GRAIN WEEVIL.—A New York grain merchant writes to the *Country Gentleman* as follows: The only way to be rid of weevil is to keep grain in a clean place, and to spread out until thoroughly cured, so as to avoid heating. It is very difficult to clean a place where weevil has been prevalent, as they and other grain pests hide in the cracks and seams of the bin, and no cold of winter will certainly kill them. The germ of the weevil is often in grain that to all appearance is perfectly sound, and only awaits a snitable amount ot moisture and heat to develop. In grain houses our only remedy, when we have a lot of infested grain, is to screen frequently, and try to keep it cool till winter. I know of nothing to kill weevil in grain, that will not destroy the grain for use for food. I would recommend storing in a new place, far enongh from where the infested grain was kept to prevent them crawling to it. I have often pnt weevils on the floor at some distance from a pile of grain, and they would make a bee-line for the nearest lot—never go away from it. They will sometimes fly, when in the hot sun, hnt not often. I once made a test hy taking ahont a pint of sound wheat from a boat load, in which I could find no indication of weevil, and after sifting it very thoroughly in a coarse hand sieve I put it in a glass jar and sealed it tight. In a few weeks it was alive with large and small weevils (two kinds), and they lived for more than a year in this tight jar. This was a season when there was a great deal of wheat trouble with weevil. Ordinarily when grain is dry and cool the weevils do not injure it. The surest way to keep grain, after it is dry and very thoronghly cleaned, is to keep it in a dark place.

IMPROVEMENTS IN THE OLD STRAW HIVE.—Many bee keepers believe that for healtby bees there is nothing so propitious as the old straw hive, hut the employment of modern progressive methods of bee-keeping were impossible with snch a hive. We now read that at the Centennial, in the English section of agricnltural hall, are a nnmher of bee-hives of twisted straw, looking at first sight just like the pictures in the school primers. A closer examination shows that they nave a nnmher of modern improvements inside, and glass doors for observing the operations of the inhahitants and removing the honey.

The Horse's Foot and Its Diseases.—No. 2.

We continne onr studies of the anatomy of the horse's foot with drawings of the side view of the fore leg and front and side views of the hind leg. In last week's engraving we gave a front view of the fore leg so that it may be well for the reader to refer to it to make the picture complete for the two views of each leg.

Speaking anatomically the foot of the horse comprises all that part of the fore leg below the knee and all that part of the hind leg below the hock joint. In the fore leg the knee answers to the wrist of onr arms and in the hind leg the hock answers to our ankle. If we begin at our wrist and count the bones from the wrist to the end of the third finger we shall see that they correspond to the number of hones from the knee in the fore leg of the horse to the hoof. The same test applied to the bones of onr feet from the ankle to the toe will show a correspondence with the hones of the hind leg of the horse from the hock to the hoof.

We are now prepared to learn the names of the bones shown in the engraving. Fig. 4 is a side view of the fore leg. Beginning at the top and we have first, marked *a*, the hones of the carpus or wrist, or as it is more commonly called, the knee; *b* is a splint bone which it will be remembered represents one of the digits which are but rudimentary in the foot of the horse; *c* is the cannon hone, or, as it is called in the fore leg, the metacarpal bone; *d* is a sesamoid bone, or a small bone enveloped in the tendon of the joint; *e* is the pastern bone or long pastern, as it is sometimes called, being in length one-third to one-half as long as the cannon bone above it; *f* the coronet hone or short pastern, is nearly square in form, heing however, somewhat wider than high. The last bone *g*, is the coffin hone, which is clothed with the horny substance of the hoof. The coffin hone consists of a body and wings, and is fitted into the hoof which it closely resembles in form. Its texture is light and spongy, arising from the qnantity of canals or tnhes which traverse it in every direction, affording a passage to nnmerons hlood vessels and nerves which communicate with the tender parts which snrround the hone. At the same time that the coffin bone is perforated to admit the life to reach the delicate suhstance which surrounds it, by its atrength it protects this substance from injury.

William Miles, who made the horse's foot a study, writes, that in an nnshod foot the front and sides of the coffin bone are deeply furrowed and roughened, to secure the firmest attachment of the surrounding membranes; but in the bone of a foot that has been shod, thia appearance is greatly changed, the roughness giving way to a comparatively smooth surface. He believes that this change is caused hy the shoe limiting, if not destroying, the expansivo power of the horn of the hoof to which it is nailed. Following from this come changes in the membrane as well as absorption of the attaching portions of the hone, and the surface of the coffin bone becomes smooth.

Figs. 5 and 6 show the front and side views of the hind leg. In Fig. 5 the letters *a*, *b*, *c*, *d* and *e*, are the hones of the tarsus, which corresponds to the carpus in the fore leg. Below this joint the hones of both legs have similar names. Thus in Fig. 5, *f* is the cannon hone, *g* the pastern; *h* the coronet; *i* the coffin bone. In Fig. 6, *a* marks the bones of the tarsus, shown from one side; *b* the splint bone; *c* cannon hone; *d* sesamoid hone; *e* pastern bone; *f* coronet hone and *g* coffin hone.

The shape of these bones is so clearly shown in the engraving that is unnecessary to remark it, except in the case of the splint hones which hug the cannon hone so closely that their form does not clearly appear. In another drawing we shall show these pecnliar bones in larger form with others which we have named in this article. Our method of presenting this subject is to give a few points at a time, so that onr young readers may hold the names and forms of the parts clearly in mind.

Fig. 4



Fig. 5

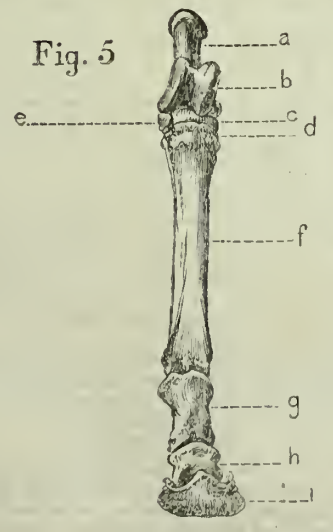
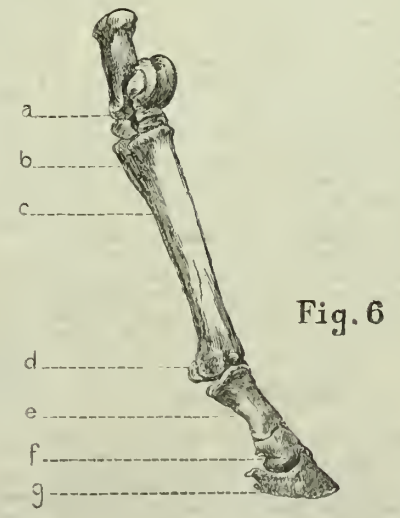


Fig. 6



ANATOMY OF THE HORSES FOOT—NO. 2.

A SPADING MACHINE.—Still come the notes of progress in agricultural implements, or, at least, of efforts which aim at progress. When our back has ached in onr Eastern garden, driving a spade ten inches for each turn, and our boot-heel flown off in the vain attempt to cut through a stone, we have had dreams of spading machines. Now it appears from the *Country Gentleman* that the dream has heen realized. In a recent issue it says: A trial was made last week on Van Rensselaer island, helow this city, of a spading machine, constructed, after three years' experiments, hy the late William E. Bleecker, of New York, and dnring the year since his death, by his son, Henry Bleecker, Jr. The work is done hy a nnmher of forks, each of two tines, worked by cams inside the drive wheels, which are enclosed to prevent choking hy the displaced earth. The movement of the forks is somewhat similar to that of the forks on a hay-tedder. They enter the ground in front of the main shaft, and are thence carried back, lifting the soil very much as is done by the ordinary spading fork, and leaving the ground in precisely the same condition. The trial machine spaded a strip three feet wide and over eight inches deep, as fast as a pair of horses could walk; hnt the displacement of so large a quantity of earth (equal to three furrows 12 inches wide and eight inches deep), was too much for an ordinary team, and three horses were needed for this amonnt of work. The quality of the work was all that conld he desired, leaving the field like a garden. If the machine had been made to work only 24 inches wide, an ordinary team could fit fall plowing better for seeding in the spring, at once going over, than could be done by a plow, cultivator and harrow in going over it several times.

THE PECULIARITY OF THE HONEY TRADE.—Mr. Davidson, whose mission to this city on the honey product we mentioned last week, finds the city trade in a somewhat peculiar condition. He says: "I find that honey has been consigned to all kinds of dealers in this city; stove men, draymen, grocers, tobacconists, lnmher dealers, etc., who of conrse, know nothing of the market valne. These consignments have been made to abont half as many persons as we have producers, and the general instrnctions have been to sell at some price. Fruit is very low and large quantities are coming forward, and it is therefore not a proper time to sell. Independent action on the part of producers have broken down the market to almost ruinous prices, and it will require a very extraordinary effort to change it, and we think this work must be done hy the producers, hy holding until new avenues of trade are worked up in a systematic way, and the demand be developed in proportion with our production."

THE PEANUT MARKET.—There are indications that there will be a good demand for the coming peannt crop. An extract from a letter on the growing peanut crop, from Virginia, states that we must not look for more than one-third of a crop the coming season. Thousands of acres have been plowed up for corn, after two failnres of seed-planting, 2,500 bags being used in the second planting, with the result above stated. As a consequence a large advance must take place in the price of the same. Virginia stocks are very light and firmly held. Tennessee reports a similar state of things as to her crop.

CORRESPONDENCE.

Truckee Meadows.

EDITORS PRESS:—What delightful associations are linked with farm, field and meadow. The fresh spring flowers peeping up in a thousand varied hues from amidst the waving grass; the rambler, with fishing rod, along the banks of some sparkling rivulet as it meanders thro gh the meadow; the playful lambs skipping on the hill-side, or cattle quietly grazing in the distant pasture; or, better still, the romp with sweet-heart on the new mown hay.

Thonghts such as these came pouring in upon me thick and fast as the pattering rain drops now falling (July 22d), and bringing with them all the freshness of childhood's realization, when first I gazed with wonder and delight upon the broad acres of green, thick-set grass, spread out in every direction before me, ripe for the mower, or already piled in huge hay cocks for cattle in winter, or awaiting the press to be baled for the market abroad.

Truckee Meadows,

Including Steamboat valley, embraces about two townships, or over 20,000 acres of good arable land, with an abundant supply of water for irrigation from the Truckee, and some smaller streams from the mountains.

The valley has the appearance of once having formed a part of some great inland sea, embracing Washoe, Carson and other valleys; and more recently, perhaps, was a beautiful mountain lake similar to Donner or Tahoe, with an outlet where the clear, blue waters of its principal river have broken through the mountains on their rapid course to Pyramid lake. It is less than 20 years ago since

Mr. Peleg Brown,

(Under whose hospitable roof I now write, and to whom I am indebted for much valuable information,) first settled here, followed in a short time by a few more families. The meadows now support a large population. Reno, the county seat of Washoe, having sprung up here in a day, as it were, on the entering of the Central Pacific, and containing at this time over 2,500 inhabitants. Another impetus was given on the completion of the Truckee and Virginia road. So in addition to all its natural advantages the valley has been highly favored. The soil has been sufficiently tested to show that good grain can be produced, although not regarded as a profitable crop. A few acres of good wheat, well headed out, were seen on the ranches of Mrs M J. Howard and Mr. B. G. Clow, nine miles south of Reno. Mr. E. Crane, in the same neighborhood, informed me that he had 12 acres as fine and plump as the best Wisconsin. Some small patches of oats were seen from the roadside. The choicest potatoes, some of them finding their way, I believe, to California, and the tenderest cabbage, together with almost all kinds of vegetables, are found. Within a few years much attention has been given to

Fruits,

The smaller varieties being seen at nearly every house.

Mr. T. W. Norcross, J. C. Smith and others have good blackberries, and in considerable quantity. Apples in particular, although killed this year, are represented to be excellent, being both juicy and palatable. Mr. R. P. Chapin commenced a young nursery last spring with 10,000 choice varieties of apples, grafted yearlings, such as "Baldwin," "Tompkins Co king," "northern spy" and "Long Island russett." He has also 1,000 each of plums, peaches, pears, etc., and as many of walnuts, butternuts, and of chestnuts, (different varieties.) The latter were by no means so thrifty as his other trees, probably having had more water than was required, as they are a native of the mountains and accustomed to a dry soil. Much room was also given to the Irish juniper, the arbor vitæ and the Norway spruce, which will in future enhance the beauty of the numerous cottonwood groves that already encircle and adorn many a home around Glendale and other parts of the meadows. Young orchards are springing up on every hand Seven thousand dollars' worth of trees were sold here last year by an agent of a Pennsylvania nursery, saying nothing of the supply from Mr. Conner's nursery at Reno, and from those of California.

Bees

Do well here and nearly every family has a few hives. Mr. Brown, previously alluded to, had two hives last year from which 150 pounds had been taken, still leaving the greatest abundance for the bees to winter on. Mr. Dickey, two miles east of Reno, informed me that he bought a hive last year which had given off eight swarms, exhibiting a wonderful tendency to multiply. I have reason to know, from dear bought experience, some of the naughty tricks of this little architect, but had forgotten, if ever aware of the fact, that it was given to theft. A lady not far from Glendale admitted to me that her bees had crossed the Truckee and robbed the hive of a neighbor, but remarked, by way of palliation for this serious offense against our sense of justice and propriety, that a bad example had first been set her bees by the said neighbor breaking the comb and robbing his own bees of their honey. Another case in point and bearing a close relation to the same subject, was reported where one swarm had attacked another and made an inroad into their works, forging on the rich stores of the enemy, the latter had been known to fall into line and aid the foe in making an end to the repast. It is not at all improbable that in both these instances one or more of their delicate senses had been so much excited as to whet the appetite to a degree that was irresistable, the destruction of the honey following as a matter of course.

Blooded Stock

Has received no very considerable attention as yet. Mr. J. C. Smith has a few fat heifers of Durham blood, and a very fine full blooded two-year-old bull, large and well proportioned, and, taken altogether, a splendid specimen of his kind.

Mr. A. A. Longley has a very large two-year-old colt. He was evidently proud of his Morgan Chief, and well he might be, as he measured 16 hands in hight, and had taken two premiums at the Nevada State agricultural fair. His pet two-year-old calf, if such it could be called, measuring as he did, seven feet five inches around the girth; three-fourths Durham and one-fourth Devonshire, and almost as white as the snow on the Sierras, is a real beauty, and if any larger animal of his age can be found in the State, it would well deserve a premium at any fair.

It is not much of a digression (for Henry Clay was almost passionately fond of fine stock) to say that I saw a business letter of his here, written in the year 1847.

Some say that a man's character can be judged by his hand-writing. I expected to see a bold, dashing hand, rather large than otherwise. It was fine, almost feminine, but written from side to side as straight as if it had been ruled and the lines equi-distant.

Mr. Peleg Brown, who has a well cultivated ranch within a mile of Steamboat springs, has given much attention to blooded stock, but has lately disposed of most of it, as the cost of feeding during the long winters consumed much of the profits.

Hay Making

Is the great business of the valley, and by far the most profitable. In addition to the native grasses, which make good feed for cattle, timothy and red-top grow in the greatest luxuriance on the lowlands.

Mr. A. A. Longley sowed a piece of land in wheat as early as 1864, afterwards in timothy and red-top, and now has a crop fully up to any year in the past. The ground was never plowed. His hay has taken the premium. In fact it would be difficult to find a better or a finer quality in any country. Mr. Peleg Brown has a meadow of 200 acres, reclaimed 15 years ago; at that time being set with a short, wild grass, from six to eight inches high. He has seeded, dragged and manured the ground more or less every year, and has at this time as fine a growth of red-top and timothy as one could wish to see, standing from three to five feet in hight, and some heads of the latter measuring over nine inches in length. He thinks much of it will yield as high as four tons to the acre.

It has been discovered that a very large proportion of the sage-brush land, wherever it can be irrigated, will produce most abundant crops of alfalfa—some small lots reported as yielding 10 tons to the acre. The average for the valley would probably run from three to five tons for the three cuttings. The amount of hay cut here annually is enormous. In the mountain counties of California, 50 to 100 tons is considered a large turn-out for any single farmer. Here the majority produce more than that. Very many reach 200 or 300 tons, some 500 and 600, as Messrs. Savage and Jess, Mrs. Howard and others. Mr. Brown will probably cut 800, while Mr. B. G. Clow and Mr M. C. Lake are expected to cut each not less than 1,000 tons, making a total for the valley the present season of not less than 20,000 tons, some higher estimates having been made by Mr. Savage and neighbors. I was ready to wonder how they got rid of so much hay, but it all goes in course of the year at fair prices.

A. C. K.

San Bernardino.

EDITORS PRESS:—The "ins and outs" of that portion of the country immediately surrounding this quiet burg will not differ materially in nature and extent from the majority of other Southern California towns.

The rain-fall of last winter was sufficient to render an abundant yield of all products which this county generally produces. No other portion of the State can surpass some portions of this county in the production of barley-hay and barley-grain. Of the latter, from 30 to 75, and not unfrequently as high as 100 bushels per acre have been raised; and of the former, from two to five tons per acre is the common yield. Harvesting commenced in the latter part of May and ended quite early in June. Corn promises well, as, in fact, do all other crops not yet gathered. The yield from the vineyard and orchard will be large, while remunerating profits from the sales of the same, must, owing to the lack and want of a good market, as well as cheap and suitable means of transportation, prove indeed humiliating and discouraging to the producer.

In point of healthfulness it is claimed and must be admitted that this locality "holds over" the coast towns which have long been boastingly advertised as possessing the *cure-all* properties for everybody. The dense, heavy fogs which prevail almost daily in those places are but seldom witnessed here. We plead guilty to the charge of being favored with long terms of "hot weather;" but the pure air and the ocean breezes prevent debility and renders the rays of "old sol," (which to lazy people are somewhat obnoxious) a pleasant and effective remedy to take.

This valley is well wooded and watered. The landscape scenery is unsurpassed. The soil, which varies greatly in its component parts, is rich and deep, while the inhabitants, as a rule, are content in making an easy, comfortable and quiet living. Habits and customs are in striking variance with those of staid New England. There is room for improvement and opportunity for reform.

M. D. WHITE.

San Bernardino, July 26th.

Irrigation—No. 3.

[Written for the RURAL PRESS by JOHN M. HORNER.]

Winter Irrigation.

My first experience in irrigation in California that gave rise to the idea of irrigating before planting the crop, was in 1849, and occurred in this way: Having planted in the usual way that year a patch of potatoes which I finished planting about the last of June, there still remained within my enclosure about three acres unplowed and covered with grass. I had some potato seed left which I was anxious to plant. I took the grass off of a part of the three acres and wet it thoroughly (the water being handy) and plowed it deep, and planted in every third furrow as I plowed the second time. I finished planting about the 20th of July.

Having still a small lot of inferior seed left, I determined to plant them upon the remaining unplowed portion of the field. This I accomplished by pursuing the same course as I did with the piece planted in July, and finished planting about the middle of August.

Frost was late that year, and all the plantings did well. Those planted in June upon the land prepared before the winter rains dried out yielded the most per acre. Those planted in July yielded larger, smoother and better flavored potatoes than the first planting. Those planted in August were equal in size and flavor with those planted in July, but yielded less.

It may be observed if it had not been for the water I could not have planted the last two pieces after taking off the crop of hay, as the land was dry and hard. Potatoes brought as high as 16 cents per pound that year. The

Second Experiment

Worthy of mention under this (to me) new idea was during the memorable dry year of 1864. In the month of June, after all hopes of any further rains had ceased, I cast about for a piece of land suitable to raise late potatoes upon that I could irrigate. I found it at Vallejo mills, now Niles station, Alameda county. The land was in possession of some Portuguese with a crop of barley upon it ready for the mower. I rented the lands of the agent for three dollars and a half per acre for the balance of the year, and bought out the possession of the Portuguese, they removing their crops then upon the land; and I also rented of Jose Jesus Vallejo the right to use the waters of Alameda creek when not wanted for the use of his mill. I thus obtained the possession of 100 acres of land suitable for my purpose and a limited supply of water for wetting it.

Being joined in my enteprise by my brother, Wm. Y. Horner, about this time, we commenced work upon the ditches soon after the first of June, and by the middle of the month we were planting potatoes and continued to plant up to the middle of August. After this we sowed some barley. We also set out upon the 100 acres several thousand cabbage plants in the month of July.

All of the crops did well, and the gross proceeds of the venture was near $10,000. We did no irrigating after the crops were planted excepting some of the cabbage.

The Plan Pursued.

We wet the land thoroughly and followed with the breaking plow three days after the wetting, and by harrowing immediately after the plowing the land was put in good condition.

We planted in every third furrow at the second plowing, and as soon after the breaking as circumstances would permit.

Thus by the use of water the two crops were taken from the land the same season, and the last worth many times more than the first. The first crop would have been quadrupled in value had "winter irrigation" been applied by wetting the land before sowing, and the last crop would in all probability have been increased in quantity by the operation, as then the land having been filled with water a few months before, less would have been required to fill it for the second crop, and the ditches required for the first wetting could have been made partially available for the wetting for the second crop. If we could have been thus assisted our labors would have been shortened at least 20 days, which would have materially increased the yield of potatoes, as those planted the last three weeks yielded less, owing to the lateness of the season and the poor quality of the seed at that late period.

[To be Continued.]

German and English Agricultural Associations.

EDITORS PRESS:—With reference to the agricultural associations of Germany and Great Britain, they may be correctly described, in general, as very similar to ours in the United States before Granges were introduced. Possibly there is this difference in their favor, that they are somewhat more efficient and practical in their character than our's were formerly.

Accept the following details concerning them:

Germany.

1. The entire number of agricultural societies in the German Empire is, in round numbers, 1,100, or, exactly, up to the beginning of this year, 1 098. These are organized independently and freely by the farmers of any community. They adopt their own laws and regulations to suit themselves. These societies usually include the teachers of their respective districts, justly valuing them as members on account of their intelligence. Their local associations are generally united in district agricultural societies. But even the 11 provinces of Prussia have no separate provincial ones, and there is no national agricultural association. Some of these societies meet monthly, others quarterly. They fix their own dues, which vary in different districts. The usual entrance fee for members is one or two German thalers, say 75 cents or $1 50, and annual dues of from five thalers, say $3.75, down to two marks, or 50 cents. The annual dues of quite a noted one in Berlin amount to 18 marks, or $4.50 in gold. Some of them partake rather of the nature of a social club, and have five or six feasts or dinners annually. To induce the small farmers, or *Bauern*, as they are called in Germany, to join in the work of these societies, their dues are usually made as light as possible. It is certainly a very suggestive fact, that this class are so distrustful of these associations that every inducement must be used to lead them to join. It affords pretty good evidence that they do not look upon their present agricultural societies as meeting their real wants. Evidently their principles and work do not go to their homes, and hearts, and everyday life, as the Grange does with us.

Any man who wishes to do so can join these societies if he applies and is elected by a majority vote. No ladies are admitted to membership, either in Germany or England. The fact is that, with all their boasted civilization, our friends on this side, are not yet sufficiently advanced and enlightened to know how wrong they are, and what strength they lose by excluding the ladies. But they will, no doubt, improve as they learn more about the good service done by this most important element in our Grange work.

Their officers are usually a president, secretary and treasurer, though some societies have as many as eight officials, all of whom can, I am informed, be chosen from any capable members.

In addition to these societies intended to secure the general interests of agriculture, there are some associations formed also for special purposes, and which act independently of the others, as for bees, silk culture, vineyards, or even poultry, like the "Cypria," which has fine exhibitions, one of which I attended in Berlin, for birds and fowls.

It is acknowledged in Germany that there is not sufficient unity and sympathy between these various associations. The farmers belonging to local societies are frequently prevented by local interests and isolation from uniting with the regular and larger associations. Sometimes even political prejudice prevents their uniting with them. In other words, a want of just such fraternal feeling as an organization like the Grange can and does supply, prevents among them a hearty co-operation for the interests of agriculture. Personal animosities, selfish interests and false notions of economy prevent many from joining in the work attempted by these German societies.

Just such difficulties, in short, have hindered their progress as divided our farmers before Granges were introduced among us. Once a year usually, many of these societies exercise the right of petition to the government for laws and appropriations to advance agricultural interests. The Emperor William's present Minister of Agriculture, Dr. Friedenthal, has the credit of taking many successful steps towards centralizing and combining these associations. Among other things looking to this end, it is now required that they must apply for government aid of any kind through the more central societies.

Although the experimental farms, connected with the agricultural academies or colleges, are usually supported by the government solely from the funds included in the budget of revenues each year, some of the agricultural societies contribute to the maintenance of the agricultural schools and experimental stations described in a previous letter.

In answer to my question, "Have the agricultural societies of Germany accomplished much for the true advancement of your agricultural interests?" Dr. Friedenthal replies, "Certainly they have done so with regard to the technical improvement of agriculture, and also with regard to the protection of the farmers' interests."

There are also among German farmers mu,

tnal insursnce associations for their buildings-cattle and crops. Besides these they have msny co-operative societies for loans, there being some 170 such institutions in the Rhine provinces alone.

It may not be out of place to record here the following facts concerning German agriculture: Out of 68 government farms, 40 rented higher in 1875 than in former years, and only 18 for less, though last year was not especially favorable tor farmers. Commenting on this fact, a leading German paper says: "Therefore, government statistics prove, that Prussian agricultnre is not at all on the wane." Land in Prussia is divided into "morgen," meaning literally mornings, that is, abont as much as s man can plow in the morning. A morgen and a half make about an scre. Four morgens make one hectar, or not quite two acres and a half—2.47 acres. Now, per hectar, most of the government land rented in 1875 for 29 msrks, about $7, sgainst 21 marks or about $5 the previous year, that is, about $3 per acre instead of $2.

This is, by the wsy, much less than the rates at which land is rented to the "tenant farmers" in England and Scotland, where the aversge rents range from $7.50 to $15 per acre.

2. Let us now examine, in brief, the character of

English Agricultural Societies,

By which I mean those of the United Kingdom. Throughout England and Scotland they are most numerous. Irelsnd has as yet but few.

Such associations here are of three kinds:

1. Agricultural Societies,

Composed of all classes of the people. They chiefly provide for the shows and fairs, snd occasionally for horse races. Valuable papers are sometimes read at their meetings.

England has of these on record about 180, Scotland 120, and Ireland seven. The Royal sgricultural society of England has unqnestiouably been of great benefit in developing agriculturnl knowledge and progress in many ways. It has under its charge the Roysl agricultnral college, located at Cirencester, founded but a few years ago, and the only institution of the kind in Great Britain. This college commenced operations in 1845, and now has 85 students attending it, an increase of 10 over last year's numbers.

2. Chambers of Agriculture,

Composed of land owners and tenant farmers, including members of Parliament and other politicians. These discuss almost exclusively the laws enacted or needed in the interests of agriculture, or bearing npon it in any way. They are decidedly political in their character, and are evidently used as stepping stones for political preferment by aid ot farmers' votes. They are confined almost exclusively to England, where some 52 exist with 40 branches, while Scotland has but one, and Ireland none recorded.

3. Farmers' Clubs,

Composed chiefly of tenant-farmers and small land owners. Their work is especially to discuss the practical questions of farming. Of these England has some 60, Scotland, 26; the number in Ireland uncertain, but small. Their mode of discussion is for some one to prepare a "paper" on a given subject, which is resd. Then other members discnss it. These comprise altogeth r abont 500 such associations for the whole United Kingdom. They have, beyond question, accomplished many good results, and have in various ways become a constant stimulus to greater excellence in the different branches of agriculture. But as regards real co-operative effort, a harmonious working together in large bodies to gai n certain desirable objects; this is a thing as yet almost totally unknown among the farmers of Great Britain. Indeed, they are suffering for the want of it. One need not mingle long with English farmers and hear them recount their troubles and disappointments, without being fully convinced that their great want today, in common with all farmers, is effectual "association, combination and co-operation."

True, their "agricultural societies" tend to improve their fine stock and other farm products, as well as their farm practice.

Their "chambers of agriculture" discnss questions of tenant rights, taxes, etc., and petition Parliament to pass or amend laws; and considerable attention is paid to their requests, though too often the laws enscted do not really protect them, as they had reason to expect they would. The discussions in many of their farmers' clubs are of an eminently practical character, and elicit valuable facts and principles.

J. W. A. WRIGHT.

Correction in Weights and Measures.

EDITORS PRESS:—Allow me to call your attention to some errors in an article on "Weights and Measures," in your issue of July 29th, 1876. The dimensions given make all the boxes too smsll, except the peck measure, which is too large. The "imperisl bushel" is given about 68 cnbic inches, when it should be 2,218 192-1,000. I will give more exact measurements tor boxes, as follows:

		Cubic in.
Bushel	16 by 16 by 8.4 deep =	2,150 4
Peck	8 by 8 by 8.4 deep =	537 6
One-half Peck	8 by 8 by 4.2 deep =	268.8
Quart	4 by 4 by 4.2 deep =	67.2

Other measurements might he given, bnt the above are perhaps as convenient as any for mechanical construction. The dimensions for a box to contain one-half a busbel are not given in the srticle referred to, but may he 10 by 10 inches square and 10¾ inches deep, which gives a close approximation. OREA GARVIN.

Kingsbury, Ang. 1st, 1876.

Hardships in Humboldt County.

EDITORS PRESS:—We have now a number of plagues upon us st once. We had a very stormy winter and a cold, wet spring. Some of our seeds perished in the ground. Our crops are late and light with some rust. Our potatoes are blighting again, and as if all this is not enough, the cnt worms have come upon us snd are doing much harm.

We have a strange weed which came here about six years ago and has become a great pest. The more we cultivate the better it grows. Some call it "wild flax" and some "devil-gut." It is the only weed that ever got the better of me. I think the best way to stop its spreading will be to sow grass snd pasture it off. Cattle seem to eat it with other grass.

I almost despair of killing weeds by pasturing, as I see fields laid down to grass six years ago which have heen broken up and put in crop this spring and still the weeds are all there. This land was pastured with sheep. so hard that the sheep ate every dock and brier, and there was not a plsnt of mustard, wild turnip or radish to see, yet st the end of six years when the land is turned up to the light and heat these weeds sre here still.

Now to plant more roots and keep down these weeds by cultivating, will not pay at the low prices of butter, beef and pork, with the high price of labor, even if we raise a good crop. But we are not insured against blight and worms One of my neighbors planted eight acres in beets so as to keep his dairy a going through the winter. He has a good crop of hay but no beets. The worms have taken every beet. We have sold our spring butter at a low price, and we are not likely to get much more for what we have on hsnd. The price of all kinds of grain is falling so fast that we shall find it hard to make both ends meet.

BRUTUS.

Ferndale, Csl., July 29th, 1876.

Cheer np and push ahead brother. There are better days coming. The "devil-gut' is a grievous weed. It has been known in some counties for a long time. Will some reader tell us how he deals with it and with what success?—EDS. PRESS.

BEES.

Improvement of Italian Bees.

At the ninth annual session of the Michigsn Beekeepers association, George Thompson read a paper concerning the improvement of the Italian bee. He said:

Many seem to be satisfied when they obtain an *imported* queen, or queens from an imported *mother;* this is all very well so far as it goes, but I have yet to learn thst the bee-masters in Italy have paid much if any attention to the *improvement* of the Italian bee. Now with this understsnding, coupled with the fact thst there are a great many dark, and even black bees in Italy, there must of necessity be a very great diversity both in color and disposition; and there is no beekeeper in this country, who has for years cultivated the Italian bee, but mnst have noticed the great tendency, as florists would say, to sport, therefore making all tests of purity very unreliable.

In Germany, from whence we have derived the most of our knowledge of the physiology and habits of the bee, considerable sttention hss been paid to the improvement of the race, and the prominent apiarists there say that the Italians are not unitorm in color—not a *fixed* variety. The Italian bee, in America, has also been much improved; England has come here and taken back an improved stock of her own breeds, far surpassing the original, beautiful Italian bee.

But we must not rest with results already obtained, for we live not only in a progressive country, but in a progressive age; we must still endeavor to reach a higher standard of beauty and purity. The question naturally arises, how is this to be brought about? In my humble opinion one of the chief means is the

Improvement of our Drones.

Most bee-breeders have paid more sttention to the queen than the drone. Let me draw your attention to the fact that cattle snd fowl breeders give as much if not more heed to the male, and they are very successful in their operations. Now if we depend entirely on the queen tor all the points desired, disappointment will follow.

The drone question has not, however, escaped the attention of the master minds in beekeeping. Dzierzon says: "It is my practice always to select and reserve only the perfectly marked queens *and drones*" Berlepsch says: "I shall constantly endeavor to preserve and breed from the finest, that is, the most brightly colored *drones.*" Vogel says: "Accordingly in our endavors to provide an improved breed, our attention must be pre-eminently directed to the *drones.*" Langstroth says: "As the drones of some Italians are much more beautiful than those of others, we can select a stock containing such to impregnate our queens." Now I think you will see from what hss already been ssid, that this snbject has not received the attention that it demsnds.

There are

Three Points

Which ought and csn be much improved, viz: color, size and disposition; and it will be an advantage, of conrse, if we can work for all the points at the ssme time. I have not named prolificness as one of the points, for I think, as a rnle, queens are prolific enough if the conditions of the hive are all right.

Some beekeepers seem to be under the impresion that our queens are lowered in vitality as they are raised in color, but as far as my observation extends, the brightest colored are as prolific, snd long lived as the dark ones. Others again say if we breed too close, our stocks will become impaired; true, the same natural lsws that govern life in all its phases govern bees, but the careful breeder can easily avoid this by exchange or new importation, and not allow his stock to run down on account of too close breeding; but we must breed in snd in, to some extent, in order to bring out the points desired. The bright colored queens and bees are certainly more pleasing to look upon than the dark ones, and it is certainly a pleasing sight to see a company of young bees, for the first time, sporting in the noonday sun.

I would, therefore, urge each one not to rest satisfied till he obtains his drones as beautiful and distinctly marked ss his workers. This, in my judgment, is one of the means through which we may expect to improve the Italian bee.

THE VINEYARD.

How a Famous Wine is Made.

Among the white wines of France, ssys the *British Trade Journal*, the famed chateau d'Yquem occupies the first plsce, equslling in repute the renowned Johannisberg and the yet more renowned Tokay. The place of its growth in the department of the Gironde is the property ot the Marquis de Lur Saluces. It is the most luscious and delicately sromatic of wines, with a color resembling liquid gold, an exquisite bouquet, and a delicious flavour, said to he due to the presence of mannite. The distinguished French chemist, Berthelot, informs us that mannite has the peculiar quality of not becoming transformed into alcohol and carbonic acid during the process of fermentation. Mr. H. Vizetelly, who scted as juror of wines at the Vienna exhibition, says:

"The characteristic qualities ot chsteau d'Yquem, which certain *soi-disant* connoisenrs pretended to pooh-pooh as a mere ordinary *vin de liqueur*, are due in no degree to to simple accident. On the contrary, the vintaging of this wine is an extremely complicated and delicate affair. In order to ensure the excessive sottness and rich liquor character which are its dietinguishing qualities, the grspes, naturally excessively sweet and juicy, are allowed to dry on their stalks, preserved, as it were, hy the rays of the sun, until they become covered with a kind of down, which gives to them an almost mouldy appesrance. During this period the fruit, under the influence of the sun, ferments within its own skin, thereby attaining the requisite degree ot ripeness akin to rottenness. On the occasion of the vintage, as it is absolutely essential that the grapes should be gathered, not only when pertectly dry, but also warm, the cutters never commence work until the sun has attained a certain hight, and invariably suspend their labors when rain threatens or mists hegin to rise. At the first gathering they detatch simply the *graines roties*, or such grapes as have dried after arriving at proper maturity, rejecting those which have dried before thoroughly ripening, and from the former a wine of extreme softness and density, termed *creme de tete*, is produced.

"By the time the first gathering has terminated other grspes will have sufficiently ripened and rotted, or dried, and both sorts are now detached, yielding the wine called *vin-de-tete*, distinguished by equal softness with the *crem de tete*, but combined with a larger amount of alcohol, and greater delicacy of flavor. At this point a delay generally ensues, which is long or short, according to the state of the weather, it being requisite towards the end of October to wait while the rays of the snn, combined with the night dews, bring the remaining grapes to maturity, when the third gathering takes place, from which the wine termed *centre*, frequently very fine snd spirituous, is produced. Another delay now ensues, and then commences the final gathering, when all the grapes remaining on the stalks are picked, which, when the vintage has been properly conducted, is usually only a very small quantity, and yield what is termed the *vin de queue*.

"The grapes being dried and shrivelled, considerable pressure is requisito to extract the juice from them, and at the Chateau d'Yquem this is accomplished by means of the ordinary wine press. The 'must' is at once put into casks, where it is left to ferment for three weeks or a month, and even longer, according to the state of the temperature and the quality of the wine, during which period it throws off whatever impurities it contains; but only becomes perfectly limpid after being racked in from one to three months' time."

STOCK BREEDERS.

Pedigree and Utility.

Our friend Prof. G. E. Morrow, of the Iowa agricultnral college, delivered an address before the Iowa Fine Stock association at its recent meeting st Vinton, in which we find such strong statement of our own convictions on the subject of pedigree and utility that we quote as follows, giving our hearty approval to the worde:

The permanent prosperity of the fine stock interest depends on its securing the co-operation of the general farmer. The best advertisement for a breeder is to show by the production of more and better beef, or pork, or milk, or wool; or by getting more work, that his stock is better and more profitable. I might give little heed to arguments to show that good qualities may become so prepotent as to be invariably transmitted, but I must be indeed a dull scholar if I allow you, with similar treatment, to get better prices for the produce of your stock, and yet take no measures to learn the reasou. Hence breeders should keep animals for use as well as for sale. It is a very appropriate additiou to the show or "breeding" flock or herd, to have a bunch of high grade steers or fattening wethers or pigs; to be able to point out, in the work or driving teams, the actual results of a cross of your favorite breed.

Next to this I would name having a proper idea of the relations of pedigree and individual merit. Pedigree has great value. It is a partial history of the ancestry of the animal and gives the best attainable evidence that they were ot good character. This evidence is only presumptive, bnt it is of value; of such value that he who pays no regard to anything but the individual animal makes a great mistake and has little prospect ot high success as a breeder. But pedigree can never take the place of individual merit; the best test of the excellence of a pedigree is the general excellence of the animals tracing through it.

If we would secure the co-operation of the general farmer we must not pay more regard to a purely fancy point than to one of practical importance. If we will pay a large price for one animal, and only a very low one for another, because the first has a few, more or less, white hairs on his nose or his tail, we mnst not be surprised if our stolid neighbor pronounces the whole thing a humbug.

When we hear a man, as he looks at a fine specimen of a fine breed, say "it's all in the teed," we are naturally disgusted. Let us all be careful not to fall into the opposite error of saying, "it is all in the breed." The best of blood will not make good care nnnecessary. By the development of the desired qualities we have ordinarily made the animal the less able to withstand abuse, hence, breeders should not only teach the advantages ot their favorite breed, but should also impress on purchasers the necessity for good care.

HORTICULTURE.

How the Louisiana Orange is Handled.

Samuel F. Gard, a Louisiana orange grower, writes to the *Home Journal* describing the way in which the orange crop *is* marketed and the way in which it *ought to be* marketed. We shall quote a few paragraphs which may be both interesting and suggestive to our own fruit men:

The Way Oranges are Handled.

The present method of handling the orango crop in Louisiana is about as clnmsy and awkward as it possibly could be. There are exceptions, but I speak of the crop as a whole.

First, the lugger-men, mostly Sicilians, go into the various orange districts of the State, beginning in August and continuing through the ripening period, and buy up all the oranges they can find, paying, usually, part cash at the time of purchasing, and the balance when the crop is gathered by them. They purchase by the thousand, to be counted when gathered, or in the lump, and, being experts in estimating the number of oranges on a tree by looking at the tree, they usnally get the advantage in the estimatiou of the amount of the crop over the owner or the orchard. They purchase with a view of making from 50 to 100 per cent. on cost price. They gather the fruit, stow it away in boats in bulk, holding from 25,000 to 60,000 oranges. They handle the fruit with reference to its keeping well as long as it is in their hands, and this is usually about one week. If the oranges all rot the next day after leaving their hands, no matter to them, as it only makes a demand for more to take the place of the spoiled ones.

These lugger-men sell their oranges to the various fruit merchants in New Orleans. The latter purchasers giving themselves a large margin to go on, and after supplying the home wants, send the surplus up North to be disposed of, or to fill orders received from there. Before the fruit gets to the North and West it has been handled so often, having been picked up snd laid down, thrown into basket and out

(Continued on Page 114.)

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Copies of the Constitution and By-Laws of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

Prof H.—Subscribers who pay fully one year ($4) in advance for the Pacific Rural Press can receive the California Patron *free*, or other premiums. See our premium list in another column.

Grange Directory.—A full list of Subordinate Granges, Masters and Secretaries, of California and Nevada, is published as often as once a quarter in this department. See issue of July 8th for latest insertion.

J. V. Webster, W. M. S. G, Visits Healdsburg.

Editors Press:—On Saturday, the 22d inst, Bro. T. H. Merry and your correspondent, boarded the steamer *Donahue*, plying between San Francisco and Donahue city, the terminus of the Northern Pacific railroad. Bro. M. was braced for the journey with three daily newspapers, and a linen coat, buttoned clear up under to his "Adam's apple," as a protection "gainst bleak winds that blow harsh music."

Donahue city is situated on the eastern side of Petaluma creek, about ten miles below Petaluma. Passing Petalnma, the railroad runs through a "low, green valley," similar, I suppose, to that on the "old Kentucky shore," immortalized in the song of "Nellie Gray." The greater part of the valley is so low, in fact, that it was flooded last spring to such an extent that very little grain was sown, and the greater part of that was drowned out, consequently there is little else than hay to gather, and that indifferent in quality. The valley is from one to three miles wide, and is well adapted to the raising of alfalfa—rich heavy soil, low and moist, with flooding sufficiently to drown out all gophers and squirrels. Irrigation would be in a measure, superfluous, for I am fully satisfied that splendid crops of this product can be raised here without it.

Up around Santa Rosa the land is higher, consequently crops are better, but the yield of grain for this county, including Russian river, will be much below the average. In fact, the indications are, from the grain already brushed, that there will not be more than half a crop.

Reports from Windsor and Mark West affirm that the grain is much shrunken, that the hot weather the first part of July scorched al grain in the milk or "dough" to such an extent as to blast the south side of each head, and to shrink the grain on the other side.

About Healdsburg (the point of our destination), much corn is raised, some of it looks well and some is late and indifferent. In and about this town is the ideal of a Granger's country, for each Patron appears to have a "little farm well tilled, and a little wife well willed."

The occasion at Healdsburg was the

Consolidation

Of Geyserville Grange with that of Healdsburg. The Grange hall occupying the front portion of the second story of a substantial brick building, built and owned by the joint stock company, or "Granger's Co-operative Association" of that place. Their

Co-operative Store

Occupies the whole of the first story, the back portion being used for the "dairy department." The large and general assortment of merchandise constantly on hand in this establishment supplies almost every want of the community, and is the town balance wheel which regulates the price of everything sold.

The merchants of the town—constituting some dozen business places—have, on two or three occasions, combined to break the confidence of the Grangers' store. This is an illustration: When the Grangers started in business they sold seven and one-half pounds of sugar to the dollar. The other merchants at the time were selling only seven pounds. Consequently the Grange store had the "draw" on their old customers. This they would not stand, so they combined, agreeing one with another that they would sell eight pounds for a dollar, and thereby take the "starch" out of the Grangers, but it didn't wash worth a cent, for the managers of the Grange store continued to sell at schedule rates, neither turning to the right nor left. The town merchants soon got tired of their little game, for, as they said, "The dash fool Grangers would buy sugar of them" (which they were selling below cost), "then go over to their own store and finish their trading;" so the store-keepers got together and considered what they should do about it.

Brown said, "I can't afford to sell eight pounds of sugar for a dollar." "Neither can I," said Smith. "Then what shall we do," said another. "I propose," said one, "that we go back to our old price, and sell seven pounds for a dollar." "We can't do that," said Brown, "for the Grangers won't agree to change their price, so if we go back to seven pounds, the Grangers' store will do all the business." "Well, boys," said Smith, "we had about as well fall into line, for the Grangers have got the lead, and we are compelled to follow."

The foregoing was related to me by more than one Granger as a matter of fact. A merchant of the town said to me, "What is the future prospect of the Grangers?" "Bright indeed, sir," I replied, "and this is considered one of the strongholds of the Order in this State. To-day Geyserville Grange has consolidated with that of Healdsburg. Windsor Grange did the same thing a short time since, so now the Grange located here has a membership of nearly 300, with some very good material yet to work on." "Confound them," said he, "they have played hob with our business; they are selling goods so low I don't believe they have profit enough to pay running expenses. I think I will quit the business, for there is no profit in it. I have a stock ranch up in the mountains, where I can make more money than I can selling groceries."

If we had

Fifty Co-operative Associations,

Similar to that of Healdsburg Grange, and conducted as it is, strictly in accordance with business principles, they would give us more strength, as an Order, than all of the Granges in the State as now constituted. The evident tendency of the Grange movement is toward the concentration of our forces, around the points whence trade radiates, which may be like the wings of a great army used to strike the enemy by divisions; or concentrated in one place for great emergencies. And—I beg your pardon, Mr. Editor—I set out to tell you about the Grange meeting at Healdsburg, and here I have been off on a tangent for the last half hour. Well, the

Granges Assembled

In their commodious, well furnished hall, at 12 M. After some music from two fine instruments with accompaniments, the Grange was called to order and opened in due form by Worthy Master Capel. No rituals were used in opening, an example worthy of imitation.

The late members of Geyserville Grange being in waiting were admitted to the hall, and after excellent music and some marching they were introduced by their escort to the Worthy Master, who extended to them kindly greetings and words of welcome. After which the orator of the day, Brother Merry, was introduced and delivered the address of welcome, recalling many pleasing reminiscences of the past and giving words of council and encouragement for the future.

The Feast.

When he had finished, and the magical effect of his eloquence had somewhat subsided, a recess was declared, that the "inner-man" might partake of some substantial consolation. The good sisters had supplied the table (which was something less in length than a rope walk) with everything needful; when, as a finishing touch, a few more roast turkeys and chickens were piled on, the countenance of Bro. M. (who had taken up his position on a dry-goods box, near the center of the table, in the early stages of its preparation) brightened up, and the shadows passed from his face, as passes an eclipse before the full moon.

The dinner, which was hugely enjoyed by all, being over, the Grange was again called to order and proceeded to business, when your correspondent was called upon for a "little talk," after which Bro. M. closed up the day's work in grand style, carrying off the honors of the day, and a long list of subscribers for the *California Patron*.

In my perambulations around town I fell in with Smith, a relative of the notorious John Smith, whose acquaintance is as wide as civilization. Well, I stayed over night with Smith, and found him worthy to share his ancestrial honors, and to entertain a Granger.

Next morning Bro. Nally, coming into town, invited me to take a drive with him down the river to see his farm and take dinner with him. On our way we passed some splendid farms, principally planted to corn, which, upon an average, looks exceedingly well considering the late, wet spring.

Bro. Nally's domicil is situated on a hill overlooking the valley, and the winding river, the path of which is indicated by the green belt of timber skirting its limpid waters.

His home is a bower of beauty, and the evidence of culture and the work of fair hands is everywhere made manifest; vines, flowers, grasses and ornaments are everywhere in rich profusion, and I was deeply impressed with the fact, that if a "thing of beauty is a joy forever," then certainly joy forever reigns supreme in that household.

Bro. N. has a fine field of alfalfa, which, he says, has produced so much hay that he don't know where to put it. He has raised some wonderful potatoes, too. He said that he took his Chinese cook and a lumber wagon out in the field to get some for dinner; that the Chinaman could not lift one at a time into the wagon without assistance; hold on; let's see—I am afraid that I have the potatoes and squashes mixed! I guess it must have been the squashes that the cook couldn't lift; but then he told such a big story about his potatoes—how, that he could dig almost any where in the patch, and pull up a sack full. I don't mean to say that he said that the sack grew around them, but if experimenting can develop such a thing, Bro. Nally will have the first sample sack grown in that way.

There are wonders in his orchard also; fine nectarines growing on peach trees without grafting. He can explain the mystery only on the hypothesis that the birds have been gathering buds and grafting for him. What an elysian that must be when the birds warble their sweet music perennially and graft peach trees, all at the same time!

After dinner, bidding adieu to Sister N., whose culture and fair hands have added so many charms to a home naturally beautiful, we sped away to "Poor Man's Flat," which, for sake of euphony, is called "Windsor," where we met Bro. Merry, who, like Demosthenes of old, had been down to the sea shore rounding off the rough corners of his rhetoric, and gathering shells for parlor ornaments.

We boarded the cars for home. By the way, this "Northern Pacific R. R. Co.," is no small potatoes, for the road is well equipped and in first rate running order, making excellent time and affording good accommodations. It is a credit to its projector and principal owner, Peter Donahue, and a good sized thorn in the side of the "bloated monopoly," or Central Pacific R. R. Co. Petaluma has got her back up because, she says, Donahue has discriminated against her in the matter of freights and fares, consequently she is building a narrow gauge road through the winding hills to Saucelito. Well, we are disposed to pat Petaluma on the back, and say, "go in, sister, and get squeezed." J. V. W.

International Co-operation.

This subject that so nearly touches the welfare of the Patrons of Husbandry, according to the *Courier-Journal*, is being put upon a basis acceptable to both the English societies and the Patrons by the untiring energy of Judge Jones, master of the National Grange, and his assistant in the work, Mr. Wright, late a commissioner of the National Grange to England.

The Master published a pamphlet, setting forth the progress of negotiation so far upon which the contracting parties are agreed.

The ground work of the plan is that English co-operators, who are mainly manufacturers, manufacturing laborers and tradesmen, desire to supply their wants in the way of breadstuffs and material direct from the American producer, and the American farmer desires to sell his surplus direct, in order that speculators' commissions, regular commissions, and other expenses may be saved in a way to be shared by both; besides, there are many British articles of manufacture that through a return system can be turned over to the American farmer much cheaper than is now done.

In order to carry out these purposes, a company has been proposed and agreed upon embracing a British and American section, each to be controlled by its own officers, the president of the sections being in alternate years president of the company. The two countries are to be districted and smaller branches established for convenience of business. A capital stock is to be raised on each side and used for the purposes of exchange of products which are to be purchased by the two sections, at the market rates, and sold at what they will bring in the markets after crossing the waters. The necessary details for the carrying out of this system are to be left to the judgment of the stockholders and managers, and will be modified from time to time as circumstances seem to require. The co-operative feature that permeates this plan is what chiefly recommends it. The company will be composed of thousands of societies, and these societies of the consumers themselves. If there is profit derived from the interchange it will go to the stockholders in dividends.

Another recommendation is the promise that British money is to be used at about one-half the rate of interest that American capital commands. The company is called the Anglo-American co-operative trading company.

The Grange Burial Service.

The beautiful and appropriate burial service of the Order is a fitting expression of the sentiments of the Grange at the departure of a member. It has been generally the fact that affection and brotherly feeling have drawn large numbers of members to the grave of a brother or sister. More than this, the services of respect have been such as to endear the Grange to all members; to inspire a spirit of fidelity; to make luke-warm members attend more constantly; to heal fancied dislikes in the family; in short to build up the Grange in strength and fraternal union. We hear of one Grange that neglected to pay the tribute which the ritual provides, to the memory of a departed member. We believe there must have been a lack of information of the event or some other palliating cause. We cannot but urge the members of the Order to suffer no neglect to arise in this branch of Grange duty and privilege. Let Patrons lay aside work and cherish the better spirit of fraternity, and they will be profited in higher rewards than come from cultivation of earthly fields.

The Executive Committee at its recent session passed a resolution to the effect that all additional traveling expenses incurred in excess of 200 miles traveled, in coming to and returning from the State Grange will be paid out of the State Grange treasury.

Answers from Headquarters.

Who are qualified to become members of our Order? The "Parliamentary Guide," which is authority, says: "An applicant must be a person who is engaged in agriculture to a greater extent than in any other business, or in other words, his leading business must be agriculture."

The word "political" in the constitution means partisan politics, and does not refer to general questions of political economy.

Under this ruling it is undoubtedly proper for Granges to consider questions relating to transportation, taxation, finance, or any subject that may tend to relieve them of the burdens they are every day called upon to sustain, especially by reason of a depreciated currency.

A Grange may suspend members from membership for non-payment of dues.

Suspension from membership does not excuse the suspended members from payment of dues during the time of suspension.

A member suspended for non-payment of dues can be reinstated upon payment of all dues up to the date of reinstatement. This rule does not prevent Subordinate Granges from adopting by-laws terminating the membership, or prescribing other conditions of reinstatement.

A charter cannot be surrendered if there is a minimum number required by the constitution to form a Grange, viz: nine men and four women.

In case of the forfeiture or suspension of the charter of a Grange the members thereof become unaffiliated and can join any Grange, (the same as though they had become unaffiliated by dimit or voluntary withdrawal), in the following manner: "The Grange being extinct, can, of course, issue no dimits to its surviving members. The members will therefore, pay into the treasury of the State Grange the amount due by each to the Subordinate at the time of its suspension, if any. The Secretary of the State Grange will then issue to each member a certificate of the fact that their Grange has ceased to exist, that the member was in good standing at the time of its suspension, and was either clear of the books or has since paid his arrearage to the State Grange. This certificate should be deposited with the application for affiliation in the place of a dimit, with the Grange which the holder desires to join."—*J. V. Webster in California Patron.*

Chance for the Grange Abroad.

After describing the existing agricultural societies in Germany and England, as may be seen on page 106, Mr. Wright makes the application of the facts to the Grange, as follows: But as to that general unity of action among the *bona fide* farmers which our noble Grange organization is securing well for us, they are without it, and the conclusion forces itself on me, after such observations as I have been able to make among them, that nothing can ever secure this desirable result for them but a close organization like the Grange.

Really a wide field of usefulness is open both in Germany and Great Britain for the future work of our good brotherhood. Let us hope our Granges will some day, and that soon, "take root and prosper here," as Prof. John Ruskin, noted not only in art but for devotion to social reform, writes me that he hopes it will in England.

The Fruit Movement.—The movement for the Eastern shipment of fruit by members of the Order, in the new refrigerator cars, is progressing. At a meeting of Golden Gate Grange, on Tuesday evening, there was a good attendance and much interest manifested. The proposition for the formation of an incorporation to promote the shipment was under advisement, and was farther discussed at a meeting held on Wednesday. More than this, we are not authorized to state at present. Mr. Earl, who accompanied the experimental shipment to the East, has returned, and is full of the prospects of the enterprise.

Farmers' Meeting in Napa.—A circular has been issued, signed by W. A. Fisher, H. W. Haskell and M. Eyre, jr., committee, as follows: "A convention of farmers will be held, under the auspices of Napa Grange, at 2 P. M., on Saturday, August 13th, 1876, in the Good Templars' hall (up stairs), Edgington's block, corner First and Main streets. You are earnestly requested to attend. Questions of great importance to the farmer, among others the wheat crop, its disposal, price, etc, will be considered. We sincerely hope that you will make it a point to be present."

Placerville Association.—The Grangers' Business Association will soon open a general grocery store here. It is their intention to buy and sell for cash, and to sell for about one-half the profit usually charged.—*Republican.*

Temescal Grange of Oakland, has decided to do away with the usual meeting on the third Saturday in each month, and hold instead a meeting for free farming discussions in the council chambers of City hall.

New Castle Grange.—Miss Maggie Greeley has been chosen Secretary of New Castle Grange, No. 241, Placerville, Cal., in place of W. A. Donaldson, resigned.

Agricultural Notes.

ALAMEDA.

Livermore Items.—Dispatch dated Augnst 6: About five o'clock last evening Dave Jenkins was killed by the explosion of a threshing engine, belonging to Thomas Hay, on the ranch of John Donlans, five miles from town. Deceased was a native of Wisconsin, abont 23 years of age. Wheat is coming in rapidly, most all of which is being stored. Anpacher Bros., who recently purchased the warehouee property of T. J. Edmondson, have just completed another large warehonse for the storage of grain. The are also building a large hay barn, which will store 500 tons. An $8,000 school honse is in course of construction, which, when finished, will be an improvement much needed.

BUTTE.

The Harvest.—*Enterprise*, Chico: The harvest on the Reavis ranch is being rapidly pnshed ahead, 1,800 sacks being threshed daily with two machines. Mr. Reavis says the grain is turning out well, in fact better than was expected. He has a long harvest before him yet. Mr. Abram Bidwell, snperintendent of the Rancho Chico, reports the threshing of between 800 and 900 sacks of grain daily, and the grain tnrning ont first rate. They have enongh to keep them going until the middle of next month.

EL DORADO.

The Hulburd Drier.—Placerville *Republican*, Aug. 3: The Hulburd canning and drying company have commenced operations in the canning department. They were at work on blackberries when we visited the establishment on Tuesday. They expected to begin on peaches in a few days. By their process of canning, every can of the same kind of fruit is precisely alike, and all fruit is put up expressly for table nee. The fruit heretofore put up by the Hnlburd Brothers, pnt up in the same manner, as soon as it became generally known, always found a ready market at an advance over all other brands. Their drier is now completed, and it is a mammoth affair. It is 19 feet in diameter, and is calculated to hold and dry about six tons of green fruit at one time. The works will not be in full blast for a week or two yet.

FRESNO.

Is it Owing to the Ditches?—*Expositor*, Ang. 2: We learn from those who have examined into the matter that the water level in the wells in this town has raised over two feet during the summer. The question naturally arises: "What occasions this rise?" In our opinion it is attribntable to the various ditches that traverse the plains, although none of them are within three miles of the town. If our hypothesis is correct and we are satisfied that it is, predicating our opinion on the experience of those who have investigated a similar, though more marked phenomenon of the kind at Borden, it is fair to snppose that in a few years, when the surplus waters of the San Joaquin and King's rivers are fnlly utilized, the water level will be raised to such an extent that trees, vines and deep rooting plants can be easily grown and with bnt little, if any irrigation. Such an event would completely change the appearance of these almost treelees plains. It wonld not be surprising if, a decade hence, the entire plains from the Chowchilla to King's river were covered with fields of green and and forests of young, vigorous growing trees.

KERN.

Ninety-one Bushels of Barley to the Acre.—*Courier-Californian*, Augnst 3: A most astonishing yield of barley was tested on the Belleview ranch last week. A piece of ground which had not been irrigated, and on which the grain had badly lodged, wae mowed and raked on the 20th of May, laid on the ground a long time and stacked and threshed last week. The ground was snrveyed by W. James, and found to contain 5 4 10 acres. The grain measured 495 bnshels, and weighed 24,790 pounds. It was planted on the 16th day of December. The stack from the balance of the field has not been threshed. It will report as well, but the balance of the field being irrigated the test is not so important. The theory which has been proved is that grain which is planted on any of the ordinarily moist gronnd of the island, early in the season, will yield a first-class crop without irrigation. We shall soon be able to give the result of other fields, with special reference to the amount of irrigation and time of planting. The experiments of this year will fix the management of the grain interest of the farm in this section for all fntnre time.

LOS ANGELES.

Cheese Factory.—*Outlook*, Aug. 2: The San Gabriel Valley farmer's club states that there are 300 milch cows within five miles of El Monte, suitable to supply milk for a cheese factory. Immediate steps will be taken to start the enterprise.

Small Stock of Old Corn.—There are not over 15,000 sacks of last year's corn crop on hand in Los Nietos valley. It is the smallest amonnt for several years. At this time last year there were at least 50,000 sacks of corn on hand.

Chevalier Wheat.—*Express*, Ang. 5: Mr. Ivar A. Weid, has shown us a sample of chevalier wheat, raised at his place on the Cahnenga road. The grain is very large, plump, heavy and clean, and will compare favorably with the very best wheat in Californla. Mr. Weid planted abont 12 acres, slightly upland, with eight centals of seed, and has harvested 240 centals. This is at the rate of 33⅓ bushels to the acre. Mr. Weid assures us that this wheat will weigh about 30 pounds more to the sack than ordinary wheat. It is certainly a very superior quality.

Using the Waste Places.—Anaheim *Gazette*, Aug. 5: Even the alkali lands that are thought by many to be worthless, if properly managed, will yield enormous crops ot the mangel wurtzel, and there is no better feed to cause an abundant flow of rich milk than the beet, and they are also a positive benefit to the land, lessening the alkaline deposit with each crop. When we get our sandy soil planted out in grape and fruit, our heavier lands in corn and pumpkins, our alkaline spots sown in beets, our pastures well set in alfalfa and sheltered with double rows of eucalyptus and Monterey cypress, and our cheese and butter factory turning out gilt edged butter and choicest cheese, then we trust a little of the money will come in, instead of all going out, and the drudgery of the farmers will be lessened.

MARIN.

The Tomales Cheese Factory.—Petaluma *Argus:* This enterprise has assumed a new form in the way of ownerehip. A joint stock company was organized and incorporated on the 22d inst., and the following named gentlemen were elected as a board of directors: H. L. Dodge, of San Francisco; Jacob McReynolds, of Bloomfield; J. Knight, Jas. Whittaker and E. Harrold, of Tomales; A. F. Killam, of Petalnma; and John Giberson, of Two Rock. The Board organized by the election of James Whittaker, President; E. Harrold, Vice-President; Jacob McReyolds, Secretary; and T. J. Ahels, Treasurer. The factory will resume operations about the first of January.

MERCED.

A Pretty Rapid Story.—We noticed several acres of corn and potatoes just planted the day previons, and at a little distance a like crop that was being gathered daily for market, while melons of every variety—some of which we can vouch for as being delicions—onions, cabbages and other vegetables appeared to grow spontaneonsly. So remarkable is the producing quality of the soil, that corn planted two weeks ago stood two and a half feet high, and another patch just beginning to mature was fully 13 feet from root to tassel.

NAPA.

Grain Growers.—*Reporter*, Aug. 5: Mr. Abram Clark, of Berryessa, is not only our champion tax-payer, but is likewise our champion wheat raiser. The products of his Napa farms this year will reach 25,000 sacks, and at Colusa he will raise 80,000; in the aggregate, 105,000 sacks. Mr. David Emmerson, of Napa, has just returned from his Sacramento valley farm, and reporte the out-turn of crops very fine. He has 40,000 sacks of wheat threehed, and will make between 50,000 and 60,000 sacks—enough to load several ships, or freight 400 cars. John Finnell, of Yountville, on his Colnsa ranch grows this year 17,000 acres of wheat, aggregating a crop of about 200,000 sacks. He has, to carry off his crop alone, two steamers, with barges, constantly engaged running up and down the Sacramento river. These each make two trips a week, and carry 6,000 bags to the trip, or 24,000 bags a week between them. Yet with this vast moving facility, it will take two mouths or more to get the crop down the river.

PLACER.

Two New Driers.—*Herald*, July 29: Auburn and Ophir have each got a fruit-drier at last. Each of them is bnilt on a plan entirely original, and yet we have reasons for believing that each will prove a success. The Ophir dryer, the invention of Mr. W. Hathaway, a merchant of that town, is completed and in operation, and thus far has done its work with perfect satisfaction. Mr. Hathaway kindly furnishes us with samples of blackberries dried, respectively, by this machine and by the sun, both of which we had prepared for the table, and the difference in favor of those dried by the machine was as much as can well be imagined. The sun-dried fruit was hard, seedy and comparatively insipid, while that dried, or rather cnred by the machine, was brought back by soaking and stewing to nearly the original size, and was found to retain the juicy flavor of the fresh berry almost entire. It was indeed very splendid fruit, which to our notion cannot exactly be said of the berries dried in the sun. If it does as well on other fruits, and there is no reason to believe it will not, it is certainly a success. The drier referred to in Auburn is one just built after an original plan by A. Fougeron, on Barnhard's place, just above town. It has not been tried yet, though Mr. B. is quite confident that it will prove a success. Though both of these driers are the first of the kind ever erected, and are, therefore, somewhat experimental, they are both rather large, that at Ophir having a capacity of about half a ton of fresh fruit a day, when put to its best, and the one at Aubnrn being but little if any less. We shall embrace an opportunity hereafter to describe the plans of these driers more fnlly.

SAN JOAQUIN.

A New Arrangement.—Stockton *Independent*, Aug 4: The grain sack holder and truck, which the farmers of this vicinity are forming an association to buy, has been tested so thoroughly as to warrant the positive assertion that it will constantly fill five pounds more into each sack than by the ordinary method of filling. As a saving of sacks, therefore, it is worthy of careful consideration, as it will save to the farmer 40 sacks in every 1,000, or for the total crop of the State about 500,000 sacks would be saved each year by its use, equivalent to $60,000 for the whole State. Theee seem like large figures, but they are capable of demonstration on the basis we have given.

Tule Dams.—Mr. J. M. Fisher, who is now employed at fixing dams across the sloughs, in the tule lands, for Harris & Learned, has beeu engaged by Hon. R. C. Sargent to build a number of gates and dams on his estate, north of this city. The dams built by Mr. Fisher, of tule sod, are recognized by the best swamp land engineers as the most thorough and effective in the purpose for which they are designed, of anything of the kind that has ever been introdnced. None of his dams have given way in any part—every sod holding its place. In connection with this dam he builds a flood-gate, for the outlet of surplus water, which works to a charm.

Reclaiming.—Capt. Geo. W. Kidd is making preparation to commence constructing a reclamation levee, which shall include all of his tract of land on Union island, southwest of Stockton. The total distance round the tract is about 15 miles.

SANTA CLARA.

The Willow Grove Hops.—San Jose *Mercury*, Aug. 4: There are two "yards" in the Willows, one owned and cultivated by Isaac Bird & Sons, and the other, the Coe ranch, owned by the Odd Fellows' eavings bank, of San Francisco, and conducted by J. R. Jacobs, of this city. Mr. Bird has 40 acres under cultivation. On the adjoining tract (Jacobs') there are about 65 acres. The plants are doing splendidly, and more than an average yield is anticipated. Mr. Bird embarked in the hop business about 13 years ago, Mr. Coe following suit a year later. The soil is admirably adapted for hop raising, being light and sandy with black loam subsoil. No irrigating is done by Mr. Bird, but the growth is fostered by close cultivation. The plants were originally procured from the East—that is, the female plants, while the males were imported from Germany. The masculines are planted, one in every tenth row one way, and alternately the other, averaging about 60 to the acre. The plants are put into the ground eight feet apart. To each hill a redwood pole, nine feet in hight, is embedded, and running in both directions along the poles is etrung a cord, to which the vines are trained. After the plants are first placed in the earth it takes three years before an average yield can be expected. The second year there will be about a two thirds crop. The harvesting generally commences the first of September, but this year it will be a week or two later, as the growing blossoms were slightly checked by the toggy weather. When harveeting begins about 400 hands are employed at both yards. The hops that are picked in the morning are put in the kiln at noen and taken out at midnight, when the afternoon's picking is put in, and so on nntil the work is done, which usually takes about six weeks. The average yield is from 1,200 to 1,400 pounds per acre. The hops raised in the Willows have a higher reputation than those raised in other portions of the State, and rank with the best Eastern hops. Messrs. Bird & Jacobs, as heretofore, will ship the major portion of their crop to Eastern markets.

SANTA CRUZ.

Sale of the Soquel Beet Sugar Factory.—*Sentinel*, Aug. 5: The beet sugar refinery has been sold to San Francisco parties for $150,000. It is the intention of the new firm to enlarge Soquel by building 40 cottages, and the facilities of the refinery will be increased. One hundred and forty boys and girls are to be employed.

Threshing—*Courier*, Aug. 4: A gentlemen engaged in threshing in the Salinas valley says that the whole valley is a mass of excellent grain; that there are now 30 steam threshers in that valley, and as it requires 22 men to each thresher, there are upwards of 600 men engaged in threshing the crop.

Shipping Cattle to China.—*Pajaronian*, Aug 3: Mr. W. B. Gaffey, of this valley, shipped on the 20th ult., 20 cows to China. Among the number was one that was owned as a calf by P. J. Kelley in 1850. Although the animal was old, 26 years, the day she left the Washington hotel, she donated from her liberal resources, *three* buckets of milk! Mr. Gaffey has been engaged for some time in exporting cows to the Asiatic countries, always selecting the best that can be found.

SAN DIEGO.

Association Organized.—*Union*, Aug 3: The San Diego county beekeepers' association was finally organized on Wednesday evening. The following officers were chosen for the first year, ending February 1st, 1877: E. W. Morse, President; C. J. Fox, Vice President; R. G. Balcom, Secretary; A Mitchell, Treasurer. Directors—C. J. Fox, J. Sanders, A. Mitchell, E. W. Morso, J. N. Randolph, Robert Rea, S. G. Blaisdell, R. G. Balcom, E. J. Rhodes. The objects of the assooiation are "To promote among the members a knowledge of bee culture; to extend and improve the market for honey; to systematize and cheapen transportation; to establish and maintain grades and trade marks that shall be considered reliable; to prevent diseases among bees, and introduce remedies and enforce their use when necessary; to provide safe storage and careful shipment of the crops, and such other objects as may be found useful."

Fall Clip.—The fall olip of wool is beginning to come in at San Diego. Forty bales were received Saturday.

SAN LUIS OBISPO.

Big Cabbage.—*Tribune*, July 27: Mr. J. M. Hartmann, who lives near the head of the Morro bay, brought into our office, on Tuesday, a cabbage head that weighed 18⅛ pounds, cleaned from all extraneous leaves and matter. This is a sample of his early crop, of which he has between 2,000 and 3,000, though not all of this mammoth size. He has of late crop about 8,000 plants growing. He finds market for the presen crop east of the mountains, where he gets one and a half cents per pound for them.

SONOMA.

The Potato Crop.—Petaluma *Argus*, Ang. 4: It is the opinion of all old resident farmers in this vicinity with whom we have conversed upon the subject, and we have talked with a good many of them, that the area planted with potatoes in Sonoma and Marin counties this year is a good deal larger than ever before. Opinions differ largely as to the probable yield per acre. A few think it will be larger than usual, others that it will be about an average, and much the largest number that the yield will be light. In some placee the appearances are undoubtedly very promising while in others, owing to the extremely hot weather immediately after planting, the tubers did not sprout, and consequently upon a good deal of the land nothing will be produced. There are no signs of blight anywhere, and the damage by grasshoppers and bugs amounts to but little.

Hay at Healdsburg—*Flag:* Hay is arriving in town in large quantities daily, and the amount at present stored in this city is nearly 3,000 tons. Prices range very low, first-class baled hay bringing only $9.50 per ton, and inferior qualities $7 to $9.

Redwood Sprouts.—In the redwoods near Du con's mill, are two or three redwood trees standing close together, which throw up from their roots sprouts of a rare and peculiar nature. There is nothing of the kind known to exist elsewhere, at least by anyone yet heard from. The extraordinary feature of these sprouts is that they bear only pure white leaves, and these of a beautiful waxen appearance Some might suppose that they grew in the deep shade, but we are informed that the situation of their growth does not differ from that of the ordinary sprout. We are indebted to R v. R. McCulloch for epecimens, and they can be seen at the *Flag* office by the curious.

Meeting of Grape Growers.—*Democrat*, Ang. 5: At a meeting of a few of the vineyard proprietors of Sonoma county, held at the Occidental hotel, Santa Rosa, on Saturday, the 29th inst., it was unanimously resolved to call a general meeting of all the vineyard proprietors of this county to be held at the court house, on Saturday, August 5th, at 2 o'clock, P. M. The purpose of the meeting is to consider the advisability of incorporating a joint stock company for the purpose of building a manufactory and making wine from our present and future grape crops. The success of such an important enterprise would result in great good, and we are glad to see that Messrs. Adams, Knapp, Peugh, Hood, Boyce, Anderson, Meyers and Taylor, have taken hold of the good work in earnest.

TULARE.

Good Late Grain.—*Della*, Aug. 3: Mr. Kerr, of Lakeside, sowed a field of 60 acres to wheat the 15th day of March, which he harvested on the 16th day of June, and realized 30 bushels to the acre without irrigation. This is about as good a turn out of late grain as we ever heard of in this county.

Arizona.

A Pavement of Melons.—*Miner*, July 28: Phœnix valley is literally paved with melons. No country in the world can raise bigger and better watermelons than this valley. I saw two or three weighed this week, but withhold the figures for reputation's sake, for if I should inform your readers that we raise watermelons in Salt River valley, which weigh upwards of 60 pounds, they might look with discredit on my statements concerning other matters. Grapes of excellent quality have been in the market for several days. Geo. A. Roberts and G. A. Wilson are the principal viniculturists of the valley, each of them having several acres in vines, and consider it the best use to which they could put their lands.

Idaho.

Fruit.—*Statesman*, Aug. 1: Gen. Carter has put up over 5,000 cans of fruit this season. He has acres of blackberries yet, and will have tons of grapes. The fruit crop this year will be immense. Everywhere about Boise city and environs the trees are loaded to the ground with fruit, and only are kept from breaking by being propped and tied in every conceivable manner.

Nevada.

Crickets.—Pioche *Record:* Crickets are playing havoc with the crops in Ball Run valley, Elko county. In some instances entire crops have been destroyed.

Army Worms.—*Enterprise:* Myriads of army worms are devastating Pleasant valley, which is situated between Steamboat Springs and Washoe City. Their line of march is in a southerly direction. Mr. Huffaker tried to drown some of the varmints, but after being immersed in the water for 20 minutes he found them as lively as ever. It is believed that the worms will inflict great damage upon the second crop of alfalfa, the first having already been taken care of The hay and grain crop in Washoe valley will be about an average one this year. The farmers are engaged at present in harvesting their wintor wheat and barley.



Hold the Plow and Wield the Spade.

Birds that nestle in the bough
Are with Nature's treasures fed.
But with sweat upon his brow
Man shall ever eat his bread.
Want will idle homes invade—
Hold the plow and wield the spade.

Happy hearts and blooming health
Follow labor and repose.
And the stream of honest wealth
In their silver channel flows.
Gentlemen of every shade
Find it in the plow and spade.

Men of truth, and men of might:
Men who will their living earn;
Men who love and do the right;
Men who never labor spurn.
These enduring worth have made.
Hold the plow and wield the spade.

Nature never was designed
Drones to nourish and to keep.
Busy hands and active mind,
These the fruits of labor reap.
Life demands our every aid;
Hold the plow and wield the spade.

—*Inter Ocean.*

Whom We Meet.

[Written for the PRESS by JOHN TAYLOR.]

Day by day we raise the curtain of life, performing new labor in inventions or for production. We also greet old and new familiar and unfamiliar faces. Some hands receiving the cordial fraternal clasp, or slightly touching to be withdrawn, as if the contact contained contagion. Day after day the same changing routine continues, until the scene changes. The curtain is dropped, and we are hidden away beneath the flowering sod. But the same meetings and greetings go on from day to day—and year to year, working out the problems of eternity, with only the present *now* to work upon. Throughout the changes of a happy life we may steal a few moments for reflection, recalling the friends of long ago. The features we scanned but yesterday; the inroads of time upon the face divine; the causes of sorrow and premature decay. Again the bloom of health, happiness and wealth flits across your path, like a sunbeam on a gloomy day. Anon a merry group of children command your attention. Eden's brightness beaming on countenances unstained by contact with life's care and trouble. Such a sight lingers long on the mind's mirror, reflecting the purity purified, and ennobling all within their charming sphere. There is still a fairer picture in the innocent unrsiug babe, pure from its infinite father's hand. "Of such is the kingdom of heaven," was the language of "the meek and lowly one," and echoed all adown the ages. And as we gaze upon some lovely bud of future promise, we feel as if we could raise a perpetual monument to earth's fairest human flower.

Must my pen follow some of those immor'al buds from Eden's lovely bowers, to find them in the darkest slums of moral depravity and outward wretchedness? Ah, it must be so; for these lines were inspired just by such a sight. Twenty-four years ago, I knew a young woman of unusual brightness; a husband and son to labor for in a clean, tidy, but humble cottage; a ready hand and willing heart to do a kindly act; her eyes sparkled with rich humor and wit; everything in appearance and surroundings betokened thrift and an able housekeeper; activity and the wealth of health gave appearance of a long lease of life and and a happy end.

Time on its wings eternally rolls around. At the end of 24 years our attention is attracted to an old, lame woman, with staff in hand and alcohol in the brain, intently scanning our features as of some almost forgotten memory. In a moment her hand was outstretched and her eyes filled with tears. The past picture of the long ago choking the burdened heart. Nothing seemed familiar but the sparkle of her eyes. Memory also being busy amongst the pages of the past. The silent language of the heart was weeping for the tearful wreck of a bright womanhood which stood before me. I could trace away backward the different stages, marking the life-line of one so gifted by nature and circumstances, to the saddened picture, enough to make angels weep and man too. But to such — the scorn and scowl, the cold shoulder and social banishment is too often practised towards the unfortunate, especially if it is a *sister* offending. 'Samaritans" are not very plentiful amongst the world's throng, except when money may be realized under the cloak of attentions bestowed. 'Tis the old story. Husband gone; son gone; perhaps driven from home and its sacred ties, because of the rum fiend. Alone now with poverty and old age, and an appetite growing the stronger from each supply.

Man, born in the image of his God, an heir to immortal life and the glories of heaven, and yet writing a record in his book of life, blurred by the darkness of hell, by vending fire water to such a one as I have been truthfully depicting.

Sin and suffer is God's command. Surely, those who knowingly assist in smashing the home altar into shreds, firing the brain by poisonous beverages for the love of bodily ease and gain, cannot believe in the law of Divine justice.

"Why do you converse with a drunken woman on the street?" was the remark of an innocent eighteen-summer maiden.

"Did you ever read of the good Jesus being ashamed to recognize the fallen? Did he not come to save the sinner, etc," was my answer. Ah sisters! fewer degraded sisters would appear on our streets if the true spirit of Christianity had a place in your affections.

The above was a meeting and a greeting with a sister, only yesterday. A few minutes later and I stood by the bedside of a brother. It was morning—the sun beaming in splendor amongst the foot-hills of the Sierras—a fond husband kissed a good-bye to his beautiful and dutiful wife. Only for a few days absence on business. Towards night the clouds were gathering for a storm, and the shadows were creeping into the heart of the busy matron, as she pictured the return of the loved one. Soon, too soon—a wagon drew up to the gate with a ghastly occupant lying in the bottom, unconscious of all surroundings. Soon the young wife was apprised of the reality. Whisky! O though fiend of infernal regions! how we prayed in the presence of manhood, shorn of his glory, for thy destruction. The bar keeper's bludgeon has given thee one eye the less, and a lingering time for recuperation.

Flitting to and fro was the loved one, weeping, hoping and praying for rum's judgment days. O God! may America's next Centennial witness a people free from a worse king than ever sat on golden throne! My heart sickened at the sight of so much misery within such a small compass. What others saw and felt I know not, but time must make a fearful record against rum's doings. Well is it for those who have washed their hands pure and clean from the pollution.

What I have written only occupied my attention one hour. To give you a history of what and whom we meet with, even for one day, would occupy your whole paper. Thank God that we have the privilege of meeting with many noble men and women, the sunshine of whose countenance fills the soul with etherial radiance.

Rules for Home Education.

The following rules are worthy of being printed in letters of gold and being placed in a conspicuous place in every household:

1. From your children's earliest infancy, inculcate the necessity of instant obedience.

2. Unite firmness with gentleness. Let your children always understand you mean what you say.

3. Never promise them unless you are quite sure you can give them what you say.

4. If you tell a child to do some hing, show him how to do it, and see that it is done.

5 Always punish your children for willfully disobeying you but never punish them in anger.

6. Never let them perceive that they vex you or make you lose your command.

7. If they give way to petulence or ill temper wait till they are calm, and then gently reason with them on the impropriety of their conduct.

8. Remember a little present punishment when the occasion arises is more effectual than the threatening of a greater punishment should the fault be renewed.

9. Never give your children anything because they cry for it.

10. On no account allow them to do at any one time what you have forbidden, under the same circumstances, at another.

11. Teach them that the only way to appear good is to be good.

12. Accustom them to make their little recitals with perfect truth.

13. Never allow of tale-bearing.

14. Teach them self denial, not self indulgence, of an angry and resentful spirit.

THE WOMAN'S HOTEL.—The portion of Mr. Stewart's will relating to the erection of a woman's hotel in New York, city is now being carried rapidly into effect, and the building will be ready for occupancy next spring. It has 500 rooms, and Judge Hilton has already ordered 300 black walnut suits of furniture to be placed in the building. Mr. Stewart laid strict injunctions that the title was to be the "Woman's hotel," and that the name of Stewart should not at all be mentioned in the title. Every room will have a plain bedstead, washstand, bureau, steam, gas, and a closet. It is the intention of Judge Hilton to have the hotel managed in such a way that meals of the best quality will be furnished at cost price, 15 cents each, making 45 cents a day for three meals. The kitchen will be one of the finest in the United States, and the Woman's hotel will in other ways be worthy of its founder.

FEELINGS are like chemicals; the more you analyze them the worse they smell. So it is best not to stir them up very much—only enough to convince one's self that they are offensively wrong, and then look away as far as possible out of one'aself for a purifying power; and that we know can only come from Him who holds our hearts in His hands, and can turn us whither He will.—*Chas. Kingsley.*

Baby Belongings.

Fortunately for the children, it is still the fashion for babies to wear dresses high in the neck and long in the sleeve. These are made with a yoke, or cut sacque fashion, and with every degree of ornament—from a simple edge round neck and sleeves to the most elaborate insertions and embroidery. Many mothers put their infants from the beginning into short clothes; that is, make their skirts half a yard in length, so that when the child can walk the dress will nearly touch the floor. This mode has very much to recommend it. Aside from economy of material and laundry work, it gives the baby the use of its limbs from the beginning, so that it helps itself much sooner than when its feet are tied up with a profusion of clothes; almost everybody knows how much more easily a child in short clothes is tended than one in long clothes.

The extent of an infant's wardrobe depends very much on the means of it's parents, but for comfort there should be provided two flannel foot-blankets, three quarters of a yard in length and laid in plaits at one end for five inches, so as to form a waist; they are composed of a single breadth fastened in front, and left open all the way down; two flannel skirts half a yard long, with bands of linen or cotton; six little dresses of dimity, nainsook or crossbarred muslin. Jaconet does not wash or keep snowy as readily as the materials named. There must be two flannel night wraps, two or three calico double wrappers, and two blankets of fine all-wool flannel a yard square; two or three dozen Russia napkins, twice their width in length, and hemmed at each end; a red or blue riding hood of flannel or all-wool delaines, lined with flannel, for baby to take its airings in; two or three sacques of lint goods or opera flannel; socks, or shoes and stockings, if the baby is in short clothes. A couple of knit zephyr shirts and as many flannel bands complete the wardrobe. A basket should be set apart for the baby's use in which everything needed in making its toilet, starch bag, soap, brush and comb, sponge and towel, has its appropriate place. Over this the clothes may be laid at night, and there will be no hunting about to get things together for the morning bath. There should be no pins but safety pins used about a baby. For the belly-band make an oval of flannel 25 inches in length and seven in width. Tapes 12 inches long and three quarters of an inch wide are attached to each end; 7½ inches from one end is an opening up and down, four inches in length, through which the tape at the other extremity of the oval is drawn. For skirt bands make the same shape, but wider; cut out the arm holes and sew on strips of wide tape for straps. The points cross in the band behind, in the skirt in front. When the baby is a month old the band can be dispensed with. Little folk of the human kind no more need bandaging tightly about the waist than do little calves or little pigs. Plenty of sleep, plenty of food, plenty of flannel are the three requisites of babyhood. If the mother or nurse will wear a white apron while tending the child, its clothes will be kept clean. A slip ought to last two days without change.

A baby is but a bundle of habits, and may be so managed as to perform all its functions with perfect regularity. If the mother will, she can accustom it to sleep from six at night to six in the morning, with only brief intervals of waking to take food. This habit formed gives the mother rest in the evening after the care of the baby during the day—rest which she greatly needs. To aid the child in forming the habit, let it be kept awake and given suitable exercise in the latter part of the day so that it will of itself go to sleep at nightfall. From the time a child is three months old it should be accustomed to take an airing every day. As many babies die from want of fresh air as from exposure to it. Many a fond mother fancies that by keeping her child shut up carefully in a warm room she is shielding it from sickness, when in reality she is rendering it so tender, so incapable of resistance to cold, that the slightest change of temperature will give it croup or congestion and lay it away. There is no medicine for a teething child to be compared to the open air. Children well clothed and well fed that are kept out of doors much of the time while this process is going on suffer comparatively little from it.—*N. Y. Tribune.*

A STRANGE FRIENDSHIP.—A strange friendship has sprung up between two very dissimilar animals at Mrs Stratton's place, in town here. A black rabbit came to the place some three months ago and took up its abode. Mrs. S. keeps on the place a couple of cows, and a short time since the rabbit took up the strange habit of sleeping with one of the cows. It goes out to the cow's wouted place of rest, waits her coming, and when arrived the motherly "bos" licks the little protege with much the same affectionate tenderness that would be bestowed on a calf, the rough tongue and tremendous licks nearly raising the little animal off its feet, and it the meanwhile bracing itself with all its four feet spread to withstand the pressure. Then little "bunny" puts its little nose up to the cow'a nose and appears to kiss it, all of which silly demonstrations gone through with the rabbit nestles up to old "bos" and goes to sleep. It is a singular "bedfellowing," the tiny bundle of fur and ears of perhaps three or four pounds with the unwieldy carcase of 600, and should the superior animal haplessly wag her chin or flop her tail ungnardedly, the little friend must undoubtedly be wiped ont of existence. As yet, however, there is peace in the family, and everything is lovely.—*St. Helena Star.*

Do What You Can.

"The woods would be very silent if no birds sang there but those that sang best."

I know not who said those beautiful words, but I may be safe to say it was no great man. Not what the world calls great, not learned, not rich, but whosoever placed them upon paper to be read by its struggling thousands, gave a sermon in the plainest, truest, yet grandest way it could be told.

I know how anxious every one feels to do his best—to be first. Well, you may do your best. But if your talent will not bring you a hundred fold, be content by its doubling. Rather be proud that you can look back and say, "that is as well again as I once did." If you are capable of no more, why bemoan your own fate because others have outstripped you? Do you gain by complaining, or by silence? Can you lose by trying again? How many churches would be vacant if every preacher should say, "I will not preach unless I can have my church filled like Beecher or Spurgeon." If none went abroad but the Moodys and Sankeys, how many places would be unfruitful. Ah! the churches would be very silent if none preached but those who preached best! To be first or nothing is a poor saying by which to live. No one expects you to give your first speech like a Wilberforce. Everybody knows you have not the head of Daniel Webster—they only think it is very well for you, John Smith. It need not cool your ardor to be thus spoken of. It helps to make a comparison between the poorer and the better. Very rarely would the world look upon pictures or works of art, if none sat at the easel or held the chisel but the world's great masters. What would you be—what would the world be, if none struggled to be heard? Because you can not pipe so long or so loud as a stronger or bolder brother, need you try on that instrument? You may make a clearer and sweeter strain on some other one. The world does not measure all beauties or talents alike. If one thinks the whip-poor-will the best singer of the wood, would he care to have that bird under his window always? His neighbor might like the robin best, then who is to be judge between the two. Should one bird stop singing because some other can be heard the farthest? No; use what talents you possess. See not smiles or frowns, hear not the jeers or envious remarks, heed not the prophetic sayings of your future, and never mind if you do not do as well as the best. Keep doing—sculpture or paint, study or play, sing, speak or write, and if you do not stand first, remember that the wood would be very silent if no birds sang but those that sang best.—*Phren. Journal.*

THE ROAD TO SUCCESS.—"What is your secret?" asked a lady of Turner, the distinguished painter. He replied, "I have no secret, madam, but hard work." Says Doctor Arnold: "The difference between one man and another is not so much in talent as in energy." "Nothing," says Reynolds, "is denied well directed labor, and nothing is to be attained without it." "Excellence in any department," says Johnson, "can now be obtained by the labor of a lifetime, but is not to purchased at a lesser price." "There is but one method," says Sidney Smith, "and that is hard labor; and a man who will not pay that price for distinction had better at once dedicate himself to the pursuit of the fox." "Step by step," reads the French proverb, "one goes very far." "Nothing," says Mirabeau, "is impossible to the man who will. This is the only law of success." "Have you ever entered a cottage, ever traveled in a coach, ever talked with a peasant in the field, or loitered with a mechanic at the loom," asked Sir Edward Bulwer Lytton, and not found that each of these men had a talent you had not, knew something you knew not?" The most useless creature that ever yawned at a club, or idled in rags under the sun of Calabria, has no excuse for want of intellect. What men want is, not intelleot. What men want is, not talent, but purpose; in other words, not the power to achieve, but the will to labor.

CENTENARIAN BIRDS.—It may not be generally known, says the Wexford *Independent*, that the eagle, raven, and parrot are each centenarians. An eagle kept in Vienna died after a confinement of 114 years; and in a ancient oak still known as the raven tree, the same pair of ravens are believed to have fixed their residence for a series of more than 90 years. Swans upon the river Thames, about whose age there can be no mistake—since they are annually marked by the Vintner's company, under whose keeping they have been for five centuries—have been known to survive 150 years and more. The melody of the dying swan is mythological. Upon approach of death the bird quits the water, sits down upon the bank, lays its head upon the ground, expands its wings a trifle, and expires, uttering no sound.

THE MOTHER OF TWINS IN A QUANDARY.—The mother of two sons, met one of the brothers in a field one morning. "Which of you two boys am I speaking to?" asked the mother; "is it you or your brother?" "Why do you ask?" inquired the lad prudently. "Because if its your brother, I will box his ears," answered the mother. "It is not my brother, it is I," said the boy. "Then your brother is wearing your coat, for yours had a hole in." "No mother, I am wearing my own coat." "Good heavens!" cried the mother, looking at him intently, you are your brother after all!" —*Citizen.*

Mr. Ruskin on Female Attire.

In a late number of *Fors Clavigera*, Mr. Ruskin advises his girl readers as follows: "Dress as plainly as your parents will allow you, but in bright colors (if they become you) and in the best materials—that is to say, in those which wear longest. When you are really in want of a new dress, buy it (or make it) in the fashion; but never knit an old one merely because it has become unfashionable. And if the fashion be costly, you must not follow it. You may wear broad stripes or narrow, bright colors or dark, short petticoats or long (in moderation), as the public wish you; but you must not buy yards of useless stuff to make a knot or a flounce of, nor drag them behind you over the ground. And your walking dress must never touch the ground at all. I have lost much of the faith I once had in the common sense and even in the personal delicacy of the present race of average English women, by seeing how they will allow their dresses to sweep the streets, as it is the fashion to be scavengers. If you can afford it, get your dresses made by a good dressmaker, with the most attainable precision and perfection; but let this dressmaker be a poor person living in the country, not a rich person living in a large house in London. Learn dressmaking yourself, with pains and time, and use a part of every day in needle work, making as pretty dresses as you can for poor people who have not time nor taste to make them nicely for themselves. You are to show them in your own wearing what is most right and graceful, and to help them to choose what will be prettiest and most becoming in their own station. If they see you never try to dress above yours, they will not try to dress above theirs."

Benjamin Franklin's Reasons for Recommending the Use of Bows and Arrows in War.—A very small blue book was published in New York over 50 years ago, called: "The Life and Essays of Benjamin Franklin, written by himself." One of the essays is a letter to Major Gen. Lee, and in it Mr. Franklin says some things that will interest you in this Centennial year. Remember that B. F. alludes to the fire arms of 1776:

They still talk big in England, and threaten hard; but their language is somewhat civiller, at least not quite so disrespectful to us. By degrees they come to their senses, but too late, I fancy, for their interest.

We have got a large quantity of saltpetre, 120 tons, and 30 more expected. Powder mills are now wanting; I believe we must set to work and make it by hand. But I still wish, with you, that pikes could be introduced, and I would add bows and arrows; these were good weapons, and not wisely laid aside:

1. Because a man may shoot as truly with a bow as with a common musket.

2. He can discharge four arrows in the time of charging and discharging one bullet.

3. His object is not taken from his view by the smoke of his own side.

4. A flight of arrows seen coming upon them terrifies and disturbs the enemy's attention to his business.

5. An arrow sticking in any part of a man, puts him *hors du combat* till it is extracted.

6. Bows and arrows are more easily provided everywhere than muskets and ammunition. —*St. Nicholas.*

Woman's Wounded Affections.—Washington Irving wrote: "As the dove will clap its wings to its sides and cover and conceal the arrow that is praying on its vitals, so it is the nature of woman to hide from the world the pangs of wounded affection. With her the desire of the heart has failed. The great charm of existence is at an end. She neglects all the cheerful exercises that gladden the spirits, quicken the pulse and send the tide of life in healthful currents through the veins. Her rest is broken; the sweet refreshment of sleep is poisoned by melancholy dreams; 'dry sorrow drinks her blood,' until her feeble frame sinks under the last external assailant. Look for her after a little while and you find friendship weeping over her untimely grave wondering that one who had but lately glowed with all the radiance of health and beauty should now be brought down to 'darkness and the worm.' You will be told of some wintery chill, some slight indisposition that laid her low; but no one knows the mental malady that previously sapped her strength and made her so easy a prey to the spoiler."

Too Late for the Boat.—The woman who arrived at the wharf just as the excursion boat had a start of ten feet didn't comprehend the situation for a moment. She didn't know but that the boats had a habit of starting off and backing up to keep the machinery from getting rusty. When she realized that she was being left, she jabbed a man in the back with her elbow, knocked a hat off with her parasol, and squealed at the top of her voice: "Hold on there—you haven't got me!" "Make a jump!" screamed one boy; "Swim for it!" called out another; while the "left woman" fiercely shouted: "Why don't some of you folks up there tell the Captain?" The people on the upper deck replied by laughing and waving their handkerchiefs. The woman on the wharf recognized only one among the crowd, and, pointing her parasol directly at her and holding it extended, as if taking aim, she shouted: "You want to understand, Mrs. Baker, that you can never, never borrow any more butter or flat-irons of me!"—*Detroit Press.*

Young Folks' Column.

Trust in Mother.

Little daughters full of glee,
Bright and happy, fair and free,
Trust in mother.
You will never find another
Like this one so good and true,
And so faithful unto you—
Trust in mother.

Tell her all your childish woes,
For a precious balm she knows—
Sweet and healing;
And her kiss is warm with feeling;
Blessed kiss that never cloys—
All your happy childish joys
Too revealing.

Maiden daughter blooming fair,
With your opening charms so rare,
Trust in mother.
She'll advise you like no other;
Lock no secret in your breast,
Share with her who loves you best—
Trust in mother.

Growing sons, our hope and pride,
You, too, need a patient guide,
Trust in mother.
Not an aspiration smother,
Not a folly fail to tell,
Her sweet counsel worketh well—
Trust in mother.

Girls and boys wher'er you stand,
Scattered throughout our beauteous land,
Trust in mother.
She'll advise you like no other;
Loving sires you may possess,
But for thoughtful tenderness,
Trust in mother.

—*N. Y. Ledger.*

A Pet Turtle.

A lady, writing to the *Arcadian*, relates the following regarding one of the oddest pets that ever existed, and which belonged to a little girl of her acqnaintance: A visitor met this little girl at the gate last summer with what she supposed was a lunch box under her arm. To the lady's surprise a snake-like head ran out a little way from the lunch box, and the pet turned out to be a common mud turtle. Some one had brought the creature home a year or so before and let it loose in the garden.

When the children began to play there, out from its hole came the turtle, and singling out this child gave evidence of intelligence beyond belief.

The turtle was called Pedro, and the little girl had but to call that name two or three times at the back door to see the old box waddling up from the bottom of the garden directly. Any one else approaching or attempting familiarities, the clumsy feet were drawn promptly in and the wise old head retired within its shell, and no sign of life would Pedro give.

But let the child take it, the claws closed round one of her fingers, and the head, run out to its fullest extent of the neck, would be waggled against her with every token of love a turtle could give.

There came a time during the summer when the little mistress was sick. The mother, sitting in the dusk, thought she saw a dark object moving in the room, and shortly after, hearing a bumping on the stairs, went out and found out it was Pedro returning to his hole in the yard.

Each day for weeks, with the opening of the outside door, in would walk Pedro. The girl generally found him waiting on the steps.

He would go to the stairs, stand upright in a corner, and setting his little feet into the stair above, pull himself up. This operation he would repeat until he reached the landing. If the door into the sick child's room was closed he waited patiently to be allowed to enter.

When taken up and laid beside its mistress it made no effort to move, but lay for hours with its solemn head wagging from side to side.

At night it waddled off to the stairs, and then the racket commenced. As it fell off each step in clumsy fashion it sounded like that famous clock in the Ingolsby legends that went hopping after Mr. Ap. Jones.

Boys For Jewels.—The Roman matron, pointing to her sons, said: "These are my jewels." Every parent should take pride in doing the same. But the sons should be worthy of this distinction; and it is the duty of the parent to do all in his power to make his sons intelligent, moral and worthy citizens—fit for any position in a free country. It is true this is a difficult task; easy enough, perhaps, with some children, but very difficult with others. It requires tact, patience, judgment, to accomplish the work; but with proper encouragement it can be done. Boys, too, should strive to make themselves worthy of the respect and esteem of all who know them. They should associate with the wise and good, and avoid the company of the immoral and unworthy. They should improve their spare moments in reading good books and papers, and in acquiring valuable knowledge. They can thus make themselves worthy of being called jewels in the true meaning of the Roman mother —*Rural World.*

Never harbor animosity toward a friend for a mere hasty expression. Forgiveness is a God-like quality, and a true friend is so scarce that he should not be repudiated on slight grounds; but those who injure you from "malice prepense" should be shunned as you would avoid a tiger.

Good Health.

How to Cure Cuts and Stings.

We find in the *Prairie Farmer* some hints concerning treatment of small wounds. In every home there ought to be a place known to all the members of the household, but out of reach of the children, set apart for things which are likely to be wanted in case of accident. These should include a pair of good scissors, three or four large needles, ready threaded, some broad tape, a little lint, a roll of clean old linen, flannel and calico, part of each of which should be torn into slips, some sticking plaster, goldbeater's skin, turpentine, lunar caustic (nitrate of silver), tincture of arnica, and tincture of calendula. The possession of these articles will enable any one who can act with self possession and nerve to deal promptly and wisely with most of the every-day accidents to which flesh is liable.

Cuts

Cuts require to be treated suitably according to their position and character. A cut finger is best tied up in a rag with the blood; for blood is very healing. If a cut has any foreign substance, such as glass, gravel or dirt in it, this should be removed by being bathed in lukewarm water before the rag is put on. If a cut is severe, the blood should be examined. If it is dark, and oozes slowly from the wound, it comes from a vein, and is not serious, if it is bright scarlet, and spurts out of the cut like water from a fountain, it comes from an artery, and a docter ought at once to be sent for. Until medical aid can be procured, the wound should be tightly bound, and the artery should be tightly pressed above the wound and nearer the heart. If the skin gaps from the cut, the edges should at once be brought to their proper position with calendula plaster. If in a little time it begins to throb, the plaster should be removed, and the rag moistened with calendulated water; it is most useful for wounds where the flesh is deeply cut or torn. If a little lint is soaked in it and put upon the wound, it will in nine cases out of ten prove most beneficial. It is made by mixing thirty drops of the pure tincture of calendula, which may be bought of any chemist, with a half tumblerful of water. A cut on the head requires great care. The hair should be cut all round the place, and lint dipped in calendulated water be laid upon it. As long as the first dressing of a cut remains mains firm and gives no pain, it need not be touched.

Stings from Insects.

After being stung by a wasp or bee, the first thing to be done is to remove the sting. This may be done with a pair of small tweezers, or the sides of the wound pressed with a small key, so it may be squeezed out. Then apply to it immediately spirits of camphor, sal volatile, or turpentine, or failing these, rub it with a little common salt, or a little moist tobacco or snuff. If a wasp or a bee stings the throat, a little turpentine should be immediately swallowed. If the place swells very much and looks inflamed, it should be bathed with arnica, or have a hot white-bread poultice laid upon it. The arnica may be made by mixing twenty drops of the pure tincture with half a tumblerful of water.

Cultivating the Appetite.—There are few housekeepers who are not at one time or another perplexed beyond measure to provide acceptible food for guests. One does not eat butter, another declines potatoes, still another refuses mutton, a fourth cares nothing for fish, a fifth eschews pastry, and the hostess can but suffer mortification and annoyance in seeing one dish after another that has been prepared with care refused without good cause. A very polite principal of a young ladies' school was in the habit of frequently saying at meal times: "It is aristocratic to eat lamb; all my young ladies eat lamb." As a matter of fact, it was the most healthful and the most expensive meat he could procure at certain seasons of the year, and he considered it an important part of their education that his pupils should learn to like all varieties of wholesome food. These were accordingly provided, and the best of dietetic habits formed. His example is certainly a good one for heads of families to follow in training children. Various circumstances often restrict diet to half a dozen articles of food, and if these some are rejected from mere caprice, serious inconviences often follow, while only pleasure and advantage result from a genuine liking, though it be the offspring of cultivation, for all kinds of nutritious and wholesome food.

Bathing.—Cold baths, if taken at all, should be taken in the morning, when the body is invigorated by a night's rest; and then it is well to use water that is of the same temperature as the air, and not freshly drawn from well or cistern. Baths taken at night should be of about the same temperature as the body, and warmer, if they give the slightest chilly feeling.

Onions for Children.—A mother writes: Once a week invariably I gave the children a dinner which was hailed with delight; this was a dish of boiled onions. The little things knew not that they were taking the best of medicine for expelling what most children suffer from, worms. I believe mine were kept free by this remedy alone.

Domestic Economy.

Canning Fruit.

The canning season is at its hight, both in the large establishments and in a thousand rural homes. Doubtless a few hints on canning will be interesting, either for their direct recommendation or as suggestive. We compile, from a lady writer in the *Farmers' Stock Journal*, the following:

The Process.

Cleanse the cans thoroughly and test them to ascertain if they leak or are cracked. If any of the tin cans leak repair them or send them to the tinner for repairs. If glass cans are defective do not use them for canning, but keep them for storing things in the pantry. When the cans have been cleansed, put warm water in them in a dishpan; just before canning have ready another pan of water quite hot, and put in two or three cans that have already warmed in water; take out as you are ready to fill with fruit and stand them upon a hot platter while filling them; the platter keeps the jars from coming in contact with a cold surface like the table, and catches what fruit may drop in filling.

Look over the fruit carefully, and if it has pits, remove them, leaving only a few to lighten the flavor. For a can of cherries leave in about a dozen pits, for peaches one or two. Use a porcelain kettle for cooking the fruit and only enough sugar to render it palatable. If fruit is made very sweet, it is unhealthy, indigestible and expensive. It is the pleasant, natural acid of the fruit which our systems require, and sugar spoils it all.

Strawberries—Place in the kettle a teacupful of water, and two of sugar, let it boil, add three or four quarts of berries, do not stir them; when the berries are well scalded, skim out into two jars, let the juice boil briskly for a moment, then fill the jars with it, and seal them securely. If any juice is left it will take the place of water in preparing for the next two cans; if not enough to fill the jars, fill one and seal it, and leave the fruit in the other until a second quantity is prepared.

Peaches should be canned by the same method but in preparing them remember if they are quite ripe the skin can be removed without using a knife, simply by pouring boiling water over them same as with tomatoes, then cut in halves, and remove the pits. Perhaps more water might be put in to form the syrup than used with strawberries.

Cherries should cook three minutes at least, and more if the form is not injured by it. Make a syrup for them same as with other fruits, and observe same process in canning.

Raspberries, same as strawberries; be sure that they are heated to good boiling temperature; if cooked too long they will be hard and undesirable. One can hardly time the cooking for others, because so much depends upon the intensity of the fire; a hot, steady fire as for ironing is the best. Fruit ought to cook quickly; a slow fire consumes time, rendors the fruit hard, and drives off in steam all the delicate flavor which it is desirable to preserve.

Blackberries should be canned the same as raspberries.

Gooseberries and enrrants require more sugar and perhaps more cooking. The gooseberries should be well done, so that the skins may be tender, and they will admit of more than twice the water that is used with strawberries.

Plums same as peaches, only they will need to be pared with a knife. However, we have so few cultivated plums that a method of preparing the wild ones, or of making that famous plum butter that our old settlers had to depend upon for every occasion, would be in order, and we call on them for the modus operandi. Now, good pioneer mothers, let us hear from you.

Tomatoes should be nicely pared by scalding first, then slipping the skins off; place in a large porcelain kettle or a tin wash boiler, never in copper or iron, squeeze out enough juice to wet the bottom of the kettle, and thus prevent their scorching, but no water should be added to them; there is enough of the juice; boil briskly for five or six minutes until they are thoroughly heated, and seal in tin cans. A bushel of good tomatoes will make about sixteen quart cans when cooked.

Tin cans can be

Securely Sealed

With the prepared sealing-wax found at all drug stores, and is by most preferred to solder. It can be saved when the can is opened and used the second or third time. To open a can sealed with wax, strike the wax with a tack hammer until it starts, pick out a piece, pry the lid with the claw of the hammer, and the rest will loosen so that it can all be picked off and the can brushed before removing the lid. This keeps the particles from the fruit, and is much nicer than melting the wax with a hot iron.

When fruit cans have been sealed and ready to put away, turn them top downward on a table and let them stand until the next morning, examine carefully, and if no juice has worked its way out you may be sure they are well sealed. Place them on shelves in a cool, dry cellar, and keep them there until ready for use. If tin cans are used, paste labels on while the wax is hot, that you may know what they contain when you wish to open them.

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SAN FRANCISCO

Saturday, August 12, 1876.

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The Week.

The news comes again of an awakening in the wool markets of the East. Last week's trade excelled in amount and spirit anything which has been noted for three or four years. The manufacturers, pinched by the long depression, have been running their cards close to the end of the stock. The people having worn their clothes, from overalls to Sunday suit, well down to the nap and thinking the price of new supplies had reached its lowest ebb, have begun to purchase cloth. This movement of the cloth starts the spindles again, the spindles draw on the cards, the cards draw on the back walls of the storehouse and the merchant goes to the market to fill the vacuum. The whole wool industry bids fair to awaken again. This is the news which the week brings to meet the fall clip which is now rolling thick and heavy from sheep which the splendid season's feed has made fat and vigorous. Let this promising note stand beside the other good things which last week announced.

Joy to the East with the Californin fruit which they are now eating. California plums selling for five cents each in the Chicago market, and other fruits in proportion. This week a man lectured before the San Francisco academy of sciences on a new air ship, in which he is going to New York on the wings of the wind. Let him load up with the fruit which now lines our streets with its beauty and perfumes them with its fragrance. Plums five cents each! There would be millions in it!

Restoring Pastures.

EDITORS PRESS:—There is in this county, and indeed throughout the State, much steep, hilly land. Upon some of this grows chemisal or chaparral. Other hillsides support scrub oak and manzanita brush in profusion. In some of the now bare places there was formerly a very fair growth of wild oats and other kindred grasses, but continued grazing with sheep has killed off that. In high altitudes, among the pines, there is considerable bunch grass, the best of feed, but that is following its congeners and becoming extinct. Much of the land to which I refer is good; but during our long, hot summer it is perfectly dry. Were it possible to irrigate it, there would at once be a fine growth of whatever seeds might be planted, but that is impracticable. Do you or any of your readers know of any grass or grain which would grow in such a situation and make an annual crop of hay or a perennial pasture? By answering this through your columns you will confer a favor on many of your readers, and solve the problem fast becoming of importance, of "what are our hill lands good for?"—SENTINEL, Gravelly valley, Lake county, Cal.

Our querist moots a very important question, and one which is worthy of careful and general investigation. The solution is not easy, although there are now some practical movements among owners of these worn out pasture lands which promise successful restoration, at least in individual instances. It is easier to tell the cause of these bare lands than to propose any remedy short of the general process of seeding, by which they were originally covered. Continued feeding on the annual plants of which the original pasture was formed has cut off their seeding and killed them out. The constant demands of the stock have shut off all attempts of nature to fill the vacuum. So long as the presence of the stock is maintained to the extent which has wrought the injury there is little chance for restoration. Rest, which will give opportunity for growth, and a furnishing of proper seeds, will enable almost all of these to regain their strength. The latest plant which we hear advocated for this purpose is the burr clover, which is indigenous to our State. One of our largest dairy farmers is now putting in large quantities of the seed. It may be harrowed in and will make a good catch without plowing, which is a great desideratum in many locations. If the plant is not fed too closely it will be perennial, and thus will be superior for the maintenance of pasture to the plants which are now disappearing. Of course burr clover is objectionable as feed for sheep, but when the land is bare it might be found more profitable to grow burry wool than none. On the other hand, burr clover is excellent dairy feed, both green and dry. We shall await with interest the result of the experiments which are now being made with this plant. We have in mind a number of experiments which have been made with other seeds imported for the purpose at considerable cost, but we are sure of none of their success, and it is not worth while to state them. We hope our readers who are making the question the subject of experiment and investigation will favor us with the results they attain; the matter is important and should receive free discussion.

The improvement and restoration of worn out pasture lands are vital topics in all dairy and stock countries. At the East the purchase of imported seeds is on the increase, and many lands are being put down with a mixture of half a dozen forage plants, on the English plan. Their experience would be of little value to us, because of the different conditions prevailing. In Australia the same difficulty meets the stock grower that our correspondent describes. On their forest lands, which will not admit of the growth of alfalfa, they have tried numerous imported English grasses, but without satisfactory results. They have now begun an investigation of their native forage plants to discover their adaptations, and there are reasonable expectations that the investigation will yield valuable results. It seems to us that this is the first and most natural thing to do in a case like the one which meets us. We possess but little and wholly unclassified knowledge of the forage plants which are indigenous to this coast, and yet upon them depends a great part of our success in dairying and grazing. We doubt not that a systematic study of our native forage plants would disclose much information which would be generally valuable. Who is to accomplish this and bring forth results which can only be determined by a series of careful experiments we do not know. All useful plants should be tested under all the conditions which prevail on our different soils and locations. This would be beyond the power and resources of an individual, and would, we think, be a proper subject for State inquiry. Until this is reached, we know of no better way to make progress than for each patient investigator to make known through the PRESS the result which he may obtain in his trials and investigations. We shall be glad to hear from all our readers concerning the success which they have had in the treatment of the hill lands to which our correspondent alludes. The way for workers in any line of agricultural effort to compare notes is by sending to us an account of what they have done, and thus all may profit by the wisdom of each, and each may work in the light which all have gained.

GOOD CROPS IN WASHINGTON TERRITORY.—A dispatch from La Conner says: Harvesting commenced in this section about two weeks ago. Crops are turning out exceedingly well, and, should the favorable weather continue, the yield will be immense.

The Codling Moth.

It has come. The great pest of the Eastern orchardist has begun its inroads on our fruit. A friend remarked to us the other day, "It has always been my boast that a man could eat a California apple in the dark without fear of a worm." This will not long be true unless our orchardists exercise eternal vigilance and employ effective remedies. From week to week we learn of some new enemy of our fruit, and our experience doubtless will be like that of fruit growers everywhere, viz.: that all efforts for improving fruit and extending its cultivation are accompanied by the insect enemies. They are continually on the alert and must be fought without mercy. We have been shown a letter from S. R. Chandler, of Yuba City, Sutter county, in which he writes as follows:

I was yesterday at the old Briggs' orchard, on the Yuba, above Marysville, and I saw pears badly infested with worms, some of them three-quarters of an inch in length. They entirely ruin the fruit for keeping purposes, as it soon begins to rot at the core. It was told that the apples on this ranch were injured in the same way. The largest worm I saw was about three-quarters of an inch long, of a brownish yellow color, with a black head. As this is the first seen of this scourge, and as perhaps one-tenth of the fruit is affected, I fear it may extend throughout the State to the great injury of the fruit interest.

We have no trouble in recognizing the larvæ of the codling moth from Mr. Chandler's description. It has a characteristic method of working in the fruit. We have been acquainted with the scourge for many years in Eastern orchards, and can bear personal witness to the truth of the points of the insect which we shall draw from the writings of Prof. Riley, adapting his instructions to the peculiar circumstances of our climate.

Natural History.

The worm of the codling moth, when young, is whitish, with usually an entirely black head and a black shield on the top of the first segment. When full grown it acquires a flesh-colored or pinkish tint, especially on the back, and the head and top of first segment become more brown. It is sparsely covered with very minute hairs which take their rise from minute elevated points, of which there are eight on each segment. The cocoon is invariably of a pure white color on the inside, but is disguised on the outside by being covered with minute fragments of whatever substance the worm happens to spin to. The chrysalis is yellowish brown, with rows of minute teeth on its back, by the aid of which it is enabled to partly push itself out of its cocoon, when its time to issue as a moth arrives. The moth is a most beautiful object. Its fore wings are marked with alternate, irregular tranaverse wavy streaks of ash-gray and brown, and have on the inner hind angle a large tawny brown spot, with streaks of bright bronze color or gold. The moths soon pair, and the female flits from blossom to blossom, deftly depositing in the calyx of each a tiny yellow egg. As the fruit matures, the worm develops. In 33 days, under favorable circumstances, it has become full-fed; when, leaving the apple, it spins up in some crevice, changes to chrysalis in three days, and issues two weeks afterwards as moth, ready to deposit again, though not always in the favorite calyx this time, as I have found the young worm frequently entering from the side.

With first blossoms the moths make their appearance, and the first worms begin to leave the apples from 35 to 40 days, and become moths again within a month. While some of the first worms are leaving the apples, others are but just hatched from later deposited eggs, and thus the two broods run into each other; but the second brood of worms invariably passes the winter in the worm or larval state, either within the apple after it is plucked, or within the cocoon.

Though the codling moth prefers the apple to the pear, it nevertheless breeds freely in the latter fruit, and has also been found in the peach, quince, plum and crab-apple.

Remedies.

Though with some varieties of the apple, the fruit remains on the tree till after the worm has left it, yet by far the greater portion of the infested fruit falls, prematurely with the worm, to the ground; hence much can be done toward diminishing the numbers of this little pest by picking up and destroying the fallen fruit as soon as it touches the ground. For this purpose, hogs will be found quite valuable, when circumstances allow of their being turned into the orchard.

There is, however, a more infallible remedy, and one which is always practicable. It is that of entrapping the worms. This can be done by hanging an old cloth in the crotches of the tree, or by what is known as Dr. Trimble's hay-band system, which consists of twisting a hay-band twice or thrice around the trunk of the tree. To make this system perfectly effectual the following rules must be observed: 1st. The hay-band should be placed around the tree soon after the apples are formed, and kept on till every apple is off the tree; 2d, it should be pushed up or down, and the worms and chrysalids crushed that were under it, every week, or at the very latest, every two weeks; 3d, the trunk of the tree should be kept free from old rough bark, so as to give the worms no other place to shelter; and, 4th, the ground itself should be kept clean from weeds and rubbish.

The philosophy of the hay-band system is simply that the worms, in quitting the fruit, whether while it is on the tree or on the ground, in their search for a cozy nook, in which to spin up, find the shelter given by the hay-band just the thing, and in 99 cases out of 100, they will accept of the lure, it no other more enticing be in their way.

There has been some difference of opinion as to the best form of bandage to be used. To be thoroughly effectual and durable it should be sufficiently firm in texture that it cannot be too easily cut through by the jaws of the worm, or drawn in folds and wrinkles by its silken threads. A stout and narrow piece of cloth or canvas, draw around and fastened to the tree by a tack, is perhaps the simplest form of bandage and the most quickly fastened. Some use strips of cloth one and one-half inches wide. But every one must decide for himself what will be the cheapest and most expedient, according to the extent of his orchard and the facility with which he can procure rags, cloth, hay-bands, or other substances.

Summary.

The apple worm or codling moth is an imported insect. There are two broods each year, and the second passes the winter within the cocoon in the larva state. Use hogs and sheep in the orchard wherever it is feasible to do so. Place no confidence in lights and bottles, but rely on the bandage system. Have the bandages in place three weeks after the first blossoms, and destroy all the cocoons underneath them every two weeks till the apples are harvested. Be sure and destroy in the spring all the cocoons found around storehouses. Urge your neighbors to combine with you in this work.

We shall be glad to receive notes from all readers who find their fruit infested with the worms we have described. We shall do all in our power to warn orchardists to begin early to defend themselves against the insect. A wide and united warfare is needed to save our fruit, for the pest multiplies like the wind if left to itself, and spreads far and wide. Let us look closely and give the scourge a most pressing reception.

Plain Condensed Milk.

EDITORS PRESS:—I am a milk condenser, and I have worked making condensed milk, both plain and preserved. I think it would be a good business to send it to San Francisco. I have worked in a factory six years, and I can see that the plain condensed milk is running all other milk out. In 1866 it was commenced in the factory here with ten cans a day, now the firm sends 140 cans and there are four other companies making and sending it. Plain milk is merely reduced four pounds to one, and is sold by the quart. It is better for children, for ice cream and all cooking purposes.—W. M., Dutchess county, N. Y.

We have received the above letter from a man in New York State who has worked, as he says, six years in a condensing factory and thinks the business which he has been engaged in would be profitable here. Some months ago, in answer to an inquiry, we gave an outline of the process of condensing milk and an estimate of the cost of the machinery needed. Our conclusion was that there did not seem to be enough demand for condensed milk to keep a factory running.

The matter advanced by our correspondent is somewhat different from that we considered before. That was preserved condensed milk, sugared and canned and with comparatively little commercial use, except for ship and army stores, and for campers and travelers generally. Of course there is a limited demand for home consumption aside from this. The manufacture which our correspondent proposes is different. It consists in reducing the milk from four to one and then delivering it to city customers as ordinary milk is delivered. No sugar is used; no cans are needed. The great advantage in the manufacture is to give city people a milk which they can be sure has not been adulterated.

The manufacturers of plain condensed milk, near New York city, find that they can save enough on the freight to pay the expense of condensing. The milk has become popular in New York city for domestic uses and its production and sale has greatly increased of late years. The surety of a pure article is of great weight with city milk consumers. The condensing process is to a certain extent a safeguard against impurity, because it is impossible to make a sweet article of condensed milk without the cleanest, purest milk to start with. We can see no reason why a factory of plain condensed milk in this part of the State might not do a good business if the product were pushed on its excellence in a business like way. If any of our readers should be interested in the project, we will cheerfully give them all the information we possess on the subject. The correspondent quoted above expresses his willingness to come to the State if the enterprise should be undertaken.

PERSONAL.—We had a call on Tuesday from our much prized contributor, W. A. Sanders, of Fresno county, whose writings on raisin making have given him wide fame. We regret to inform our readers, as we were grieved ourselves to learn, that Mr. Sanders has been sore afflicted with erysipelas in his hands and feet, and for 36 long days was held to his bed. He rises from his affliction greatly reduced in flesh and strength, but retaining the strong heart and clear mind which makes his life a value to us all. We hope for him a speedy and complete recovery and full restoration of strength. His life's best work is yet before him, and he best of all can accomplish it. We shall rejoice to hear of his continued convalescence and recovery.

Queries and Replies.

Wild Plum or German Prune.

Editors Press.—Some ten years ago I was in the Monte Diablo range, on what is known as Marsh canyon or creek. My attention was drawn to a thicket of wild plum bushes. Not knowing anything about wild plums in this country, I pulled up some of the sprouts for the purpose of grafting other varieties on them. I brought them home and grafted what I had bought for the German prune on them. The grafts grew on the wild stock but made a very slow growth, but bore very full. In the meantime a sprout put out on the original wild stock and I concluded I would try budding it on the peach, and the sample I send you is the result of my experiment. I send you to-day a box of plums or prunes, containing the wild prune and what I bought for the German prune. Now, Mr. Editor, if the sample I send you is the German prune, I claim that my wild prune is a distinct variety. I send you the two varieties that you may compare them, when you will see the difference in the two varieties.—Mark A. Walton, Antioch, Cal.

The two samples of prunes which Mr. Walton sends us are one and the same variety, generally known as the German prune. The sample which Mr. W. calls the wild plum is a very good specimen of this prune, and that which came from the grafts he bought for German prune, is a poor specimen. But they are one and the same, differing only in the size and quality, as fruit always varies according to age or thrift of the trees, heavy or light fruiting and other causes. If Mr. W. is sure that the fruit he calls the wild plum is really from a sprout which came from below the graft, then it is beyond doubt that he found the German prune on Monte Diablo, and gained nothing by grafting. This would be possible, for the German prune generally comes true from the pit, and the pits may have been scattered where he found the wild trees. How the fruit may have come to him we cannot tell, but its identity is easily established. If Mr. W. will consult Downing's "Fruit and Fruit Trees" he will find an outline engraving of the German prune, which will match his fruit exactly, and a description which is no less accurate as applied to his samples: "Fruit long oval, nearly two inches long, peculiarly swollen on one side and drawn out towards the stalk. Suture distinctly marked. Skin purple with a thick blue bloom. Stalk three-fourths of an inch long, slender, slightly inserted. Flesh firm, green, sweet and pleasant; separates from the stone, which is flat, very long and a little curved."

The Philosophy of Haymaking.

Editors Press:—I have tried several times to make hay after the most approved method, which claims that grass cut in the morning should not remain in the field over night; but failing every time in getting a good article, I came to the conclusion that grass is a different thing from wheat, barley and wild oats, of which most all the hay is made here in California. Wheat, barley and even wild oats will commence to rot in the cock when put up too green, and that here in Santa Clara county.—Wm. Pfeffer, Saratoga, Cal.

Doubtless the new practice to which our querist alludes finds its drawback in the thicker and more succulent stem of early cut grain over the grasses used in the East for hay. What we have seen of the new practice does not cock the hay at all. Cut early in the morning, the grass is turned several times with the tedder and finally gathered with the horse rake to pile on the wagons. The new system relies upon more frequent turning and consequently more thorough and rapid exposure to the sun to drive off the surplus moisture before the dews of the evening fall. With our heavy stalked hay, filled with juice, the practice has not the same chance as with fine stalked grass. Nor is there the same need for haste here as in a region where the rains may come at any moment and wash the color and juice from the hay.

Deep and Shallow Setting.

Editors Press:—With reference to Mr. Claussen's article on deep and shallow setting of milk, which you printed some months ago, I would like to know what depth of pans is meant by deep and shallow setting. —R., Walnut Creek.

By shallow setting Mr. Claussen meant the common five or six quart pans, generally used in our dairies, giving a depth of milk of three or four inches. By setting deep he signifies setting in a deep pail (or *cooler* as they are called in Eastern creameries), giving a depth of 15 or 20 inches of milk. These deep pails are set in a pool or vat of running water, the water coming well up to the top of the pail.

Borers.

Editors Press:—The last two seasons I prevented the borer from attacking my fruit trees by smearing a mixture of lard and sulphur around the lower body of the tree according to an advice I got then from the Rural Press. I exempted a few dozen of apricot trees, thinking that the borer would not attack them. Some time this spring, when I treated my trees with a wash of soap suds and ashes, I examined the apricot trees also, and found to my sorrow that all of them had been more or less "girdled." I removed the dead bark with most of the borers and washed the trees thoroughly; a few weeks after repeating the washing, and after hunting for more borers I found some but they were dead.—William Pfeffer, Saratoga, Santa Clara county, Cal.

Preserving Fruit.

Editors Press:—Will you inform me through your paper which of the following is the best to keep apples and pears the longest time and in best order: By putting in cribs in open weather, by putting in cribs under cover, with sides open, or by putting in boxes, in a cool, dark room. Have light and darkness any effect as to keeping fruit.—A Subscriber, Petaluma.

We invite the relation of experience on these points.

On File.—"Sugar Cane," W. C. M.; "On Education," E. C. B.; "Anagrams," C. C.; "Mat Box," J. E. J.; "Views of Life," J. T.; "Going out of Town," E. E. A.

Feeding for Milk.

During our recent visit to the farm of Robert Ashburner, we made some notes of his feeding practice which may be of interest. Mr. Ashburner produces milk to sell to the city milkmen and he naturally shapes his practice to securing the largest yield of milk possible. To this end he is breeding his herd and to this end he is feeding them. He has a dairy which it is worth a journey to see, they are such vigorous and capacious animals. Although of the purest Short Horn blood they are far different in appearance from what is generally seen in the show Short Horn and not in as high condition as the searcher for fat beef would enjoy. They are in first-class milking condition, and being bred with especial reference to this specialty of usefulness, the generous and rich food which they receive goes directly to the pail, with just enough retained in the animal to ensure vigorous strength and healthy assimilation. This is exactly what a dairyman needs in a cow and anything short of this, while it may delight the fancy or serve the butcher will not fill the ideal of dairy stock.

Mr. Ashburner is making alfalfa the basis of his dairy feed. He has now about 50 acres in growing. Its fresh verdure is noticable as one drives along the road towards his farm and the green fields are a marked contrast to the dry yellow and brown of adjoining lands. He has one shallow canyon which winds through his farm and gives him quite a width of bottom land and this is mostly seeded with alfalfa. As one looks into this break in the hills it reminds him of the low, green valley of the song, and with the cows scattered here and there, standing up to their knees in the rich feed, one gains as pretty a picture of dairy farming as can be desired. In all the 50 acres which Mr. Ashburner has seeded to alfalfa he has secured a good catch and a gratifying growth.

Alfalfa is used both for pasture and for hay. Mr. Ashburner has stored 60 tons of the hay. He is very positive on one point in alfalfa hay, and that is, that the time to cut it is before it blossoms, while the leaves are all fresh on the stems and the stalk has not taken on its wooden quality. He regards it a mistake to wait for the full bloom. For feeding alfalfa hay he has a practice as follows: The hay is cut by horse power and falls from the cutter into a bin adjoining a trough, 14 feet long and three feet in width and hight. In the trough the cut hay is mixed with bean and barley meal, and a feed of about eight pounds of the mixture is given to each cow at a feeding, of which there are two a day. The average is eight pounds to each, although the feed is gauged according to the deeds of the cow, the ration when in full milk being probably about 10 pounds. This feed is now supplementing the pasture and it is so sweet and rich that its influence upon the flow of milk is very marked.

We went out with Mr. Ashburner to look over that field of mangold of which he has given us such an interesting description. We found them growing well and promising a large yield. The soil is in splendid tilth, and has been so thoroughly worked that the moisture is held well up to the plants; for working in the mangolds he has a cultivator of English make, which has knives which cut horizontally just below the surface of the ground and they cut and pull the weeds from the mellow soil very thoroughly. The field had lately been worked over with this tool and looked as clean as a well kept garden. In February the cows will come upon these mangolds, and we shall be mistaken if they do not rejoice over the acquisition of the diet.

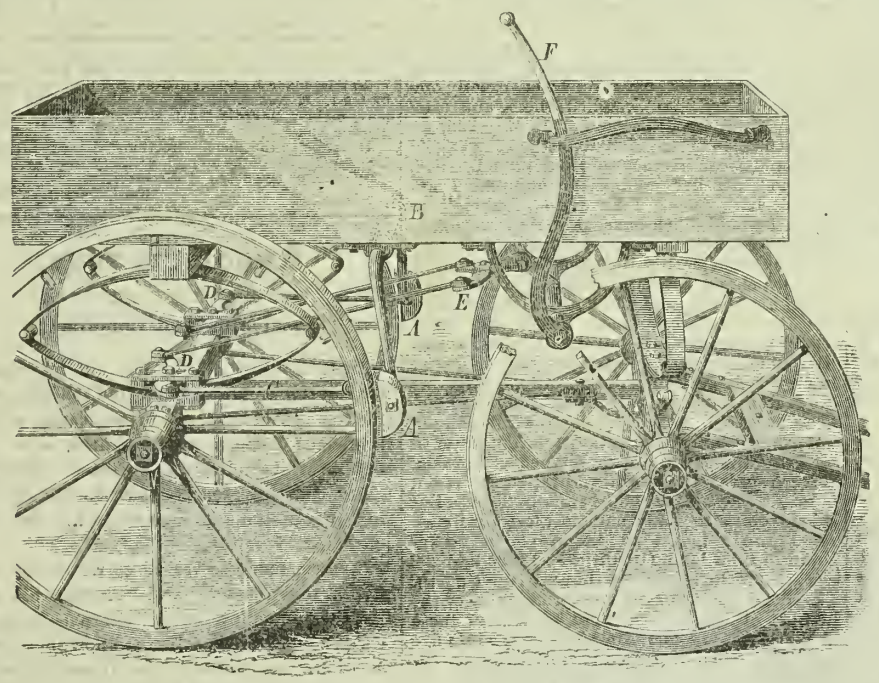
From the brief note we have made it will appear that Mr. Ashburner is a believer in good feed for dairy stock. He finds his milk production profitable and counts an additional percentage of profit on the extra care and expense incurred in constantly setting sufficient food before his cows. Breed and feed are the two great factors in the production of animal excellence, and wise is he who heeds them.

Howell's Self-Adjusting Brake.

The importance of a good brake is appreciated by all teamsters. We illustrate on this page a new brake which is highly recommended by those who have used it. The following is a description of the contrivance as shown in the engraving:

The brake shoes, *A*, are suspended in front of the hind wheels by arms of shafts, the inner ends of the latter being secured in a sleeve, *B*, (dotted lines) underneath the wagon. The shafts not being connected together, and working independently in the sleeve, *B*, it follows that either brake shoe may be pushed against its wheel without causing a like movement of the opposite shoe. To each shoe is attached a rod, *C*, which is attached to pivoted lever, *D*, and these last by rods to the evener, *E*. The levers, *B*, it will be observed, are pivoted to the rear axle, so that the direction of the forces, imparted by them to the axle and by the shoes to the wheels, will oppose and neutralize each other through the wheels and the axles. The evener, *E*, is pivoted to the end of a rod which is connected to an arm of an oscillating shaft suspended from the bolster or front part of the wagon box, and provided with a hand lever, *F*, for operating the mechanism.

The inventor claims for his brake that it has the following advantages over the common brake: It operates with greater force; it racks a wagon less than any other lock you can attach to it; it imparts an equal force to each wheel, though the diameters may not be equal; in dangerous places you can always rely upon it.



HOWELL'S IMPROVED PATENT WAGON BRAKE.

Mr. Howell writes us that many parties are taking off the old brakes and substituting his. Any further information may be had by addressing C. M. Howell, Andover, N. J.

The West Side Survey.—The latest information concerning the West side irrigation project, is that the commissionors have secured money enough to warrant them in proceeding with the preliminary survey and meapping. The Antioch *Ledger* says: The West Side Irrigation commissioners held their regular monthly meeting at Grayson, on Tuesday last, the full board, Messrs. McDonald, Williams and DeVeuve being present. Mr. Hall, the gentleman appointed as chief engineer was also present. Estimates were made concerning the necessary survey, camp outfit, etc., and it was determined to meet at Grayson on the 20th inst., proceed to Tulare lake and commence the survey of the canal. The commissioners have labored under considerable difficulty in procuring the necessary means essential to the making of this extended survey but by united and untiring efforts, aided greatly in their labors by Governor Irwin, they have finally succeeded and will now make a thorough survey and exhaustive report of the district as required by statute. We have never for a moment doubted the necessity or feasibility of building this canal and are pleased to announce that the work of survey is about to be commenced.

Oregon's Progress in Flax Manufacture. —We notice that the Oregon farmers are pushing their flax enterprise. The Albany *Democrat* says: "Messrs. Jessie Parrish and Charles Miller, who have some 200 acres of flax in cultivation, commenced pulling on Tuesday last with 44 hands, principally Chinamen. We learn from Mr. Parrish that Mr. Crane of New York, arrived on the last steamer to be closely followed by $75,000 worth of machinery for the manufacture of linen thread, cordage, etc.

Centennial Chat—No. 4.

[Written for the Press by Mary Mountain.]

The Boston lady was with me that day in Tasmania, and when we tried to take our bearings we concluded there was no mistake about our being in Australia, for the close neighborhood of Queensland, New South Wales and Victoria was a great support and comfort to our rather shaky geography. Yet we felt as wise as anybody and laughed heartily at the bewildered looks of other pilgrims groping in unknown countries.

Guessing at things and laughing at blunders was all very well in the hurry of sight-seeing, but when I sit down soberly to tell about it, I take the big atlas on my knee and find that the island south of Australia is no longer called Van Dieman's Land, but is rapidly coming to the front under the new name of

Tasmania.

Quite near it on the map, and also here in the main building, one may recall what they supposed they knew about New Zealand.

It seems such a short time ago that Peter Parley's geography taught us of these far away places, and gave us awful impressions of their savage character and cannibal propensities; and now to find them here sitting in peaceful rivalry with the whole known world—is it not wonderful?

Yet here among the soft and civilized pictures of Hobart Town, capital of Tasmania, are portraits of the wild natives looking savage enough, but with an odd mixture of refinement as to their names, for one broad-nosed belle is called Lalla Rookh, and a thick-skulled old fellow is dubbed Scottish Chief.

The pictures of prize sheep, of fine scenery, handsome churches and public buildings might challenge excellence with ours of California, if ours were only here to speak for themselves.

There is a fine exhibit of skins and furs, a pretty rug made from the skins of the small native cat; the kangaroo skins are of all sizes, and those of the albatross glossy and smooth. Flying squirrels are nicely stuffed, and among other curious animals there is one with the peculiar combinations of webbed feet, shovel beak, a spur on the hind claws, a pouch for its young like the kangaroo and fur like the beaver. To this queer mixture of duck, rooster, beaver and kangaroo, they have given the easy name of

Ornithorhynchus.

The canned fruit and jam look as if they were perfectly delicious, also the jelly made from sea weed; but the sea weed itself will not make your mouth water. The shells are similar to our own in the bay of Monterey. The silk and felt hats for men look as stylish as those from London or Paris, and in the same case are wool and fur hoods, and drab felt pull-overs, designed to protect the hats and head under them from the pelting of sudden storms.

The wheat and other grains are plump and perfect, and there is a long line of lovely, contrasting colors in the cases of assorted seeds, black oats, flax, rape, acacia, red clover, lucerne, peas, beans, and many seeds whose product is unknown to us.

The varieties of wood, rough cut or polished sections from their forest trees, were so many I did not try to count them; but away down at the end of the row were some odd-looking bundles marked "pailings from bark," and after puzzling over them awhile, I asked the pleasant Tasmanian if they were to make into pails.

"O, no, madam; those are for fences."

"But in that case the word has an *i* to many, and leads to a different meaning."

"Surely you must be mistaken, madam; it is p-a-i l—pailings; but I will look at the printed catalogue."

So he hunted up the word, declared very heartily that I was right and the label wrong, and I left him whistling softly over his bark palings that would, I think, make a stout, durable fence.

There were enough things to keep one interested and astonished for a day or two, but I will only notice the native pipe clay, with very fancy pipes made therefrom, the samples of slate, tin ore, iron ore, marble, umber, red ochre, petrified wood, shot, from the only shot

Tower in the Southern Hemisphere,

And their first spinning jenny.

Everything here was more interesting to me than the dazzling display of more familiar things from nearer countries, and gives the impression of a varied industry and the aptitude of an enterprising people.

Sitting down to rest by a neat old lady, she saw our look of sympathy and began to talk. "Now let me tell you, ladies, what a thankful creature I am. Ninety years' old am I this very year, and all around here can I go and see these wonders with my own eyes. Yes, ladies, with my own old eyes; and I never wore glasses in my life, but I thread my needle and sew, and read my paper, and nobody in the whole world has so great cause for thankfulness. All my children are kind to me. Not one would see me suffer. But this son you see sitting over there, he is my youngest and lost his wife with six children left behind, and O, *such a machinist* and has business to do with this great show if you will but believe what I tell you."

(Continued on Page 116.)

(Continued from Page 107.)

again, into carts and out again, upon shelves in the store, or into barrels, bruised and jammed by all these handlings until the keeping qualities of the orange are almost used up.

When the oranges get to market in this condition they bring a poor price. The result is the growers of the fruit must take a less price for the oranges on the trees, so that after an allowance is made for all the handling of the fruit, a profit may be realized by the buggermen and by the merchants. Now it must be evident to thinking orange men, that this clumsy way of handling and selling their fruit is not what it should be. It can be bettered. It must be changed and improved.

The Way Oranges Ought to be Handled.

What we propose, is something as follows: Let there be a central receiving and forwarding house for oranges established in New Orleans under the management and direction of an orange growers' association. Let there be a house for general distribution of oranges established in each of the four cities, Louisville, Cincinnati, St. Louis and Chicago, under the direction of the parent house in New Orleans, and, of course, under the direction of the orange growers' association also.

From these four points, as centers, can be worked up a trade in oranges with the hundreds of towns and cities in the interior of the Western States. Shipments can be made to the Eastern cities direct from the parent house in New Orleans.

The principal part of the work in the way of creating a demand for the orange, is by bringing the consumer and producer together in a way that the former can afford to buy what the latter has to sell, will depend on the efforts of the distributing houses at the four points named.

The business of the parent house in New Orleans, will be to receive the oranges, packed in barrels or boxes, direct from the orchards of the members of the association—each barrel or box to be marked with the name of the owner or orchard, and to ship the same in the order of time the fruit comes into the receiving house, unless otherwise directed by the owner of the fruit—to the distributing houses in the West. If the association desire it, a local trade can be done also at the parent house.

A Word as to Packing.

The keeping qualities of the orange are much affected by the manner of handling in packing the fruit—and of the handling of the package after being packed, as well as by the condition of the barrel or box, in respect to fitness for use.

The fewer times the orange is picked up and laid down, the better it will keep. The aim, therefore, of the orange grower, should be to handle his fruit as little as possible and as carefully as possible. After the oranges are taken from the tree, they should be laid under cover, on a floor high enough above the ground, with the planks far enough apart to admit a free circulation of air, and should remain there at least 24 hours to shrink and sweat as they always do—before they are packed. This gives time for any bruise or damage caused by picking to show itself. All damaged ones, no matter how slight the damage, should be laid aside: only sound ones should be packed. The packing should be done in the orchard, to prevent bruising the fruit by handling it in a loose condition too often. After the fruit is packed the packages should be handled with care—it will pay in the end. Taking all the circumstances together that bear upon the keeping qualities of the orange, as well as the price of the box or barrel, preference must be given to the box in packing. The most convenient size and shape is that of the common lemon box, holding about one-half barrel.

Cure For Rabbit Gnawing.

Our correspondents keep us in mind of the damages done by rabbits to their fruit trees. In case the injury be done to a valuable tree it may be worth an effort to save it. We find in the *Fruit Recorder* a fruit grower writing as follows: In the spring of 1874, before sap started, rabbits gnawed the bark off of one of my dwarf Bartlett pears, standing in my yard. The tree was so completely denuded of bark all around, that I thought it "hopelessly done for." I spaded a mound of fresh earth around it several inches above the wound, and left it in that condition to die—not knowing any remedy that would preserve it. But it came out fresh in spring with the other trees, and kept perfectly green all summer. I did not remove the dirt until the next fall, when to my astonishment, there was a complete connection of bark—the wound was healed, and it is now as healthy as any tree I have. In spring of 1875, the rabbit girdled a young apple tree in the same way, only more so, taking the bark off for six inches or more all around. I threw a mound of earth around it and left it as I did the pear, until last fall, when, on removing the dirt, it had also healed over and made new bark. Now, sir, I would like for some scientist to explain. The bark, while forming, I noticed rose up in bumps like rough excrescences, about in places on the hard wood, and finally united and became confluent or solid perfect bark. I am going to experiment further, and test it more fully; though there is no doubt about these instances, and particularly the last, where they healed and formed the new bark.

Poultry Yard.

Pekin Ducks.

We print the following from advance sheets of an article written for an Eastern journal by our poultry editor:

I have never spared money or trouble to procure the best fowls for my breeding pens, as many prominent fanciers can testify. I have had prize birds in Rouens and in Aylesburys, and some fine black Cayuga ducks, and it has been a *decided loss* to me to give them up and adopt a new breed; but I have discarded all for the Pekins. I imported a lot from China, but saved only a drake and three ducks from the hardships of the voyage. One duck commenced to lay January 25th, 1875, and within ten days, the three were laying and continued for 35 days thereafter, each day three eggs, never missing a day. Then one duck stopped—but in five days commenced again to lay. Thereafter, first one and then the other would take an interval of rest, sometimes showing a disposition to sit; but none failed within six or seven days, to commence laying again; and there was not a single day, from January 25th to May 26th, that these three ducks did not furnish at least two eggs. For a few days thereafter I got but one egg, and June 1st all ceased laying, and I imagined that they had finished for the season. But five days more, and two of them commenced again, and I have had two eggs each day since. To-day is the 15th. I have kept a careful account of the eggs laid by these three ducks, January 25th to June 1st—the number is 293—laid in 127 days. I have shipped the eggs to all parts of the coast, and in most instances as high as ten out of a dozen hatched, and in many cases every single egg, making the average hatch, as far as heard from over 80 per cent. On March 20th I hatched 13 when they were exactly one month old, my man weighed them, and they averaged three pounds each. On May 22d, we weighed them again, and 12 of the 13 weighed 60 pounds—an average of five pounds each. One weighed five pounds, 11 ounces. I am stating bare facts. I have no "bubble" to blow; I would much have preferred to retain the Rouen, or Aylesbury, or Cayuga, as a better duck, considering the time and money I have expended to obtain first-class stock, and such I had in the two first named. I do not know how the Pekins compare in weight, when fatted for show purposes, but in size mine far surpass and other duck I ever saw. My neighbor has a very large Rouen drake, fully as large as the first premium bird of the pair sold me which I am assured, weighed, when exhibited, 18 pounds. I caught them as they ran, not fattened for exhibition. The Rouen weighed six pounds, three ounces, the Pekin eight pounds seven ounces, they were both equally lean. But apart from size and this most extraordinary rapid growth, they would be my choice, on account of their laying qualities. Three laid 293 eggs in 127 days, and now they are laying again. I shall continue to keep a strict account of the number of eggs. The rapid growth of these ducks seems to me simply marvelous—five pounds at two months old. Considering the number of eggs they lay, I can net more money from these ducks, by selling the young at market rates for food, than I can from an equal number of breeders of Rouen or Aylesbury, by raising the number of young and selling at $10 00 a pair. I do not profess to know as much about ducks as my friend Mr. Bicknell, and mayhap, I have not done as well with my Rouens, or Aylesburys, or Cayugas, as he would have done, and Pekins may not require as much knowledge, care and study, as is necessary to rear the other breeds; but I am certainly very sure that were I now about to start to raise ducks, especially if for market purposes alone, and not to sell at fancy prices, I should prefer to pay $100.00 for a pair of Pekins than to receive a pair of any of the other breeds gratis. M. Eyre, Jr.

Napa, Cal.

The Horse.

Speed Programme at the State Fair.

We print below the speed programme for the coming meeting of the State agricultural society at Sacramento.

First Day, Monday, Sept. 18th.

No. 1. Purse $300. Running. Winters stake, by Theo. Winters, Esq. Entrance, $50, (if from the East, $25) p or p, added. For three-year-old fillies. Stake to be named after the winner. Second horse, saves entrance; mile and one quarter dash.

No. 2. Same day. Purse $250. Running. Entrance $50, p or p, added. Mile dash for two-year-olds. Second horse saves entrance.

No 3. Same day. Purse $300. Running. *Spirit of the Times* stake, by the proprietors of the *Spirit of the Times*. Entrance, $50, p or p, added. Second horse saves entrance. Mile heats for three-year-olds.

Second Day, Tuesday, Sept. 19th.

No. 4. Purse $1,200. Trotting. Class 2:23. First horse, $750, second $330; third $120.

No. 5. Same day. Purse $500. Trotting. Class, 2:40. First horse, $350; second $100; third $50.

Third Day, Wednesday, Sept. 20th.

No. 6. Purse $700. Running. Free handicap. $50 entrance added, $25 if declared. Second horse saves entrance. Dash of one and one-half miles. Entries to close Sept. 1st. Declaration, September 16th.

No. 7. Same day. Purse $800 Running. First horse $500; second $220; third $80. Two-mile heats for three-year-olds.

No 8. Same day. Purse $300. Running. First horse $200; second $70; third $30. For all three-year-olds, that have never won. Dash of one mile.

Fourth Day, Thursday, Sept. 21st.

No. 9. Purse $600 Trotting. Class 2:36. First horse $400; second $140; third $60.

No. 10. Same day. Purse $1,500. Trotting. Conditioned that Occident and St. Julian trot. First horse, $1,000; second $350; third $150.

No. 11. Purse $300. Trotting. *Spirit of the Times* stake, by the proprietors of the *Spirit of the Times*. Entrance, $50, p or p, added. First horse, two-thirds; second, two-thirds of remainder; third, the balance. Mile heats for three-year-olds.

Same day. Occident Plate. Value, $2,000. To any horse that beats Occident's time, 2:16¾ without a break.

Fifth Day, Friday, Sept. 22d.

No. 12. Purse $500 Running. Selling race, free for all. Horse entered to be sold for $1,000; entitled weight for $750; 7 pounds off, for $500; 14 pounds off, for $1,250, 7 pounds added, for $1,500; 14 pounds added, ——. Excess to second horse; mile heats.

No. 13. Same day. Purse $1,500. Running. First horse $700; second $200; third $100. Two-mile heats, free for all.

No. 14. Same day. Purse $300. Consolation. Second saves entrance. For horses that have not won a race. Horses beaten twice, 7 pounds off; beaten three times, 10 pounds off. Mile dash.

Sixth Day, Saturday, Sept. 23d.

No. 15, Purse $800. Trotting. Class 2:26. First horse $500; second $220; third $80. Oakland Maid and Gold Note barred.

No. 16. Same day. Purse $750. Trotting. Class 2:31. First horse $500; second horse $175, third $75.

No. 17. Same day. Purse $1 250. Trotting. Class 2:23. First horse $800; second $325; third $125. Two mile heats.

Alice and Stark Mare barred in all the above races, except in classes 2:23 and free for all.

Entries to trotting races will close with the Secretary, Robert Beck, August 25th; handicaps, September 1st; other running races by 4 o'clock P. M., the days preceding each race, except Monday's race, which will close Saturday, September 16th. Running races will be governed by Pacific coast rules; trotting by the rules of the National Association as amended February, 1876. Ten per cent. entrance to all races except numbers 1, 2, 3, 6 and 11.

Entries.—When making entries please observe the following directions: 1. Name class in which the animal is entered. 2 State color, sex and name of animal. 3. Give the name of sire and dam. 4. If sire and dam are unknown, state the fact when entry is made. 5. If the animal has trotted under another name within two years, the former name must also be given. 6. Entrance fee should be remitted when the entry is made. 7 Entries made by telegraph should also be repeated by mail. 8. Name and residence of owner, as well as party making an entry must always be given with the nomination.

Attention to the above directions will save all parties interested from delay and unnecessary inquiry.

By order of the board of directors.

Robt. Beck, Secretary.

Arboriculture.

Eucalyptus and Conditions.

Editors Press:—It is not our intention to write of the wondrous effect and the properties this tree is said to possess in eradicating malaria in infected districts, where planted, or of a decoction of its foliage as a panacea for fevers and rheumatism, but of some little data in relation to questions previously asked in your journal.

If our memory serves us correctly, the purport of the question was, "At what age does the encalyptus present its alternate leaves?" All who know the eucalyptus know that its first leaves are very different from those it possesses in its after life, by the first being formed opposite on its branches and the latter being four corrugations, giving a square appearance to the stem, or branch; these opposite leaves having no perceptible stem, adhering closely to its branch or main stem, and that at some period in after growth the tree produces alternate leaves with stems; the branches, losing their corrugations, become round and of a different hue in color to its original.

This metamorphosing is very unique and requires close watching to determine when the first change occurs in the young tree. In March, 1875, we planted out several hundred of eucalyptus globulus (blue gum), and about the first of June, of the present year, some of these trees were in their alternate foliage, thus proving that in about 15 months from the time of planting they had assumed their metamorphosed condition. The seed had been sown some four months previous to the planting out and the plants were about 12 inches high when planted, turned out of three inch pots as soon as a sufficiency of roots would hold the ball of soil together.

At this date of writing, July 27th, the average hight of these plants is 22 feet, measuring, at the base in circumference, some 14 inches, some of the trees having branches with alternate foliage about three feet in length. We do not wish to call the attention of your readers to these figures of growth as being something remarkable, because in our own knowledge of the plant in warmer situations, we have witnessed greater results, but it shows an answer to the question of the period of metamorphosing, and that the latter depends more on the conditions in which the plant is made to exist in, than on the age of the plant itself.

Treatment of Eucalyptus.

We have known plants to eke out an existence of three and four years before their strength enabled them to perform this metamorphosis. How many instances do we witness these young trees tied to stakes with all their lateral branches cut off close to the body of the plant, and as they grow made to look more like a "liberty pole" than a tree; and then there is a general howl about being blown down by the wind and many other things that must of necessity occur through malpractice. With reference to the treatment received of the plants in question grown here, the ground was deeply and thoroughly plowed, the ball of earth attached to the plants wet, and placed so deep into the soil as to prevent it from drying out until the young roots would naturally strike into the soil below. No stakes were used, no tree mutilated by cutting off its horizontal branches, nor any artificial watering since the plants were put into the ground. In the month of June, 1875, from the 14th to the 16th inclusive, it rained very heavily here, resulting beneficially to the young trees.

The trees in question are planted in belts. Some odd ones on the outsides immediately facing the prevailing currents of wind, would be somewhat placed out of the perpendicular line, but as they grow they become straight, proving that, if the plants are planted out small enough, stakes are not required.

When will our Treeless Hills be Planted?

After every naturally grown tree is cut down and burned! The population of the country increasing rapidly, and the number of trees decreasing rapidly, and in a country whose climate and soil is surpassed by no other, with a species of tree at hand that in a few years' time would produce miles on miles of forests, creeks of running waters that would irrigate thirsty lands to supply hundreds of rotative crops. No, farmers will not plant a tree, but seems to prefer being taxed for "West-side canals" because of their immense profits independent of "rings" enables them to launch out their hard earnings so freely. When we consider the immense value of several species of this tree for its timber, and the rapid manner by which it is produced, and a country so urgent in its requirements, it seems like a species of blindness on the part of a great many who have means to accomplish the ends, not to plant.

Probably the three best varieties for the purpose in question would be, eucalyptus, gigantea and amygdalina. Perhaps some of your readers will recall that at the International exhibition in London, England, in 1863, a plank was exhibited of this wood (swamp-gum) 230 feet in length. Surely, such timber is worthy of our attention? Will the owners of treeless mountains and hills try it? John Ellis.

University of California, July 27th, 1876.

Tin and Glass for Fruit.

Nearly all the glass cans now in the market are good, so are the tin. Some people say, "Oh, I can't eat fruit canned in tin;" well, if they cannot, it is because they do not know how to can it.

Most of the canned fruit in market is in tin, and some of it is very good, though not so good as one can prepare herself, for whatever is done by the wholesale is usually poorly done. If a can is perfectly air tight it cannot by any possible means impart a metallic flavor to the fruit. Some people will open a tin can, pour out part of the fruit, and leave the rest in; of course that remaining, exposed to the action of the atmosphere, soon acquires an unpleasant flavor. When a can is opened pour all the fruit out, and keep it in the earthen or glass dish until eaten, not in tin. Always can tomatoes, gooseberries and strawberries in tin. If tomatoes are canned in glass, the action of the light upon them will form crystals of citric acid, which makes them so sour that nothing can sweeten them. They keep nicely and without the least trouble if canned in tin, so will strawberries and gooseberries. Cherries are better if put in glass cans; raspberries, peaches, plums, huckleberries, blackberries and currants may be put in either, and no one would know what they were canned in unless told.

French Vegetable Leather.—A material invented by M. Gollissaint Voneche, of Paris, has recently made its appearance on the German market, which goes by the name of French vegetable leather, and which is manufactured in the following manner: A wadding of wool waste, or even of wool itself, of uniform thickness, is laid upon a hot polished zinc plate, and a concentrated decoction of *Fucus crispus*, or pearl moss, or any other fucus-like material, poured over it, and then it is pressed down between two rollers which are placed at a distance between each other corresponding with the intending thickness of the leather; after being rolled, it receives a coat of boiling linseed oil, and is then dried; lastly, the dried sheet receives a thin coating of vegetable wax, and, in order to make it supple, it is once more rolled between hot chamfered rollers. In order to produce a cheap substitute for sole leather, the slimy decoction is largely mixed with flock-wool until a thick pap is formed; this is spread over zinc plates and covered on each side with a thin layer of wool waste, then dried, and afterwards coated with boiling linseed oil, being lastly subjected to a heavy pressure between zinc plates in a hydraulic press.—*Ironmonger.*

A rod of brickwork=272 superficial feet, one a half bricks thick, or 4,350 bricks average work. One yard of paving=36 bricks flat or 52 on edge. There are 384 bricks to a cubic yard, and 1,000 bricks, closely stacked occupy about 55 cubic feet.

Dead or engraved silver goods should never be cleaned with plate powder, but be washed out with a soft brush and some strong alkali, and well rinsed afterwards. When the dead or scratched parts are quite dry, the polished parts are carefully cleaned with powder.

Cockroaches may be driven away by putting Scotch or other high-dried snuff around their haunts.

Making Wax Fruits.

Many of our lady readers will doubtless wish to try their hands at wax fruit making this summer and the following on the subject from the *Journal of Chemistry* may be of assistance:

Closely allied to wax flower making is that of wax fruit, some specimens of which are marvelous for the faithful imitation of nature. Here molding or casting is of more importance than in flower making, seeing that accuracy of form is the chief desideratum. Most kinds of imitative fruit are shaped in double molds, one for each half, and, if the fruit is irregular in its curvatures, a tripartite mold may be needed Say that an orange is to be imitated in wax, a smooth, damp surface of sand is prepared into which exactly one-half of a good orange is carefully pressed. A cordon or border of tin or stiff paper is built up around it about half an inch distance from the orange on all sides; plaster of paris in a cream-like consistency is then poured into the cell thus made so as to fully cover the orange; when quite firm enough to handle, this plaster half-mold is taken up and the orange extracted; the orange is turned over in the sand and another half-mold is made in a similar way. Whether fruit is cast solid or hollow, depends mainly on the size; if large the mass would be heavy and much wax wasted by solid casting; in this case a core of some rough material is fixed in the middle of the mold, which gives a cavity to the middle of the fruit.

Soft kinds of fruit, such as plums, cherries and ripe pears, and some hard and unyielding fruits, require special management to extricate them from the half-mold without injury to the fruit on the one hand or to to the mold on the other. Pomegranates; medlars, pine-apples, etc., require molds in more than two parts Occasionally elastic molds of glue are found advantageous. Generally speaking, the color of the wax employed is that of the lightest parts of the fruit, the deeper tints being afterward laid on with brush and pencil. The chief pigments employed are such as burnt and raw umber and sienna, chrome yellow, red lead, prussian blue, carmine, lake, etc., greens being produced by various mixtures of blue and yellow.

Certain small varieties of fruit, such as grapes and currants, are made of glass bulbs, carefully blown to the proper shape; these are fixed by wax to wire inserted into holes, and then dipped into melted wax of the proper color, a very thin coating of which gives the proper kind of semi-transparency to the glass and at the same time a smoothness of surface not inaptly resembling that of the natural fruit. The fastenings of the various fruits to imitative stems, leaves, leaflets, etc., is an affair of wires, silken thread, strips of green paper, white flock, arrow-root-paste, gum-mastic, varnish, with other simple materials and tools used in artificial flower making.

VARNISH BRUSHES.—All varnish brushes ought to be made of long white hairs of the best quality, and, for the general purposes of varnishing, have a good regular spring, with about one-fourth or fifth part worn off flat, sharp, and thin at the point, so as to lay on the varnish smoothly and regularly. As the beauty of varnishing depends in a great measure on the brush, as well as the manner of laying it on, great care is also necessary that no *oil brush* be put into varnish; therefore, all brushes worn down in oil color, and intended to be put into varnish, ought previously to be well washed in turpentine, squeezed and dried with a clean linen rag, or well washed with soap and hot water, rinsed in clean warm water, and made perfectly dry. The best method of keeping oil varnish brushes, when not in use, is to bore a hole through the handle, and put a wire skewer through it, and so suspend the brush, in a narrow tin pot containing varnish of the same sort as it was last in, taking care that the varnish in the pot covers the hairs of the brush up to the binding, and no higher. Brushes so kept are always straight, clean, pliable, and in good order; whereas, varnish brushes kept in turpentine become hard and harsh, and however well stroked or rubbed out, there will still remain turpentine enough to work out by degrees, and spoil the varnishing, by causing it to run streaky or cloudy.

A WEEDING MACHINE.—Our English exchanges contain accounts of a trial of a weed eradicator which took place under the auspices of the Highland and agricultural society. The object of the machine is to remove the weeds which grow among corn crops. A drum, about 24 inches in diameter, is placed between two carrying wheels. Three sets of projecting teeth or iron combs run horizontally along the drum. This, when the machine is in operation, revolves by the action of the gearing, the combs at the same time working in and out of the slits, and over and along the top of the crop. Supposing the ground to be soft, the teeth catch the weeds and pull them fairly out of the soil; but should the soil be hard, as was the case at the trial, and thus have a firm grip of the roots of the weeds, the combs tear off the heads, so that they are prevented from "seeding," leaving the stem in the soil. As the drum revolves and the teeth are drawn in towards the center, the weeds or their heads come in contact with the circumference of the drum, and not being pulled in at the slits are allowed to drop to the ground. The teeth exert little or no action upon the crops, the blades passing between the teeth.

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BE MORE PARTICULAR.—We can only make the changes requested by the following parties on our mail list, when they, or some one else, send us their P. O. address. Otherwise we would have to look over from 7,000 to 10,000 names. Frank Becker, O. Seawell, L. Boyer, M. Levis, F. Anson, and Antonia Byros.

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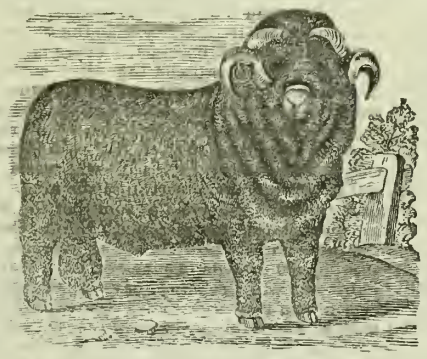
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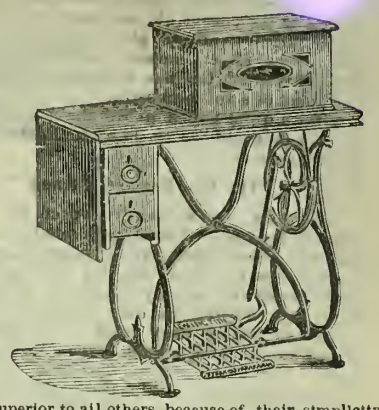
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SAN FRANCISCO.

Authorized Capital, $5,000,000.

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MANAGING DIRECTOR.....C. J. CRESSEY.
CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

The Bank was opened on the first of August, 1874, for the transaction of general banking business.

California Farmers' Mutual Fire Insurance Association.

No. 38 California Street, Grangers' Building.

CAPITAL, $200,000, GOLD.

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G. P. KELLOGG.....TREASURER
A. W. THOMPSON.....ATTORNEY
FERD. K. RULE.....SECRETARY

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G. P. KELLOGG.....	Salinas	G. W. COLBY.....	Butte Co
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A. B. NALLY.....	Santa Rosa	E. W. STEELE,	S. L. Obispo
A. W. THOMPSON.....	S. F.	C. S. ABBOTT.....	Monterey
A. D. LOGAN.....	Colusa	DR. T. FLINT.....	Hollister

Statement, December 31st, 1875.

TOTAL RISKS WRITTEN.....	$3,845,189.00
TOTAL PREMIUMS.....	79,301.72
LOSSES PAID.....	821.00
ASSETS DEC. 31st, 1875.....	170,907.41

☞ Farm Property insured at actual cost on the Mutual Plan. Other desirable property insured, and rated according to merit.

WASHINGTON COLLEGE,

WASHINGTON,

Alameda County, Cal.

THE NEXT TERM OF THIS INSTITUTION WILL COMMENCE ON THURSDAY,

JULY 27th, 1876.

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With Quick Dispatch.

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$1.50 & $2 per day. Free Coach to the House.

H. C. PATRIDGE, - - - Proprietor

[Continued from page 113.]

And so the cheery old soul rambled on in her family history and we gladly listened to her, and to the sweet musical performance of a newly invented German instrument that gives the effect of a full orchestra.

After a quiet half hour we shake hands with our old lady and go to join our husbands and take dinner at

"The New England Kitchen."

Now you would hardly expect to find a homely Yankee kitchen transplanted and seeming well-rooted there in a shady place, far enough removed from the big distractions to assert itself with a truly rustic air of being at home and knowing its own business. It also further proclaims itself with a sign over the "front stoop"—"Ye Olden Time. Welcome to All."

Miss Southwick of Massachusetts, built the log house at an expense of $1,600, and probably no house of that kind was ever so costly. She had great difficulty in finding workmen who understood her plan, and finally had to help lay the chimney in order to secure somewhat of the old-fashioned shape.

But the visitor to-day finds all in quiet readiness; flourishing posy-beds in the front garden and morning glories and hollyhocks gayly peeping in at the windows in true country style. Passing the low doorway you enter a room intended to represent the kitchen of 100 years ago, and the lively crowd are so busy looking and exclaiming, "O, see this old cradle; the first Yankee cradle and made for Peregrine White, the first baby." It is of oak, very thick and heavy, might last perhaps a thousand years if no accident destroys it. A big rag baby and a wax doll are in the cradle and of course spoil all the sentiment one might wish to feel over this venerable relic.

At the right hand a large fire-place fairly swarms with an assortment of ancient kitchen-things that have stood in the glow of many a rousing old fire, and taken their dumb part in the lives of far off generations. It was pleasant to recall the old-fashioned names of articles and so help out those who had forgotten or never knew the household gods of the great grandmothers. The swinging crane is in place with hooks long and short for different sized kettles, and here they hang as they hung long ago, only empty now and with bits of labels that tell us how early they entered domestic service; but some came over with the first and second Puritans and may have been old even then.

The iron bake-kettle stands on the hearth, the spider, the gridiron, bellows 180 years old, and crane lamps made of iron fashioned like a dish.

The "mantel shelf" is loaded with curiosities: pewter platters, brass candlesticks, ancient foot-rest, some of the first matches ever thought of and the precious tinder box that had the place of honor before matches were invented. Here is "Poor Richard's almanack" tattered and brown with age; the turkey wing for sweeping the hearth, sweet herbs and ears of corn, a tin dinner-horn 150 years old, and its slender "toot-toot" has been sweet music in the ear of many a hungry harvester and tired wood-chopper of pioneer times.

Higher up hang the strings of dried apples and pumpkins, the venerable flint-lock gun and battered powder horn, and hams, red peppers, etc., swing from the rough beams overhead.

Even to mention the most notable relics with their dates and fragments of history would occupy too much space; for not only is this rather large kitchen well filled with the time honored treasures of many a household, but the "keeping room" beyond is equally attractive with its high posted bedstead, tasteful curtains and well kept linen, quilts, etc., made by the skillful fingers that were so busy in the old revolutionary days. On a little table at the foot of the bed stands the writing desk of John Alden, who won the fair Priscilla from Miles Standish, of Puritanic fame, and so made up the little romance that is now so familiar to all readers of Longfellow. The little room is so crowded one is apt to be soon crowded back into the kitchen, and here in the corner sits a fair young lady, dressed as nearly as possible like Mrs. John Adams, and other dames of 1776. She sits behind a patch work quilt that is on the frames and pretty closely rolled up in order to take less room, and she plays at quilting, but the needle is not nimble and some of the visitors who seem acquainted tell her she has been quilting at one little patch for a week or two. And so at the spinning wheel and the little flax wheel, there is no attempt at real work, except when an occasional visitor wants to see how the real homespun yarn was made; and sometimes an elderly lady from the visiting throng will step to the wheel and make it buzz right merrily, at the same time telling the amused crowd how many "hanks" she used to spin for the day's stent.

Joined to this log house is a modern kitchen where dinners are served on the back porch—always the same—pork and beans, brown-bread, white bread and butter, pickles, doughnuts and "punkin" pie. Always the same bill of fare, and always a crowd of eager, hungry people, ready to enjoy the hearty food served on the old fashioned blue dishes, and the good tea and coffee in mugs and queer little cups. It is a nice place to get acquainted, for you wait upon each other, and as the bean platters and pickle dishes circulate you laugh in each others eyes and have a general good time, recalling "the old folks at home."

Cotton Grain Sacks.

"Dealers in this section of country are offering 25 cents per ton to induce farmers to use cotton instead of burlap sacks." At the present time there is a difference of two cents in the price of cotton sacks and burlaps, the difference being in favor of cotton. California will require this year for wheat, barley, oats, rye, beans, corn and other grain, not less than 40,000,000 bags, and probably more. At two cents difference in cost there would be a direct saving to the farmers of $800,000. It seems incredible at first glance that two cents per sack would foot up nearly $1,000,000, but the figures "can't lie."

A Still Further Saving

Would be made by substituting cotton for jute, which is of more importance even than the two cents' saving in the price. These 40,000,000 bags used this year cost primarily not less than nine cents, or $3,600,000, all of which is so much gold sent from California to keep in operation the factories of Dundee and feed tribes in India. Three and a half million dollars paid out to foreign manufacturers and foreign laborers, besides the cost of transportation and commissions. That very respectable sum would hire 5,000 men for a whole year, at two dollars a day, if these sacks were raised and made at home.

Cotton and Jute.

It is to be presumed that jute can be grown as well in California as in India or Louisiana. But it never has been grown, and it seems as if we are as far from a favorable solution of the great sack problem as ever, if burlaps are to be the only sacks used. As to raising cotton, it is no longer an experiment. It will grow almost anywhere in the interior. There is land enough adapted to the cotton plant to raise fiber for a hundred million, or double that amount, of grain sacks. The counties best adapted to cotton growing are San Joaquin, Stanislaus, Merced, Fresno, Tulare, Kern, Los Angeles and San Bernardino. In these eight counties there are no less than 15,000,000 acres of land which will grow cotton, and 10,000,000 acres could be planted to that crop if necessary. Besides these there are many other districts where the soil is suitable to the growth of the cotton plant, but the foregoing are mentioned for the reason that the land is too poor for cereals, and could be more profitably employed in cotton culture.

California and India.

The area of land in California which will produce a good quality of cotton is greater than all the land in India annually devoted to the plant. It has already been demonstrated that land here will produce as good an article, and considerable more in quantity than the richest land in the Mississippi bottoms. There is nothing in the way of prosecuting the enterprise. There are farmers in our own State who were born and reared in the cotton fields of the south, and who thoroughly understand cotton raising in all its ramifications. It has been estimated that Kern island, if irrigated, will yield from 400 to 500 pounds of cotton to the acre. Contrast this with the yield of some of the cotton growing States; for instance, North Carolina produces but 170 pounds on an average, Mississippi 200 pounds, Tennessee 120. This year California will probably have 1,000 acres in cotton, and it is safe to say that with a home market where the product of the cotton fields could be disposed of as readily as grain, double that amount of land would have been put in.

Superiority of Cotton Sacks.

If grain merchants are willing to pay 25 cents per ton more for grain in cotton sacks, as some of them have already proposed to do, here is a direct inducement to farmers in addition to the advantages already set forth to substitute cotton for jute. There are already several sack factories in the State, one of them at Oakland, doing a good business. Machinery for the manufacture of the raw cotton staple is not as costly as woolen mills, and capital could readily be found willing to embark in an enterprise which has a scope for profits, whenever the farmers will signify their willingness to adopt cotton sacks. Such an enterprise, once thoroughly inaugurated, would retain at home something like $5,000,000 annually, which sum is now sent out of the State to pay foreign manufactures and foreign labor. It is a disgrace to our boasted enterprise that the sacks in which the California grain crop is contained are shipped twice around the Horn and over two of the longest ocean roads in the world, when we have the soil for producing the material, capital sufficient to carry on the manufacturing and an abundance of anxious labor. —*Kern Courier.*

"HURRAH FOR THE PACIFIC RURAL PRESS."—EDITORS PRESS:—The RURAL PRESS of July 1st is a grand issue. That number alone is worth the yearly subscription. There is more genuine true patriotism crowded into its columns than all the political 4th of July orations that have ever been delivered. The farmers of California ought to be proud of their paper, for it is truly free from political fanaticism and strife, while at the same time it is patriotic in the fullest sense of the word, for it works for the bone and sinew of the nation, namely: the agricultural and laboring classes. May the PACIFIC RURAL PRESS have a long and prosperous career.—M. D. M., Santa Maria, Cal., July 21st.

The West Side Wheat Crop.

Some idea of the large amount of wheat raised on the west side of the San Joaquin the present season may be gained from the following figures and facts, which the Stockton *Independent* says may be relied on as accurate: The shipments from Hill's Ferry to date have been 176,886 sacks of wheat, while there are yet remaining in the warehouses at that place 20,875 sacks. It is estimated that two-thirds of all the crop to come in at this place have been received. There have been shipped from Salt slough 12,000 sacks; from Crow's Landing, 50,174 sacks, with 16,700 sacks in store, and 2,000 sacks estimated yet to come; from Grayson, upper landing, 60,000 sacks, with 2,000 sacks in store; Grayson, lower landing, 20,251 sacks, with 11,218 sacks on hand; San Joaquin city, 100,000 sacks; with 10,000 sacks on hand. From Patterson's Landing it is estimated that 100,000 sacks have been shipped, an estimate which is probably a very low one. These figures give the total number of sacks shipped and in store, aside from the amount yet to be brought in to the landings, at 519,995, equal to about 36,393 tons, worth at the present prices, nearly $1,000,000. It is calculated that this is about two-thirds of the whole amount of the yield of the West Side, south of San Joaquin city, so that the total valuation of the West Side crop will be about one and a half million dollars, a very nice sum for a district that has yielded absolutely nothing for two or three years. The majority of the wheat here mentioned was raised in Stanislaus county, although a portion of it came from Merced and San Joaquin counties. The yield is about half the amount of that of 1872, which was considered a very fair crop.

Notices of Recent Patents.

Among the patents recently obtained through Dewey & Co.'s SCIENTIFIC PRESS American and Foreign Patent Agency, the following are worthy of mention:

COFFINS.—Wm. O'Day, S. F. The object of this invention is to cheapen the manufacture of wooden coffins by providing a simple and convenient method of constructing and applying the ends of that class of coffins or caskets which is made with octagonal ends. Ordinarily each piece which is used in the formation of the octagonal ends is cut and fitted separately so that it requires much labor and nice workmanship to properly construct a coffin. This is owing to the number of mitor joints to be fitted and the taper of the casket, which necessitates each piece to be tapered and fitted correspondingly. By this invention an octagonal form of any given length is first constructed, either tapering or otherwise, according to the shape of the coffins to be made. This form is made of the proper size to serve as a pattern upon which to fit and put together in long strips the boards which are to form the ends of the coffins. The inventor then takes the long boards and mitere, fits and nails them together so as to provide an octagonal end piece of any desired length, which can be cut into short lengths to form the ends after they have been fitted to the body of the coffin. By this arrangement the long end pieces can be put together at a mill cheaply, and as the pieces are put together on a form no mistake can happen. The work is therefore done more cheaply, and all that the coffin maker has to do is to construct the box or body of his coffin to conform to the ends and then put them together, thus enabling him to produce a cheaper and at the same time a neater coffin than when the pieces have to be fitted singly. The arrangement also enables the maker to construct the coffin out of boards which have been stained and polished in the long piece before they are cut up.

FARM GATE.—Richard C. Whetlock, Pacheco, Contra Costa county. The object of this invention is to provide a cheaply constructed farm gate which can be opened and closed by persons on horseback and in vehicles, without the necessity of their dismounting. A person approaching the gate has only to push a crank on the shaft, on whichever side of the gate he happens to be, and turn it from him; this causes a shaft to rotate and opens the gate. When he has passed through, a similar winding of the opposite crank rotates the shaft in an opposite direction and closes the gate.

LOCK.—J. H. Woodrum, Portland, Oregon. This invention relates to an improvement in locks, and it consists in a lock operated by a knob from the inside of a door in the ordinary way, and by an adjustable spindle carrying combination rings and devices, upon the outside of said door, whereby said lock may be operated from either the inside or outside, as an ordinary bolt, or be locked from the outside by a combination locking device.

BARREL TAP AND FAUCET.—Elisha T. Barlow, S. F. This invention relates to that class of permanent taps for beer and other barrels in which the valve admitting the liquid to the sauce is arranged on the tap, and is operated by an independent key or implement after the faucet or tube through which the liquid is drawn has been secured in place on the tap. The inventor produces a combined tap and faucet that can be cheaply manufactured and which is not likely to get out of order. A common bent tube can be used instead of a faucet, and will serve every purpose as a conductor of the liquid.

CHOPPING MACHINE.—N. A. Olsen, S. F. This invention relates to an improved machine for chopping meats and other substances into fine pieces, and it consists of a series of radial knives, which are secured to the upper end of a stem. This stem passes down through a hole in the center of the chopping block, and is operated by a cam and tappet below the block, by which the knives are given the proper chopping action. The curved face of the cam moving against the under face of the tappet, will also partially rotate the spindle and knives during each lift, so that the knives are continually shifted, and thus drop in a different spot each time, thus giving the best possible effect of chopping knives. The force of the drop can be regulated as desired by weighting the lower end of the spindle. The knives are lifted and dropped vertically, and at the same time are shifted after each stroke, thus rendering them quite effective in their action.

General News Items.

THE small-pox epidemic seems to be on the decrease in this city.

THEY are having more hot weather in New York and Philadelphia.

THE *Sumatra* will take from us 400 Chinese paupers and 26 lepers.

THE English education bill has passed the House of Commons.

OVER 40 fisherman perished in a gale on the coast of Great Britain, last week.

THERE is great financial disorder in India owing to the recent fall in the value of silver.

THE sum of $1,614,531 was shipped in treasure overland by Wells, Fargo & Co., last month.

A BERLIN dispatch says it seems certain that the project to solve the Eastern question by a conference of the powers has been abandoned.

PROPERTY owners and residents of North Beach are making a determined effort to have the Selby smelting works removed from that locality.

AN Ottawa dispatch says the British frigate *Amethyst* will be at San Francisco in waiting to convey Earl and Countess Dufferin and party to British Columbia.

CHARLETON & Co., of Staunton iron works, Hartlepool, England, have suspended. Liabilities, $900,000; assets subject to realization said to be much greater.

AN eating house is to be opened in the vicinity of the stock boarde by some enterprising ladies who want the stock sharps to drink coffee instead of liquor.

MAJOR-GENERAL IRWIN MCDOWELL, the recently appointed commander of the department of the Pacific, was accorded a public reception on his arrival on Tuesday evening last.

A COLLISION occurred on Monday night on the Somerset & Dorset railway, near Redstock, between a London train and an empty excursion train. Twelve persons were killed and 30 injured.

GOVERNOR CHENEY has asked the New Hampshire delegation in Congress, for legislation punishing willful interference with ocean cables. This action is owing to the numerous breaks in the direct cable.

AN official call has been issued for proposals for five per cent. bonds of the funded loan of 1881, to amount to $2,160,000, to enable the Secretary of the Treasury to pay the judgments of the commissioners of Alabama claims.

THE Secretary of the Treasury will probably sell about $2,200,000 gold early next week. The proceeds of the new five per cent. bonds which he will sell Saturday for account of the Geneva award, he will award as for gold, in sums not less than $500,000.

THE House Judiciary Committee has agreed to report a joint resolution directing the Secretary of the Interior to withhold the patent from the New Idria mining company for the Panoche Grande property until Congress can make further investigation and determine whether the company or McGarrahan is owner.

IT is reported from Sweetwater, Texas, that some 3,000 Indians encamped at the North Fork of the Red river, near Fort Elliott, are preparing for the war path, and the citizens of that vicinity fear a general massacre, as the troops have been sent to reinforce Crook. Orders have been given that Indians returning to Fort Reno for rations shall be disarmed.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

Newspaper Fileholders.

Dewey's new elastic fileholders (black walnut), size of the PRESS, *Harper's Weekly* and *Scientific American*, for 50 cts. Larger sizes, to suit any newspaper, 75 cts. By mail, postpaid, 10 cts. extra. Cash with all orders. Patent allowed. Address, DEWEY & Co., Publishers, San Francisco.

ANY PERSON receiving this paper after giving an order to stop it, may know that such order has failed to reach us, or that the paper is continued inadvertently, and they are earnestly requested to send written notice direct to us. We aim to stop the paper promptly when it is ordered discontinued.

SEWING MACHINES.—We have a first-class machine we wish to dispose of on favorable terms. Apply at this office.

J. M. MCARTHUR is no longer agent in Southern California or Arizona for us.—DEWEY & Co.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

San Francisco, Wednesday, August 9th, 1876.

The week has been without notable features in trade. Prices have fluctuated within narrow limits and values have been generally well maintained, although the feeling has been quiet and in some branches dull.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	Cal. Average.			Club.		
Thursday....	9s	6d@ 9s	9d	9s	8d@10s	2d
Friday.....	9s	6d@ 9s	9d	9s	8d@10s	2d
Saturday.....	9s	6d@ 9s	9d	9s	8d@10s	2d
Monday.....	9s	6d@ 9s	9d	9s	8d@10s	2d
Tuesday.....	9s	5d@ 9s	8d	9s	8d@10s	1d
Wednesday....	9s	5d@ 9s	8d	9s	8d@10s	1d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.			Club.		
1874	11s	3d@11s	4d	11s	7d@12s	3d
1875	10s	9d@12s	—	12s	—@12s	6d
1876	9s	5d@ 9s	8d	9s	8d@10s	1d

The Foreign Review.

The cable quotation showed on Tuesday a decline of 1d on outside rates for both California Average and Club. On Monday the following review, telegraphed from the *Mark Lane Express* of Aug. 7th, was received:

"More lively business exists in foreign Wheat, and millers have operated with increased freedom. There has been no further quotable decline. Supplies of Barley continue scanty, and values are therefore maintained. Imports are momentarily exceeding the requirements. Maize sells steadily at 6d, a decline on the week, with fair inquiry for distant shipments of floating cargo. The trade has been decidedly steady. Lately Wheat is showing an improvement of fully 6d@ 1s per quarter, owing probably to the unsettled weather, and some slight revival of the Continental demand. Prices on the Continent have improved lately, because the yield in France proves disappointing. Oats dropping in tendency."

Freights and Charters.

Nothing new is reported in freights and charters. The list of vessels now in port loading Wheat or under engagement to load numbers 39, registering 44,500 tons, with a carrying capacity of 1,300,000 centals. The engagements of the week have been as follows: Br ship *Castleroy*, 1,164 tons, Wheat to Cork for orders on owners' account. Br ship *Olive*, 847, Wheat to Cork for orders, prior to arrival, £3 10s; Br bark *Casma*, 649, Wheat to Liverpool, prior to arrival, private; Italian ship *Lycka Till*, 894, Wheat to Cork for orders, U. K. or Continent, prior to arrival, £3 10s; Br ship *Dryad*, 1,035, Wheat to Liverpool, prior to arrival, £3 2s 6d; Br ship *Bedfordshire*, 1,155, Wheat to Cork for orders, prior to arrival, £3 2s 6d; Br bark *Ardvar*, 858, Wheat to Cork for orders, prior to arrival, private; Norwegian bark *Johan Irgens*, 753, Wheat to Cork for orders, private; French bark *Cilaos*, 538, Wheat to Belle Isle for orders, private; Br ship *Pizarro*, 1,381, Wheat to Liverpool, private. The disengaged tonnage in port is a total of 27 vessels, aggregating 30,273 tons.

The Wheat Trade in New York.

A dispatch from New York dated Aug. 6th says: The most conspicuous feature in business circles is reaction from the long continued depression in Breadstuffs. Flour has advanced 25@30c per barrel, and Wheat 10c per bushel, from the lowest point of depression. This improvement has been brought about by several causes, prominent among which is the improvement in the temperature and the consequent improvement in the quality of produce coming forward. The new Wheat coming forward is of exceptionally fine quality, and fetches $1.08@1.30. As for crop prospects, they are in the main favorable for an average yield and of excellent quality.

The Chicago Trade.

A dispatch from Chicago, August 6th, says: Cash Wheat to-day closed at 89¾, against 86⅛ last Saturday. Cash prices and future have been gradually approaching each other, which indicates that the prospect for a rise in the near future do not seem to be good. At the same time there is a firmer tone to the market. There is no appearance of a panic. Confidence in the condition of elevator Wheat is restored, and the coming crop will not probably be as large as the fine harvest weather and anticipation have warranted. Wheat cannot be shipped from here with any certainty of fair returns, and were it not for the exceedingly and unprecedentedly low freight to New York, prices would rule considerably lower than now. Farmers are busy securing their grain, and accurate returns can hardly be expected for some weeks, though various reports are circulated on 'Change by the various interests. Corn has fluctuated very little during the week, and closed to day only an eighth higher than last week. The prospects for a large crop of this cereal are not yet diminished, though the possibility of early frosts and other contingencies which diminish the crop suddenly and perceptibly have a tendency to sustain prices. Receipts and shipments continue large, averaging nearly a quarter of million bushels daily. Oats are rather higher, and have been most of the week. Trading is rather restricted, and confined principally to cash operations. Rye and Barley are dull, with no tendency to higher prices.

The Season's Exports.

The clearance of Wheat vessels from this port continues. Four cargoes, aggregating 121,612 ctls, have cleared thus far during the month of Augnst. The following tabular statement from the *Post* will show the amount of Wheat shipped from this port by sail for the season to date:

	Ctls.	Value.
Amount shipped	808,806	$1,264,089
Amount afloat	808,806	1,264,089
To Liverpool	179,347	292,587
To Cork	435,897	671 585
To Antwerp	171,650	264,917
To Falmouth	21,412	36,000

It will be observed that a large portion of the exports go to the Europesu continent direct. The unsettled condition of affairs in the far East naturally leads to a concentration of food supplies in the commercial centers of Germany, etc. The wants of England are large, however, and it is now to the United States, rather than to Russia, that her people look for breadstuffs. Of the 21,702,299 centals of Wheat imported into Great Britain during the first half of the year, no less than 10,748,803 centals, or about 50 per cent. of the whole, was drawn from the United States, against only 3,410,241 ctls from Russia. During the same period last year the United States contributed 58⅜ per cent. of the total English importa, and in 1874 64⅜ per cent. In regard to the probable requirements of Great Britain during the coming season, a London correspondent, writing under date of July 15th, says: "Under any circumstances, however, we shall require a large supply of foreign produce and an amount probably not much short of the importation during the season now approaching its termination."

The Crop.

The *Record-Union* remarks as following concerning an apparent shortage in this year's Wheat crop from the early estimates: "There is a general and we think a universal disappointment throughout the State at the outcome of the Wheat crop of the present year. The season opened up splendidly with a heavy growth of straw, and to all appearance a promise of an extra heavy crop of grain. The result shows that the long heads and apparently well filled husks were not what they appeared—that the kernels are not as plump as was expected, and not as many of them, there being many places for the kernel without any kernel in it. Some think there was too much dampness in the soil generally to make good crops, and cite the fact that the low, damp river bottoms of this State have long since been abondoned for Wheat raising, because, although the straw grew so long as to fall down, and the heads looked full and were long, the yield of Wheat was most always very light. The present season was so wet, and the dampness was kept in the soil so late throughout the State, that the soil generally was rendered like that of our river bottoms, and produced a great growth of straw and plenty of weeds, but the Wheat failed to fill out, and consequently the general disappointment."

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week July 19.	Week July 26.	Week Aug. 2.	Week Aug. 9.
Flour, qnarter sacks	26,202	30,811	34,412	153.061
Wheat, centals	243,447	227,663	269,425	261,400
Barley, centals	32,267	27,767	64,965	65,018
Beans, sacks	1,150	1,093	415	40
Corn, centals	3.406	1,482	2,342	3,001
Oats, centals	2,706	3,945	3,103	5,549
Potatoes, sacks	17,357	16,248	13,496	14,254
Onions, sacks	770	1.182	1,086	1,178
Wool, bales	2,312	2,468	2,059	2,360
Hops, bales	93	4	1	38
Hay, bales	2,545	2,226	2,983	2,691

Bags—Bags are quotable lower again, 12¼@12½c, according to terms, being the prices given for standard Wheat. The supplies expected are now well in, and the folly of the attempt to figure out a great deficiency, which we pointed out at the time the estimates were made, clearly appears. The trade must now come on a basis of actual requirements; the speculative element is fairly overcome. Standard Gunnies are in large supply and are cheaper.

Barley—Barley has been arriving very freely and the market is quieter. The price is still about $1 for good Feed. We note sales: 2,360 sks Coast Feed, in three lots, at $1 per ctl; 400 old Brewing, $1.32½, all half silver; 800 do Bay Feed, $1, gold; 1,500 do Coast, $1, all silver; 800 sks choice at $1, gold; 500 do fair, $1.02½, silver; 1,200 do good, $1, half silver; 600 sks good Feed at $1, half silver; 1,200 do fair do, $1, all silver; 600 sks Coast Feed, at $1, half silver; 150 do do, $1.07½, half silver; 600 sks choice new, $1, gold.

Beans—Beans are nominal. The first new Bayous arrived during the week and sold at $4.50 per ctl.

Corn—Corn is unchanged. We note sales: 300 sks good large Yellow, $1.20 per ctl, half silver; 200 sks small Bay Yellow, $1.30 per ctl, half silver; 250 sks Bay Dent, $1.30; 100 do large White, $1.25 per ctl, both lots half silver.

Dairy Produce—Butter is unchanged. The supply of fresh Roll keeps along about as needed. The trade is temporarily dull in all dairy goods. Cheese is in large stock.

Eggs—Eggs are one point lower. The price is now 37½c per doz.

Feed—Bran has advanced again. One day during the week sales were made at $15 per ton, but the rate is now placed as high as $17. Oil Cake Meal is cheaper. Hay maintains its former range, viz.: $8 to $13, according to quality. Salos of several cargoes of stock and mixed at $10@12; 20 tons Wild Oat at $11; 38 tons common Wheat, $9.50; 16 do fair Wild Oat and Wheat $11; 38 do do, $11.50; 34 do good Wheat, $12; 40 tons good Wheat, $13; 12 do do, $13; 30 do fair Wheat, $12.50; 25 do good stock, $11; 38 do do, $10.50; 20 tons fair Wheat and Barley, $10; 27 do choice Wheat, under sharp competition, $13.50 per ton.

Fruit—Peaches are getting a little better prices today. Grapes are becoming very abundant and much cheaper. Fruit prices may be found in our lists below.

Hops—Receipts are very light and local prices are unchanged. Emmett Wells reports the New York trade, for the week ending July 28th, as follows: A moderate trade has been doing this week, both for export and consumption. Prices remain quotable unchanged. The reports from the Hop districts of this State are anything but favorable. According to present estimates, the yield per acre will fall short one-third to one-half of last year's, though it is believed a good proportion of this decrease will be made up by the increased acreage that will come into bearing this fall; so that, viewing the prospect from the present standpoint, we are likely to grow about as many pounds of Hops this year as last. London letters and cables report a slight improvement in the English plantations. Germany still complains of a very poor prospect. Present indications are that the opening prices will be considerably better than last fall, and we think growers will do well not to ho in a hurry about contracting.

Oats—Oats are in good demand at improved prices. We note a sale of 240 sks choice old at $1.75 per ctl.

Onions.—Onions are very low, and Reds are sold at almost any price. A nominal quotation being 50c per ctl.

Potatoes.—Potatoes are not greatly changed from last week. We note sales as follows: 500 sks good Halfmoon bay at 70@80c; Early Rose 70@75c. Sweet Potatoes are now sold at 2½c on the wharf.

Provisions.—Beef and Mutton are low and abundant. Hogs are firm and in large demand for packing. Cured meats and Lard are in strong demand at prices showing an advancing tendency.

Poultry.—Hens, Roosters and Broilers are advanced in prices to-day.

Rye.—Rye is weak and lower. During the week there were receipts of 3,000 sks in one consignment, but it is reported that it will be warehoused and not put upon the market.

Vegetables.—Rates remain generally unchanged except in a few articles. Tomatoes are at their low point and are quotable from 25 to 37½c per box. Marrowfat Squash declines to $10 per ton. Other prices may be found below.

Wheat.—Wheat is stationary. We note sales during the week of 520 tons in two lots at $1.52½c; 600 otls ordinary Shipping at $1.47½c; 4,000 sks choice Shipping at $1.52½c; 800 do good do, $1.50; 5,300 do choice White Australian to a miller, $1.57½c; 2,000 ctls common Shipping at $1.40; 925 do good do, $1.50, and 200 do superfine at $1.35; 10,000 sks good Shipping at $1.52½c; 4,000 do do, $1.57½c; 2,000 do do do, $1.50. The millers are paying $1.55 per ctl for choice lots of new.

Wool.—We learn of no change in current prices. The Fall clip is making its appearance. We hear of it being put in store in San Diego. It has begun to arrive in Stockton, a few loads having been brought in on Saturday. A quantity is said to be awaiting shipment at the upper river landings. Several of the sheep men of Tulare county have commenced to shear, the hot weather making it a necessity. The sheep are generally fat and their fleece heavy, the feed having been abundant throughout the Spring.

The Eastern Wool markets are reported by telegraph as follows:

New York, August 6th.—The Wool market has shown more activity this week than for years past. The prevailing low prices, which has been a noticeable feature for some months, have finally, with the prospect of an early advance, been the means of forcing manufacturers into the market. During the past few days there has been considerable excitement, manufacturers buying largely, and prices have advanced. Sales of Ohio have been made at 38c, and most holders ask 40c. Spring California has also advanced a trifle, and with light stocks in this and neighboring markets prices are likely to go still higher. With a few exceptions the sales of the week have been to manufacturers direct, and though there is at present little or no demand for goods, consumers have purchased knowing that the prices of raw material are low, and that any likely change will be against their interest. Foreign Wools, both clothing and carpets, are exceedingly dull, but prices show no change. The sales for the week are: 5,000 lbs Capo, at 22c; 18,000 lbs spring, at 15@16½c for burry, and 18@22½c for free; 31,000 lbs Colorado, 18 @19c.

Boston, August 6th—The demand for Wool has been quite active, and the sales, comprising 4,781,799 lbs, are the largest ever reported in a single week. The business of the past four weeks has in fact had no precedent in the history of the trade, comprising 12,461,200 lbs, all of which, with some trifling exceptions, passed into the hands of manufacturers. Prices of both goods and Wool are now lower than for many years, and there is no doubt that this is the reason why manufacturers operated with such confidence. The activity and improvement, however, have been rather unexpected by both dealers and manufacturers. The demand has been principally for Ohio and Michigan fleeces, and California, although all kinds have been in better request and are held with more firmness. The sales of California have been 1,912,000 lbs. Some round lots of very choice Northern have been sold at 26@29c, but the principal transactions were in the range of 18@25c. The market is very firm, and desirable lots are held for full prices. Some lots of inferior have been sold at very low prices. The demand for pulled has improved, and is in sympathy with the active movements of fleece. The sales include 297,800 lbs. Some choice Maine superfine sold at 40c, but the principal sales have been in the range of 30c and 37c for superfine and X.

S. F. Retail Market Rates.

Wednesday m., Aug. 9, 1876.

POULTRY, GAME.		Cod Fish, lb	12 @ —
Chickens	50 @1 25	Lake Big. Trout	— @ —
Eggs, Hens	— @ 50	Beef, tend, lb	20 @ 25
do Ducks'	— @ 40	Corned, lb	8 @ 10
Turkeys, lb	25 @ —	Smoked, lb	— @ 15
Ducks, each	1 00 @ —	PorterHouseSt'k	20 @ 25
Geese, wild, pair	— @ —	Sirloin do	15 @ 18
Tame, pair	1 50 @2 00	Round do	10 @ 12
Snipe, doz	— @ —	Pork, rib, etc., lb	12½@ 15
do English	— @3 00	Chops, do, lb	15 @ 20
Quail, per dozen	— @ —	Veal, lb	12½@ 15
Prairie Ch'k s,pr	— @ —	Outlet, do	15 @ 20
Hares, each	25 @ 35	Mutton-chops, lb	6 @ 9
Rabbits, pair	37 @ —	Leg Mutton, lb	10 @ —
Squirrels each	10 @ —	Lamb, lb	12 @ 15
Hams, Cal. lb	16 @ 20	Antelope	— @ —
FISH, MEATS, ETC.		Tongues, beef	75 @1 00
Flounder, lb	20 @ —	do, do, smoked	75 @1 00
Salmon, lb	— @ 15	Tongues, pig, lb	12½@ —
Smoked	— @ 10	Bacon, Cal., lb	16 @ 20

FRUITS, VEGETABLES.			
Apples, pr lb	5 @ 8	Cauliflower	10 @ 15
Pears, per lb	5 @ 8	Green Peas lb	4 @ 6
Apricots, lb	5 @ 8	Cabbage, per hd	— @ —
Peaches, lb	4 @ 6	Oyster Plant, bn	— @ 10
Plums	4 @ 10	Carrots, lb doz	— @ 25
Pine Apples, each	50 @ 75	Celery, lb dz	75 @1 00
Grapes	6 @ 20	Cress, lb doz bun	20 @ 25
Bananas, lb doz	50 @ —	Onions	2 @ 3
Muskmelons each	15 @ 35	Turnips, lb doz bunches	— @ 25
Watermelons	25 @ 50	Brussels Sprouts	— @ —
Blackberries	12 @ 15	Eschalots	— @ 35
Cal. Walnuts, lb	20 @ 30	Dried Herbs, doz	30 @ 50
Cranberries, Org., do Eastern qt	— @ —	Garlic lb	10 @ —
Huckleberries	— @ 25	Green Corn, doz	20 @ 50
Strawberries, lb	12 @ 15	Lettuce, lb doz	25 @ 35
Raspberries, lb	20 @ 25	Mint, lb bunch	— @ 12½
Gooseberries	— @ —	Mushrooms, lb	— @ —
Currants	4 @ 5	Horse radish, lb	15 @ 20
Cherries, lb	10 @ 30	Okra, dried, lb	— @ —
Nectarines	10 @ 12	Pumpkins, lb	5 @ 6
Pomegranates	— @ —	Parsnips, doz	— @ 25
Oranges, doz	50 @1 25	Parsley	12½@ —
Lemons	75 @1 00	Pickles, fresh, lb	— @ —
Limes, per doz	— @ 25	Radishes, doz	20 @ 25
Figs, dried Cal	12½@ 15	Sage	— @ 25
Figs, Smyrna, lb	25 @ 35	Summer Squash	3 @ 5
Asparagus, lb	6 @ 8	Marrowfat, do	5 @ —
Artichokes, doz	25 @ —	Hubbard do	— @ —
do Jerusalem	— @ —	Tomatoes lb	4 @ 8
Beets, lb doz	20 @ 2	Mangoes, lb doz	— @ —
Potatoes, lb	2 @ 3	Spinage lb	— @ 12
Potatoes, sweet	8 @ 10	Rhubarb	4 @ 6
Broccoli, each	10 @ 15	Green Chilies	— @ 25

Retail Groceries, etc.

Wednesday, M., Aug. 9, 1876.

Butter, Cal. choice	30 @ 37	Bowen Bro. large can per doz	5 00 @— —
Cheese, lb	18 @30	Small, do	2 50 @— —
Eastern	25 @30	Bowen's Cream Tartar lb	— @ 75
Lard, Cal., lb	— @18	Cal'd Oysters, dz	2 00 @3 50
Eastern	20 @25	Symn. S F. Gol'n	75 @1 00
Flour, ex. fam, bl	6 25 @6 50	Dried Apples	10 @ 12
Corn Meal, lb	2½@ 3	Dried Peaches	12½@ 14
Sugar, wh. crsh'd	12½@13½	Dried Prunes	12½@ 14
do lt. brown, lb	8 @ 9½	Dr'd Figs, Cal	9 @ 10
Coffee, green, lb	22 @ 35	Dr'd Peaches	11 @ 15½
Tea, fine blk,	50, 65, 75 @1 00	Oils, Kerosene	30 @ 40
Tea finest Jap,	55, 75, 90 @1 00	Wines, Old Port	3 50 @5 00
Candles, Adman'e	15@ 25	do Fr. Claret	1 00 @2 50
Soap, Cal., lb	7 @ 10	do Cal. dz	hot 3 00 @4 50
Rice, lb	8 @ 12½	Whisky, O.K. gal	3 50 @5 00
Yeast Powders, dz	1 5 @2 00	Fr. Brandy	4 00 @8 00

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by Sutro & Co.]

San Francisco, Aug. 9, 3 p. m.

Legal Tenders in S. F., 11 a. m., 89¾ to 90¼. Silver, 5⅛@6.

Gold in N. Y. 111¾.

Gold Bars, 880 to 890. Silver Bars, 16@30 per cent. discount.

Exchange on N.Y., 50-100 per cent. premium for gold; on London bankers, 49; Commercial, 49¼; Paris, five francs per dollar; Mexican dollars, 12 per cent. discount.

London — Consols, 93 5-16 93⅛; Bonds, 102⅛

Quicksilver in S. F., by the flask, per lb, 45c.

GENERAL MERCHANDISE.

WHOLESALE.

Wednesday m., Aug. 9, 1876.

BAGS.		Sperm, crude	1 60 @1 65
Eng. Stand Wht	12¼@12⅝	do bleached	1 90 @2 25
Neville & Co's—		Coast Whales	47½@ 50
Hand Sewed	12¼@12½	Polar, refined	— @ 50
24x36	— @—	Lard	— @1 20
21x40	— @—	Oleophine	— @ 28
Machine do 24x40	— @15½	Devoe's Bril't	25 @ 27
" " 23x40	14½@—	Long Island	— @ 25
" " 22x40	14 @—	Eureka	26 @ 27
" " 22x36	12 @12¼	Devoe's Petro'm	25 @ 27½
Flour Sacks ⅛s	9 @11	Barrel kerosene	23 @ 25
" " ¼s	6 @ 7	Olive	— @3 50
" " ⅛s	4½@ 5	Downer Kerose'e	— @ 37½
Hessian 60-in	12¾@14½	Elaine	38 @ —
do 45-in	10 @10¾	Gas Light Oil	23 @ 25
do 40-in	8½@9	**PAINTS.**	
Wool Sacks, 3½ lbs	45 @50	Pure White Lead	9¾ @10¼
do 4 "	50 @52½	Whiting	— @ 1¾
Stand. Gunnies	11½@12	Putty	4 @ 5
single seam do	— @—	Chalk	— @ 1½
Bean Bags	7 @ 8	Paris White	— @ 2½
CANNED GOODS.		Ochre	— @ 3½
Ass't'd Pie Fruits in 2½ lb cans	2 75 @ 3 00	Venetian Red	— @ 3½
do Table do	3 75 @ 4 25	Red Lead	10 @ 11
Jams & Jellies	4 25 @ —	Litharge	10 @ 11
Pickles ½ gl	— @ 3 50	Eng. Vermillion	—@1 25
Sardines, qr box	65 @ 1 90	Averill Chemical Paint, per gal.	
do hf boxes	3 00 @— —	White & tints	2 00 @2 40
COAL—Jobbing.		Green, Blue & Ch Yellow	3 00 @3 50
Australian, ton	8 75 @ 9 00	Light Red	3 00 @3 50
Coos Bay	— — @ 9 00	Metallic Roof	1 30 @1 60
Bellingham Bay	— — @ 9 00	**RICE.**	
Seattle	— — @ 9 00	China No. 1	5½@ 6
Cumberl'd	—14 00 @16 00	Hawaiian, lb	7½@ 7¾
Mt. Diablo	8 75 @7 75	Carolina, lb	10 @
Lehigh	— — @22 00	**SALT.**	
Liverpool	10 00 @11 00	Cal. Bay, per ton	10 00@14 00
West Hartley	— — @14 00	do Common	5 00@ 7 00
Scotch	9 00 @10 00	Carmen Island	12 00@15 00
Scranton	13 00 @16 00	Liverpool fine	22 50@25 00
Vancouver's Isl	10 50 @ 2 00	**SOAP.**	
Charcoal, sk	75 @ —	Castile lb	10 @ 11¼
Coke, bbl	— @ 60	Common brands	4½@ 6
COFFEE.		Fancy do	7 @ 9
Sandwich Island	@ 21½	**CANDLES.**	
Costa Rica per lb	22½@ —	Grant's	16 @ 16½
Guatemala	@ 22½	Mitchell's	18 @ 20
Java	— @ 30	**SPICES.**	
Manilla	— @ 21½	Cloves lb	45 @ 47½
Ground in cs	25 @ —	Cassia	23½@ 26¼
Chicory	27 @ —	Citron	28 @ 30
FISH.		Nutmegs	95 @ 97½
Sac. Dry Cod, new	— @ 6½	Whole Pepper	14½@ 15
cases	6 @ 7½	Pimento	16 @ 17½
do boneless	8½@ 10	Gr'nd Allsp'rdz	20@ 12
Eastern Cod	8 @ 8¼	do Cassia do	—@1 50
Salmon in hbls	7 25 @ —	do Cloves do	—@1 50
do ½ bbls	3 75 @4 00	do Mustard do	—@1 20
do 2 lb cans	2 00 @ —	do Ginger do	—@1 00
do 1 lb cans	1 25 @ —	do Pepper do	—@1 00
do Col. R. ½ lb	5 00 @5 50	do Mace do	—@2 00
Pick. Cod, bbls	2 00 @ —	Bowen's Pure Ground lb	— @ 50
do ½ bbls	1 00 @ —	**SUGAR, ETC.**	
Mack'l, No. 1, ½ bbls	11 00 @ —	Cal. Cube per lb	— @ 12¾
" Extra	— @12 00	Circle A crushed	— @ 12
" in kits	1 90 @2 25	Powdered	— @ 12¼
" Ex mess.	3 50 @4 00	Fine crushed	— @ 12
" Ex mess. ½ bbls	—@12 00	Granulated	— @ 11⅝
Pio'd Herr'g, hx	3 00 @ 3 50	Golden C	— @ 10½
Bos. Sm'k'd Her'g	40 @ 50	Hawaiian	10 @ 11
LIME, ETC.		Cal. Syrup in kgs	— @ 62½
Lime, St'a Cruz, bbl	2 00@ 2 25	Hawaiian Molasses	25 @ 27½
Cement, Rosendale, do	2 75@ 3 50	**TEA.**	
do Portland do	4 75@ 5 50	Oolong, Canton, lb	19 @ 25
Plaster, Golden Gate Mills	3 00@ 3 25	do Amoy	28 @ 50
Laod Plaster, ton	10 00@12 50	do Formosa	40 @ 80
MISCELLANEOUS.		Imperial, Canton	25 @ 40
Pulu	— @ 7½	do Pingsuey	45 @ 80
NAILS.		do Moyune	60 @1 00
Assorted size, keg	3 75 @4 00	Gunpo'der, Cant.	75 @1 00
OILS.		do Pingsuey	50 @ 90
Pacific Glue Co Neat F't No. 1	1 00 @ 90	do Moyune	65 @1 25
Pure	— @ —	Y'ng Hy., Canton	28 @ 40
Castor Oil, No. 1	— @ 95	do Pingsuey	40 @ 70
Baker's A A	— @1 15	do Moyune	65 @ 85
Cocoanut	— @ 60	Japan, ½ chests, bulk	30 @ 75
Olive Plagniol	5 50 @5 75	Japan, lacquered hxs, 4½ and 5 lbs	45 @ 67
do Possel	4 75 @5 00	Japan do, lb hxs	45 @ 90
Palm lb	9 @ —	do pl'n bx, 4½ lb	35 @ 65
Linseed, raw	— @ 62½	do ½ & 1 lb paper	30 @ 55
do boiled	— @ 65½	**TURPENTINE.**	
China nut in os	65 @ —	Eastern	51¼@55

DOMESTIC PRODUCE.

[WHOLESALE.]

Wednesday m., Aug. 9, 1876.

BEANS.		Filberts	15 @ 16
Bayo, bbl	4 50@5 00	Pecanuts	17 @ 18
Butter	1 9 @2 25	**ONIONS.**	
Pea	1 92½@ —	Union City ctl	— @—
Pink	2 50@3 00	Stockton	50 @— —
Sm'l white	1 60@1 90	New Red	50 @— —
Lima	1 90 @2 00	Silver Skins	60 @— 70
BROOM CORN.		**POTATOES.**	
Common, lb	2 @ 3	Petaluma, bbl	— @ —
Choice, do	4 @ 5	Salt Lake	— @ —
COTTON.		Humboldt	— @ —
Cotton, lb	15 @ 18	Half Moon bay	62½@ 80
DAIRY PRODUCE, ETC.		Early Rose new	65 @ —
BUTTER.		Sweet	2½ @ —
Cal. Fresh Roll per lb	27½@ 32½	**POULTRY & GAME.**	
Point Reyes	35 @	Hens, per dz	6 50 @10 00
Pickle Roll	30 @ 32½	Roosters	6 00 @8 00
Firkin	25 @ 27½	Broilers	3 00 @5 00
W'st'n Reserve	16 @ 20	Ducks, tame, dz	5 00 @7 00
New York	— @ —	do Mallard	— @5 00
CHEESE.		do Canvas	— @5 00
Cheese, Cal., lb	10 @ 15	Geese, per pair	2 00 @2 25
do Old	— @ —	Wild Gray dz	3 00 @4 00
Eastern	12½@ 15	White	1 50 @2 00
EGGS.		Turkeys, Live, lb	15 @ 18
Cal. fresh doz	37½@ —	do Dressed	20 @ 24
Ducks'	— @ 32½	Quail, per doz	— @ —
Oregon	32 @ 35	Snipe, Enr., doz	@— —
Eastern	21 @ —	Doves, per dozen	50 @ 87
FEED.		Rabbits	1 00 @1 00
Bran, per ton	16 00 @17 50	Hare, per doz	1 50 @2 10
Corn Meal	28 00 @29 00	**PROVISIONS.**	
Hay	7 00 @13 00	Cal. Bacon, L'd, lb	16 @ 17
Middlings	24 00 @— —	do Medium	15½@ 16
Oil cake meal	— — @ 3 50	do Heavy	— @ 15½
Straw, bale	55 @ 60	Lard	14 @ 16½
FLOUR.		Cal. Smoked Beef	10 @ 12½
Extra bbl	5 50 @5 87½	Eastern do	— @ 10
Superfine	4 50 @4 75	East'n Should's	— @ 10
Graham, bbl	5 50 @— —	Hams, Cal	14 @ 14½
FRESH MEAT.		do Armour	— @ 16
Beef 1st quality lb	6 @ 8	do Worster's	17½@ 18
Second do	5 @ 5¾	do Dupee's	16½@ 17
Third do	3½@ 4	do Davis Bros'	17½@ 18
Spring Lamb	5½@ 6	**SEEDS.**	
Mutton	3½@ 4	Alfalfa, Chile lb	8 @ 10
Pork, undressed	7 @ 7½	do California	11 @ 12
do. dressed	10¾@ 10¾	Canary	10 @ 12
Veal	6 @ 6½	Clover Red	— @ 22
Milk Calves	5½@ 7	do White	60 @ 55
GRAIN, ETC.		Cotton	6 @ 10
Barley, feed ctl	95 @1 00	Flaxseed	— @ 3¼
do brewing	1 20 @ 1 25	Hemp	12½@ —
Chevalier	1 25 @1 35	Italian Rye Grass	25 @ 30
Corn, White	1 25 @1 30	Perennial do	20 @ 30
do Yellow	1 25 @1 30	Millet	10 @ 12
Oats	1 40 @1 75	Mustard, white	3 @ 3½
Milling	1 80 @2 00	do. Brown	2 @ 3½
Rye	1 30 @1 32½	Rape	2 @ 2
Wheat shipping	1 50 @1 54½	Ky. Blue Grass	30 @ —
do milling	1 60 @1 65	do 2d quality	20 @ —
HIDES.		Sweet V Grass	— @ 7
Hides, dry	10 @ 12½	Orchard do	30 @ 35
do wet salted	6 @ 6½	Red Top do	— @ 25
HONEY, ETC.		Hungarian do	8 @ 12
Beeswax, per lb	25 @ 30	Lawn do	80 @ —
Honey in comb	12½@ 15	Mesquit do	20 @ 25
do Strained	6 @ 8	Timothy	10 @ 13
HOPS.		**TALLOW.**	
Old crop	10 @ 13	Crude, lb	5 @ 5½
NUTS—Jobbing.		Refined	8½@ 8
Almonds'd sh'l lb	8 @ 10	**WOOL, ETC.**	
do, soft sh'l	18 @ 20	SPRING—	
Brazil do	14 @ 16	Seedy, lb	9 @ 12½
Cal. Walnuts	12 @ 14	Choice long free	17 @ 18
Chile Walnuts	11 @ 12½	do Northern	19 @ 20
Peanuts per lb	8 @ 9	do short	13 @ 16½
		Burry	10 @ 14
		Oregon	14 @ 16

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Is the only Feeder manufactured that feeds without moving all the straw in a body, consequently gives a more regular feed than it is possible to obtain with a draper feeder; it feeds the whole length of the cylinder; it is easily changed to feed fast or slow as desired; savee the labor of two men and does not require an experienced tableman to feed it. The separator needs no alteration with the exception of the removal of feed board to secure it in position, and does not have to be taken off when moving. It requires but little power to run it, and has no complicated parts liable to get out of order. Its success heving been fully demonstrated, I cordially invite all pertics interested to call and judge of its merits. For full particulars address

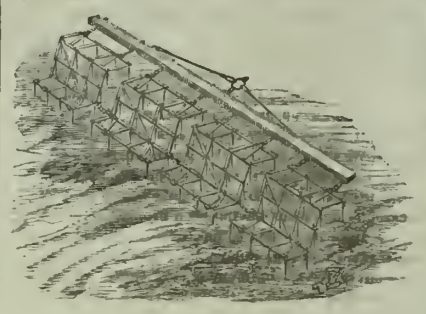
E. J. MARSTERS,

Stockton, Cal.

Works, Corner California and Sonora Streets.

IRON

Sectional Harrow.



This Harrow was Awarded the First Premium at the California State Fair in 1875.

The Undersigned, having Purchased the Patent Right of this Harrow for California, are now Manufacturing them in Roseville, Placer County,

And would call the attention of Farmers to the superior merits of this Harrow over all others now in use.

As its name indicates, it is made in Sections of about three feet in width, each Section having four Bars, in which the teeth are inserted, and by connecting the Sections with links, the Harrow is formed.

SHOULD A FARMER REQUIRE A HARROW UPON HIS FARM TO DO ALL KINDS OF WORK, HE SHOULD PURCHASE SIX SECTIONS, WHICH WOULD BE SUITABLE FOR FOUR HORSES, AND WOULD CUT 18 FEET IN WIDTH; BY DISCONNECTING TWO SECTIONS, HE WILL HAVE A TWO OR THREE HORSE HARROW, CUTTING ABOUT 13 FEET. ONE SECTION ALONE IS COMPLETE IN ITSELF, AND SUITABLE FOR GARDEN WORK, WITH ONE HORSE.

The Harrows are Made of the Best Quality of Iron, and with Teeth Warranted to be Steel.

We give a few of the many reasons why we claim superiority for these Harrows over all others in use on this Coast:

First—By the lightness of draft, taking into consideration the amount of work it does.

Second—By working uneven or rolling ground just as well and as evenly as if it was entirely level.

Third—They are made of Iron and Steel, and therefore are not affected at all by sun or rain, or by heat and cold; they are always tight, and ready for use; they are also durable. A farmer purchasing one has a Harrow that will last a life time.

Fourth—The teeth being fastened with a nut and screw into the cross bars, should one break, another can be inserted in a moment. We are making three sizes, all being the same in width, but differing in depth and weight only.

Prices, from $12.50 to $15.00 per Section.

All orders sent to

BREWSTER & CO,

Roseville, Placer Co.,

Will be promptly attended to, and satisfaction guaranteed in all cases.

CAUTION.

It has come to our notice that certain parties are now making this Harrow in this State, and that several of them have been sent here from the East. Now this is to *caution* all person against making, selling or buying them, so made and offered for sale, as we shall enforce our rights in relation to the matter, and would call the attention of all persons infringing upon our patent, to the *law* in regard to it.

BREWSTER & CO.,

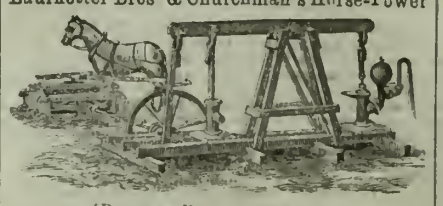
Roseville, July 15th, 1876.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros & Churchman's Horse-Power



[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Seperators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

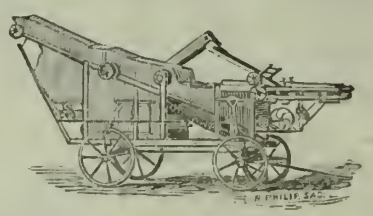
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LAUFKOTTER BROS.,

Cor. J and 10th Sts., Sacramento.

JACKSON'S

PATENT FEEDER & ELEVATOR



For Threshing Machines.

The most successful Automatic Feeder yet invented; it has had the severest tests in all kinds of grain, long, short, wet or weedy, during the past six years. There are over two hundred in use in the Sacramento valley. I will give full guarantee to purchasers. Send for special circular. Address,

BYRON JACKSON,

Patentee & Manufacturer,

Woodland, Yolo County, California.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

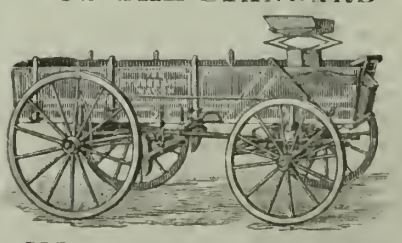
Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m **MATTESON & WILLIAMSON,**

Stockton, Cal.

BUY THE STANDARD



STUDEBAKER WAGONS.

We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

E. F. AMES, Gen. Agent,

Send for Price-List. Sacramento, Cal.

OAKLAND

Spring Balance

Gang Plow.



Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal Established in 1858. Send for Circular and Price-list

J. W. CASSIDY'S

FRUIT DRIER.

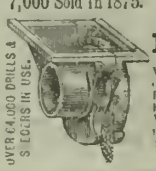
A New Invention, although Thoroughly Tested, which Combines all the Improvements.

We warrant a complete success in drying all sorts of fruit and vegetables as thoroughly and more expeditiously than any other Machine, for less amount of fuel by 33 per cent, as we utilize all the waste heat which is lost by all other Machines.



Its simplicity of construction and its cheapness will put it in the hands of all who may want a Drier. We don't pretend to ask from $1,200 to $1,500 profit and royalty. We are willing that producers should make the profit and keep it. The Machine has been tested to our entire satisfaction, and met our most sanguine expectations. The fruit dried by our Drier was fully as good as that dried by any of the renowned Driers. We would say to all who contemplate putting up Machines, that we can make it a decided inducement for all such to give us a call, as we want to sell the entire right of the United States, State, County or Local, at such prices that the poor as well as the rich can use them. The capacity of the Machine will be in proportion to the size, ranging from 100 to 500 feet drying surface. This dryer was more fully illustrated and described in the RURAL PRESS of May 20th, 1876. Communications to T. F. BACHELOR, 622 Clay St., S. F., or to **J. W. CASSIDY,** Petaluma, Cal., will be thankfully received and promptly attended to.

7,000 Sold in 1875. **NEW FORCE FEED** FOR **Buckeye Grain Drill.**



OVER 64,000 DRILLS A S. LOUIS IN USE.

Will sow any desired quantity without CHANGE OF GEAR. Will sow Wheat, Rye, Oats, Barley, Beans, Peas, Corn, Flaxseed, &c. **Just What You Want.** It beats any Force Feed ever made. Send for a circular, or ask your dealer to show you the **Buckeye.**

P. P. MAST & CO., Springfield, O.

COHANSEY GLASS TOP

FRUIT JARS.

FRUIT IN CONTACT WITH GLASS ONLY.



Elastic Pressure by Spring Clamps on Shoulder Joint.

The Screw Clamp turns freely on Cover and Inclines, and tightens the Jar quickly and is Easily Tested.

Easily opened and closed, without wrench or tool.

Every Jar being inspected, there is no trouble in using.

The Handsomest and Best Glass Lid Fruit Jar.

COHANSEY GLASS MF'G CO.,

N. W. Cor. Third and Arch Sts., Phil'a.

REDDINGTON & CO.,

Wholesale Agents, - - - San Francisco, Cal.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of Lea & Perrins' Sauce, which are calculated to deceive the Public, LEA & PERRINS have adopted A New Label, bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of Worcestershire Sauce, after this date, and without which none is genuine.

November 1874.

**** This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of **CROSS & CO., San Francisco.**

50 **Visiting Cards,** with your name finely printed, sent for 25c. We have **100** styles. **Agents Wanted. 9** samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

Eleventh Industrial Exhibition,

Under the Auspices of the

MECHANICS' INSTITUTE.

The Managers have the honor to announce that the forthcoming Exhibition will be opened to the public on

Tuesday, Aug. 8th,

At 2 P. M., with the usual ceremonies. By the desire and co operation of the leading citizens of San Francisco, the Exhibition will be held on a much grander scale than heretofore.

THE EXHIBITION BUILDING, OCCUPYING AN AREA OF OVER 214,000 FEET

OF FLOOR ROOM, WILL BE COMPLETELY FILLED WITH THE VARIED PRODUCTS OF THE SKILL AND INDUSTRY OF THE PEOPLE AND OF THE SOIL. OVER 700,000 PERSONS WERE ADMITTED DURING THE LAST FAIR. THE MANAGERS INTEND TO ENGAGE THE SERVICES OF THE BEST INSTRUMENTAL TALENT OF THE COUNTRY, SO AS TO ENABLE THEM TO GIVE UNEQUALED

MUSICAL CONCERTS AFTERNOON AND EVENING.

In every Department applications for space far exceed expectations, and surpass those of former Fairs. Intending Exhibitors must not delay filing their applications, otherwise they will be excluded.

The Exhibition will Continue at least One Month.

THERE WILL BE NO CHARGE FOR EXHIBITING SPACE.

Application for space or for information should be addressed to the Secretary of the Board of Managers, Eleventh Exhibition, 27 Post street, San Francisco, or to J. H. Gilmore, Supt., at same address.

A. S. HALLIDIE, President.
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GRANGERS' BUSINESS ASSOCIATION,

Incorporated Feb. 10th, 1875. Capital Stock, $1,000,000.

OFFICERS and DIRECTORS:

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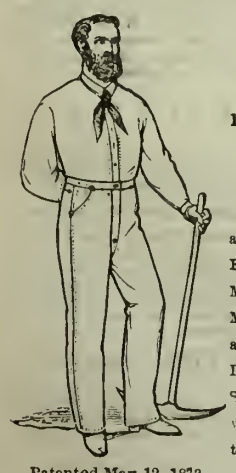
Consignments of Grain, Wool, Dairy Products, Fruit, Vegetables, and other Produce solicited, and advances made on the same. Orders for Grain and Wool Sacks, Produce, Merchandise, Farm Implements, Wagons, Etc., solicited and promptly attended to.

We do a strictly Commission Business, and place our rates of Commission upon a fair legitimate basis that will enable the country at large to transact business through us to their entire satisfaction.

Consignments to be marked Grangers' Business Association, San Francisco. Stencils for marking will be furnished free on application.

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Patent Riveted Clothing,

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These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

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D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

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BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
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MERCHANT MILL FOR SALE,

And 150 Acres Land. Turbine Wheel, 190 feet fall, 35 barrels per day. Good Home Market and Never Failing Water.

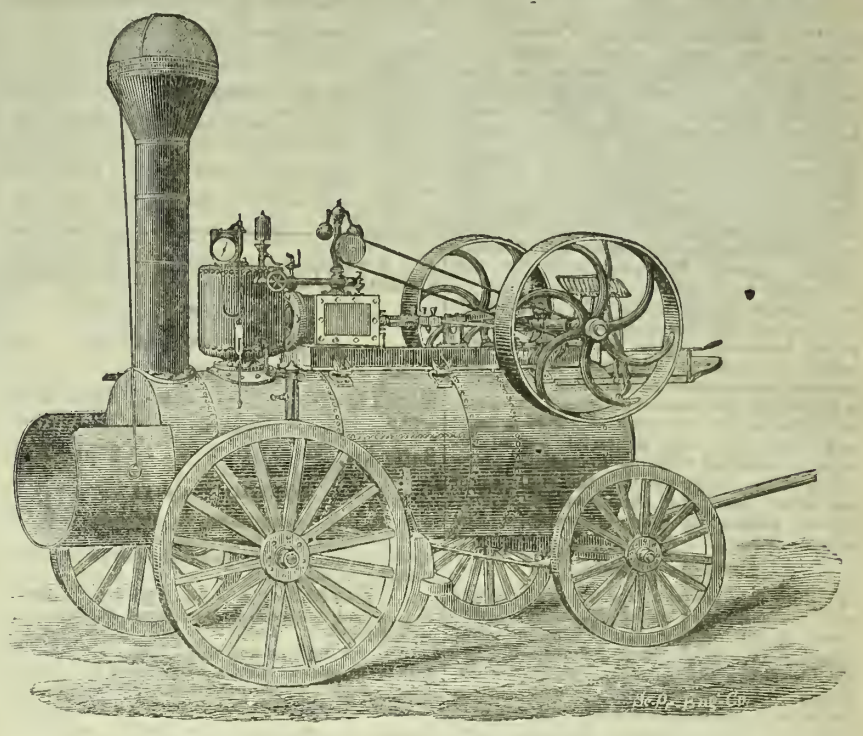
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STRAW BURNING THRESHING ENGINES.



Best Portable Straw Burning Thresher in Use.

WILL SELL CHEAPER THAN ANY SIMILAR ENGINE ON THIS COAST.

SHIPMENT JUST ARRIVED.

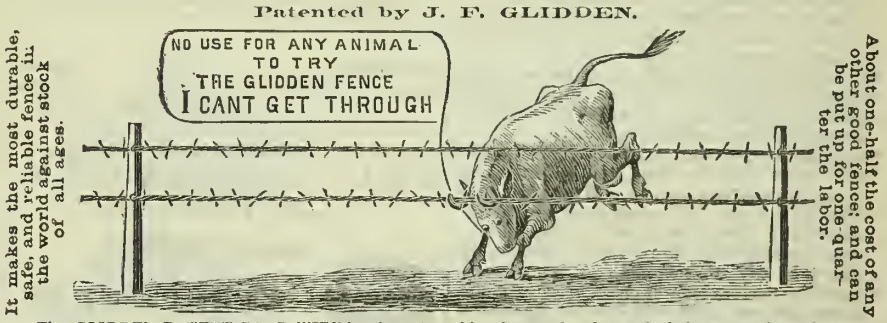
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Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE

Patented by J. F. GLIDDEN.



The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8 Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11 Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

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IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

GRADES.

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Farmers and Hay Pressers will find it to their advantage to examine this Press before buying any other. It is built compact, combining lightness for moving with the greatest power and durability in its working parts, capable of making the average 250 pound bale, more or less, baling 10 to 15 tons per day, with three men and a pair of horses, they traveling only 36 feet to operate it. No excavations required for this Press. This is the original Gove Press improved, after an experience of building Presses in the States the past 15 years, where they gave the best of satisfaction. **Price, No. 1, $250.**

Manufactured and for sale, or built to order, at the EUREKA GRAIN STORAGE WAREHOUSE, by **JOHN H. GOVE** or **ANDREW J. GOVE,** Box 1122.

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PATENTS obtained promptly; Caveats filed expeditionsly; Patent rcissues taken out; Assignments made and rccorded in legal form; Copies of Patents and Assignments procnred; Examinations of Patents made here and at Washington; Examinations made of Assignments recorded in Washington: Examinations ordered and reported by Telegraph; Rejected cases taken up and Patents obtained; Interferences Prosecuted; Opinions rendered regarding the validity of Patents and Assignments; every legitimate branch of Patent Agency Business promptly and thoroughly conducted.

Our intimate knowledge of the various inventions of this coast, and long practice in patent bnsiness, enable us to abundantly satisfy our patrons; and our success and business are constantly increasing.

The shrewdest and most experienced Inventors are found among our most steadfast friends and patrons, who fully appreciate our advantages in bringing valuable inventions to the notice of the public through the colnmns of our widely circulated, first-class journals—thereby facilitating their introduction, sale and popularity.

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In addition to American Patents, we secure with the assistance of co-operative agents, claims in all foreign countries which grant Patents, including Great Britain, France, Belgium, Prnssia, Anstria, Victoria, Peru, Russia, Spain, British India, Saxony, British Columbia, Canada, Norway, Sweden, Mexico, Victoria, Brazil, Bavaria, Holland, Denmark, Italy, Portugal, Cuba, Roman States, Wurtemberg, New Zealand, New South Wales, Queensland, Tasmania, Brazil, New Grenada, Chili, Argentine Republic, AND EVERY COUNTRY IN THE WORLD where Patents are obtainable.

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We *can and do* get foreign patents for inventors in the Pacific States from two to six months (according to the location of the country SOONER than any other agents.

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Situated so remote from the seat of goverment, delays are even more dangerous to the inventors of the Pacific Coast than to applic ants in the Eastern States. Valuable patents may be lost by extra time consumed in trans mitting specifications from Eastern agencies back to this coast for the signature of the inventor.

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DEWEY & CO.,

United States and Foreign Patent Agents, pnblishers Mining and Scientific Press and the Pacific Rnral Press, 224 Sansome St., S. F.

Fairs in 1876.

The Ceutennial (World's Fair), Philadelphia, Pa., from May 10th to continue till autumn.

Mechanics' Institute Industrial Fair, S. F., beginning August 8th.

Californiia State Fair, Sacramonto, from Sept. 18th to Sept. 23d.

The Southern Disirici Agricnltural Society, Los Angeles, from Oct. 5th to Oct. 14th.

Nevada State Fair, Reno, Nev., from Sept. 11th to Sept. 16th.

Sonoma and Marin Disiriot Fair, Petaluma, from Oct. 9th to Oct. 16th.

Oregon State Fair, Salem, from Oct. 9th to Oct. 16th.

Northern District Fair, Marysvills, from Oct. 9th to Oct. 16th.

San Joaquin Valley Agricnlinral Fair at Stockton, beginning Sept. 26th.

Contra Costa County Fair, Pacheco, from Sept. 25th to Sept. 29th.

CALIFORNIA STATE FAIR

For 1876,

SACRAMENTO, CAL.,

COMMENCING

Monday, - - - - - - Sept. 18th,

AND CLOSING

Saturday, - - - - - - Sept. 23d.

40,000 CASH

To be Distributed in Premiums.

The Exhibttion will be divided into SEVEN DEPARTMENTS, and the

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To be Awarded to the most Meritorious Exhibitiou in each Department. Also,

Five Special Gold Medals,

Ecch of the value of $100, as per Premium List. Those desiring Premium Lists will please notify the Secretary.

THE LARGEST STOCK SHOW

—AND—

Most Attractive Speed Display

Ever offered by any Agricultural Society in the United States.

☞ PUBLIC SALE OF THOROUGHBRED STOCK at the Park each day of the Fair.

THE CENTRAL PACIFIC RAILROAD AND STEAMERS will carry articles to and from the Fair FREE OF CHARGE.

WELLS, FARGO & CO.'S EXPRESS will deliver all packages FREE, not weighing over 20 pounds.

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MEMBERSHIP.....$5 00
SINGLE ADMISSION.....50 Cts.

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IMPORTER AND BREEDER OF



Jersey Cattle,

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Send stamp for circular, containing a full description of all the best known and most profitable fowls in the country.

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Howell's Improved Patent Wagon Brake.

(Il ustrated in RURAL PRESS of August 12th.)

References.—The following are a few of the many persons nsing the HOWELL BRAKE,—any one of whom can be consulted: C. S. Davidson, Jacob Loucor, G. O. Truex, A. Valentine, John Beatty, Samuel Vansickle, Sylvanus Lawrence, Crispin & Willson, Wm. H. Hart, Joseph Ayrcs, John H. Ayres, Collins B. Drake, Sieward Wells, Michael Youngs, Wm. Pinkney, Peter Haines, Marshall Ackerson, Jonathan P. Maines, Robert T. Johnson, Overton Heminover,—all of Andover, N. J.

State rights for sale. Address,

C. M. HOWELL, Andover, N. J.



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CARBOLIC

SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

Thoroughbred Southdown Sheep,

VERY  CHEAP.

A few Ewes, two to three years old, at $10 each. Several young Rams and Lamb Ewes at $8 each. Having just purchased 80 head I am over-crowded, and offer at these prices to reduce stock. Address,

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IMPORTED.

Crosby's Extra Early, Marblehead Mammoth, Stowell's Evergreen, Mexican Sweet, New } Sweet Corn.

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Valuable Farming Lands,

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1,300 Acres of Spleudidly Reclaimed Meadow Lands, on Sonoma Creek, in the Whole or in Subdivistons, on favorable terms, for a term of years.

The land is very fertile, perfectly reclaimed against floods, and admirably dratned. It is beyond the influence of floods in the Sacranicnto River, and the water has never risen more than 20 inches against the levee, which is four and a half feet high and 14 feet broad. The first crop of barley put in last winter yielded three tons of hay per acre, and that which was uot cut will yield heavily in grain. The soil is also superior for vegetables. It is 25 miles from San Francisco, and has six miles of frontage on Sonoma creek. The largest bay sailing craft can load from the banks at any point. Steamers touch at the wharf daily. Steamboat freights, $2.00 per ton; sailing freights, $1.00 to $1.50 per ton.

Maps can be seen and particulars obtained from

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WE OFFER A LARGE STOCK OF FINE PLANTS, AT VERY LOW RATES, RANGING FROM

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F R E E — **THE PERFECTION FAMILY ALBUM,**—Not a book, but an Engraving, 22 by 28 inches in size, with a Family Record, and spaces for 16 Photographs, which can be seen but not handled; and hence, will never wear out, thus making a Family Memorial as enduring as it is elegant. Price, $5 00. Agents Wanted. A single copy can not be bought at place of publication for less than $5, but, desiring to have samples in every neighborhood, that people may see what it is, we will send a copy free to any address, on receipt of this advertisement and 25c. to pay for postage, mailing tube, etc. Also, one elegant sample Frame, free, with every 250th album sent out. Frame made from 3-inch moulding, and very elegant.

C. F. VENT, Publisher, 38 W. 4th St., CINCINNATI, O.

Lands and Homes for Sale.

Sales of Farming Lands.

Alameda County.

The following real estate transfers have been made in Murray, Eden and Washington townships since our last report: George P. Carpenter to W. D. Heaton, lot 103 by 125 feet on Hayward avenue in rancho San Lorenzo, $1,250. Samuel Soule to John Lowrie, 120 66-100 acres, near Alvarado, Washington township, $10,000. T. C. Atherton to C. D. Henry, 3 66-100 acres San Leandro rancho, $866. J. Alexander to J. Rosa, 137 15-100 acres, Washington township, $2,125. D. D. Henry to E. S. Heudrick, portion of San Lorenzo ranch, 3 66-100 acres, Eden township, $1,557. —*Independent.*

FOR SALE,

A Fine Napa County Farm,

ONE HUNDRED ACRES,

Seven Miles West of Napa City.

Fifty acres in vines, the remainder is grain and pasture land. The Vineyard contains six varieties of the best table and wine grapes. One-half of the vines are seven years old and the other half four years. Orchard of 150 best fruit and nut trees. Buildings are a dwelling, good barn and stable, large shed for wagons, two houses for hands, storehouse, etc Steamer to San Francisco lands 2½ miles from the place, and proposed railroad will run within half a mile. This property will return good interest on the investment, and make a delightful home at the same time.

Title Perfect. Terms, $10,000, Half Cash.

Apply to

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A Desirable Bargain.

Mr. Lee H. Utt, of Pala, San Diego county, offers for sale a share in his valuable place, consisting of 320 acres, and situated as described above. There is an Apiary on the ranch in successful operation. For this business it possesses marked advantages. Twenty acres are seeded to alfalfa and eight acres are in vines. The place has growing on it 420 trees, many of them in bearing.

The owner will warrant the Cavendish Dwarf Banana to grow as well here as in Florida. He has three now growing. The pasture now enclosed will keep 50 head of cattle. The ditch—which is large enough to run a mill—is stocked with trout, and has a fish pond 100 feet square, and full of fish. There is a nice warm spring, with bath house; the water contains sulphur, salts and iron.

The place possesses great natural advantages, and the present owner has not spared money nor labor to improve; but being a valetudinarian he is not strong enough to attend to the work. To the right kind of a man a rare opportunity is here offered. To such a person as will come in good faith he exteuds the invitation to stop on the ranch long enough to become familiar with its characteristics and capacities.

Parties can refer to I. Nast, stock broker, San Francisco, or to anybody of note in San Diego. The place bears the name of "Aqua Tibia." Address,

LEE H. UTT,
Pala, San Diego County, Cal.

FOR SALE,

IN LOTS TO SUIT,

5,000 Acres of the Lake Vineyard Land and Water Association.

These lands are in the great frnit belt of Los Angeles County,—only six miles from the city—are peculiarly adapted to semi-tropical fruits, and adjoin the famous Lake Vineyard of Hon. B. D. Wilson. The Southern Pacific railroad runs through the land; convenient to schoolhouse and church; water in abundance, and the water-right is sold with the land. Title perfect. A Map of the tract may be seen at the office of Mayor Beaudry, on Spring street, opposite City Council rooms. References may be made to HON. B. D. WILSON or J. DE BARTH SHORB, at Lake Vineyard, who will take pleasure in showing the lands. Also, to MAYOR BEAUDRY or D. FREEMAN, Los Angeles city.

A RARE CHANCE.

FOR SALE—My POULTRY BUSINESS, with my Farm of 115 acres; 22 acres of Vineyard and Orchard; House of 10 rooms; Barns; Granaries; 30 Chicken houses.

Receipts between $3,000 and $4,000 a Year,

Fully proved to the purchaser. Farm Implements, Wagon, Horses, Cows, etc., with Poultry (value over $3,000) included. Price, $12,000, one-half cash. Or I WILL SELL A HALF INTEREST and continue the business in partnership—the purchaser to reside on the place. Address,



M. EYRE, Napa, Cal.

In view of above I offer a few fine Fowls, Bronze Turkeys, etc. (not included in breeding pens and stock sold with farm), at reduced prices.



FOR SALE,



A large and well established NURSERY, with an extensive trade and an excellent business reputation. A large and well selected stock on hand that will nearly pay for the whole thing the coming season. It is the only first-class Nursery in the great Sacramento Valley.

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PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, AUGUST 19, 1876. [Number 8

The Horse's Foot and Its Diseases.—No. 3.

We give this week enlarged drawings of some of the bones of the horse's foot, to which we have alluded before, in order that their form may be more clearly discerned.

Fig. 7 shows the splint bones. These, it will be remembered, lie alongside the cannon bones in both the fore and hind legs. If the hand be pressed carefully downward from the knee, or carpus, of the fore leg, and the hock, or tarsus, of the hind leg, the splint bones may be felt. At the top these bones are spread out and form part of the joint to which they belong; from the joint they extend downward by the slide or rather to the rear of the cannon bone, growing gradnally smaller as they descend and terminating before they reach the fetlock joint.

Fig. 8 gives an idea of the general appearance of the pastern bone. This is sometimes called the "long pastern" to distingnish it from the coronet bone, which is sometimes called the "short pastern." The pastern bone is the first of the phalanges of the horse's foot. There are three phalanges. In our first engraving of the horse's foot, in the RURAL PRESS of August 5th, the phalanges are marked *p* 1, *p* 2, and *p* 3, and by reference to that drawing it may be seen to what bone in the human foot this pastern bone of the horse corresponds. The phalanges of the foot answer to the phalanges of the fingers of our hands, and by this comparison it will be seen that the pastern corresponds to the bone which extends from the knuckle to the middle joint of the finger. We have mentioned this correspondence to show how close a comparison may be drawn between the anatomy of the two animals, the horse and his master. Upon the relations extending through the structures of different animals the great science of comparative anatomy is fonnded. It is interesting to draw these comparison, and it may be instructive also, if it lead thoughtless men to a kinder treatment of their horses from the fact that their horses are altogether like creatures to themselves, so far as bodily structure and bodily suffering are concerned.

Fig. 9 is the coronet bone. This is really the first bone of the foot, as the foot is commonly understood. It is nearly square; its breadth from side to side exceeds its hight by about one-fifth. It is situated partly within and partly without the hoof. It supports the pastern bone and rests upon the coffin and the sesamoid bone called the navicular.

Fig. 10 is a larger drawing of the coffin bone which we described in part in our last article. William Miles, in his work on the horse's foot, calls attention to the different form in the coffin bones of the fore and hind feet. He claims that if a coffin bone be placed npon a flat surface, it will be seen that the whole of the front or toe is considerably arched, as if a notch had been cut out of, giving it almost the appearance of an imperfect bone. He considers this a provision of nature for diminishing the concussion to which the foot of the horse is constantly exposed; for if the toe of the bone corresponded exactly with the toe of the hoof, a shock would be communicated to the whole foot each time it struck against a stone or other projecting surface; whereas, this intervening space, by breaking the connection of the parts, almost entirely prevents the transmission of the jar. He strengthens his conjecture by the statement that the coffin bone of the hind foot, where the jar wonld be less felt, has no snch deficiency at the toe. We give Mr. Miles' conjecture on this point for what it may be worth as a matter of interest.

Fig. 11 gives a side view of a nearly perfect hoof. The hoof is described as a thick, horny cap or box covering the bones of the feet. The physiological relation of the hoof to the parts it covers is essentially the same as that of the hnman nail to the parts covered by it. The horn of the hoof is developed from the soft substances bencath it, as our nails grow from nourishing membranes. The horn of the hoof is about half an inch thick in front, and becomes thinner towards the back of the foot. Upon the inner side the hoof is thinner than on the outside.

Fig. 12 shows a very interesting point in the structure of the foot. The horn of the hoof is composed on the interior surface of very numerons, narrow, thin plates. These can be discerned in the engraving. The plates are called laminæ or lamellæ. They are in length from two inches in front to less than an inch at the heels; in width they are almost uniformly about one-tenth of an inch. As may be seen in the Fig. 12 the laminæ extend from the lower to the npper border of the hoof and rnn parallel to each other. Each of them has a free edge and two free surfaces. By the other edge the lamella is joined to the lamella of the sensitive part of the foot which lies beneath it. By this arrangement the surface by which the horny wall is attached to the sensitive part of the hoof is very largely increased. Dr. Evans has shown that these laminæ increase the connecting surface 12 times, and this attachment, while possessing greater elasticity and strength, also admits of considerable motion between the horny sole and the coffin bone contained in it. These qualities are all in marked nnison with the needs of the foot and show clearly the wisdom which contrived it.

In our next article we expect to present a more interesting engraving than any which have yet appeared in this series. We branch out a little from the dry bones which we have been discussing and describe the tissues which clothe them and give them their power of strength and motion.

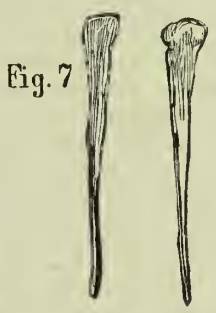


Fig. 7



Fig. 8



Fig. 9



Fig. 10

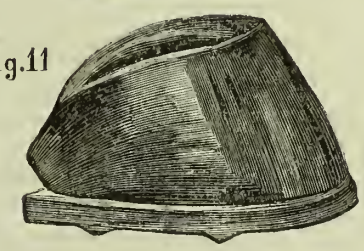
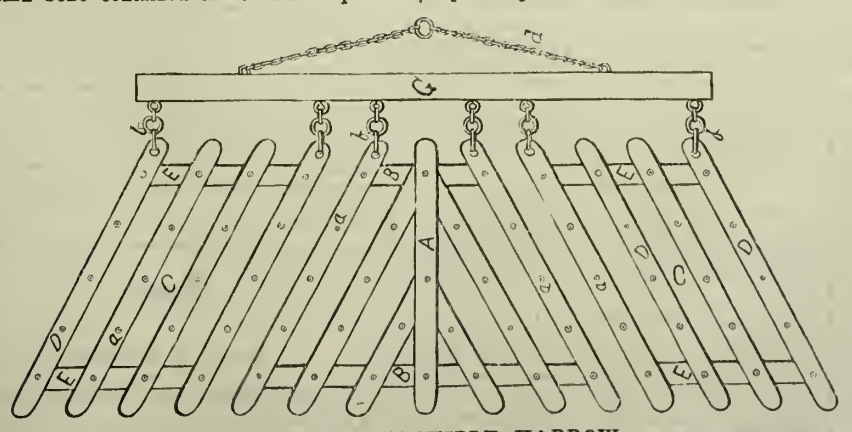


Fig. 11



Fig. 12

ANATOMY OF THE HORSE'S FOOT—NO. 3.



PERKINSON'S FLEXIBLE HARROW.

THE Senate has passed the Hawaiian treaty bill, without amendment, by a vote of 29 to 12.

Perkinson's Flexible Harrow.

The attention of the farmers of this coast is invited to the illustration of a new flexible harrow, invented by J. E. Perkinson, of Santa Rosa. Merits are claimed for this harrow over all others in use. It bids fair to give good satisfaction in its work, and should be thoroughly tested by farmers. It has the bnild of durability. The inventor informs us that it can be made for $35 on this coast.

This harrow is made in three sections, which are connected to a draft bar by links and clevises. The bars are about fonr feet six inches long, and there are four bars in each of the two outside sections. The center section is filled np as seen in the engraving. The harrow is made of good Eastern oak, with 63 steel teeth, and covers about 13 feet width of swath. The inventor assigns the following reasons for the superiority of his tool: First, by the lightness of the draft, two horses, of ten hundred each, can draw it on loamy soil with ease. Second, it is the best attachment in use. The draft bar is perfect. By using an equalizing chain to draw by, it keeps the harrow in its right position and makes it easy to turn at a corner, as no wide spread harrow can be turned with ease without those equalizers. Third, where other patentees have failed in setting the teeth so that each and every tooth will make a separate and distinct mark, this harrow will do it on trial. The harrow is manufactured by the inventor, J. E. Perkinson, at Santa Rosa, Cal., to whom applications for rights can be made.

Fresh Meat for England.

Last winter we printed an account of experiments which were being made with shipping fresh meat to England in a refrigerating apparatus. The sample roasts were pronounced fragrant and juicy by the English tasters. The shipment has now grown into a regular trade and nearly every steamer takes out its share of the dead stock shipments. New York began the enterprise, but it now appears that the avenue by way of the St. Lawrence is being used by the western beef-growers. The movement is important to the agricultural interest of the whole country and may inaugurate quite a change in the produotive energy of the prairie States, and thus indirectly make louder the call for California grain. We find in our exchanges some interesting information on this subject.

The *Live Stock Reporter* of Chicago says: We have for months past had a steady and somewhat increasing trade with England in live as well as dressed beef, and from all appearances it will steadily increase hereafter, and may thns serve to snstain the values of onr best grades of cattle. A single firm in this city are now taking from 200 to 300 head per week to fill orders from Liverpool via Montreal. For some time past constant shipments have been made to England from Galveston, Texas, of cheap cattle, snch as the working and lower classes could purchase, and it is gratifying now to find that we can supply the wants of the "upper" as well as the lower "ten thousand." Most of the shipments of beef from Chicago have been of fat cattle destined to compete with Scotch beef.

The Liverpool *Courier* says upon the same subject: "Something over one hundred tons of American beef prepared by the cold air process, is brought weekly into the London market. The beef is pronounced to be excellent, and is sold off rapidly hy West-end butchers, who do not think it necessary to inform their customers that it has crossed the Atlantic. Whether the beef is sold nnder the market price for native beef to the bntchers is one of those dead secrets of cattle craft which no outsider can discover. The butchers do not make any reduction in the price per pound to consumers. As the imported beef meets with instantaneous sale, the probability is that the traffic in the article will increase and extend. Ships constructed specially for this trade are in preparation, and when these are at full and constant work the supplies from the United States will be multiplied, and then perhaps a workingman may purchase a piece of sound beef without expending one-half his week's wages."

CALIFORNIA FRUIT IN NEW YORK.—We quote the following from the N. Y. *World*, showing that our fruits can be sent to Eastern markets in good condition, and that it is highly prized there, as will be seen from the prices realized for them: California Bartletts sold quickly. They had to be pressed for sale a little, as they arrived quite mellow though not damaged for use. The quotations were $5 to $6 per box. This week gives us the arrival of 800 boxes of California plums, consigned to Messrs Davis & Sutton, who have done so much in the interest of putting the delicious product of the Pacific regions on our market. This last shipment of plums is a new feature, having been forwarded in the Allegretti refrigerators. The test proves to be a success, for after 10 days of housing and transportation they turn out fine enough to bring $5 to $6 per box for boxes containing 200 plnms. The varieties are Duane's purple, large white egg and McLaughlin.

THE STATE FAIR.—The *Record-Union* sees reason to expect an unusually successful State fair this fall. It says: "Everything indicates that the next State fair will be the best ever held in the State, more especially in the live stock department, in which it is evident from present indications that the exhibitors will be much more nnmerons than heretofore. Considerable space is already engaged, and all persons desiring stall room should notify Major Beck, the Secretary, at once. Each day of the fair, which commences Monday, the 18th of September, there will be a sale of thoronghbred stock at the Park. Many new featnres will be introduced to give additional interest to this meeting.

CORRESPONDENCE.

A Trip to the Mountains.

EDITORS PRESS:—A trip to the Santa Cruz mountains is always a treat—such a treat I enjoyed some days ago, and will, with your permission, give the readers of the RURAL PRESS some brief notes of what I saw.

In the first place I saw and enconntered rsther more dust than was agreeable on the way between Santa Clara and the foothills. The great number of heavy teams that pass over the road daily, work np the dust pretty deep in some portions of the road. I met a great many of these teams loaded with redwood lumber from the mills; pickets, cord and stove wood, tanner's bark and shingles, coming down from the mountains on their way to San Jose and Santa Clara. Then there were a good many tesms hauling bay snd grain to market.

Harvest Scenes.

All over the country as far as the eye could reacb, the ricks of hay and the stacks af wheat awaiting the threshers make a show of great plenty in the valley. And on every hand stirring scenes of activity were presented in the fields in harvesting and saving the abundant crop. In some few fields the clippers were still at work, but nearly all was cut, and in many directions the steam threshers were seen at work. Hay balers were busy here and there rapidly converting the long ricks of loose hay to neat square piles of the baled hay ready for market; while the clatter of machinery in the field and the ruckle ruckle of loaded wagons on tho road, gave notes of fitting accompaniment to such a busy scene.

At Messrs. Rogers & Co.'s stone flouring mill at Los Gatos, I saw quite a large number of grain wagons waiting their turn to unload. This old, well established and reliable business institution seems to be one of the leading industries of the town and neighborhood; every day of the week, except Sunday, the mill team, consisting of two wagons drawn by six horses, may be seen on the road to San Jose or Santa Clara, loaded with sacks of flour marked "Los Gatos mills, baker's choice X X X, Santa Clara valley, Rodger's & Co." The driver of this team told me he was loaded with seven tons of these sacks, and all for the Santa Clara college—this don't look as though they starved their students in order to fill their beads.

The pretty town of

Los Gatos

Has made considerable improvements within the last few years. The stores and shops seem to be doing well, and there are quite a good many neat, pretty, home-like places, surrounded with trees, vines and flowers.

At the Quito farm, on my way up, I saw a saw a broad belt of most beautiful olive trees bordering a vineyard. The trees were the largest I have noticed in the valley, and looked perfectly fresh and healthy—and looked from the road as if well set with fruit.

Mr. Fancher, near Los Gatos, has, I believe, the pioneer almond orchard of this valley. The trees seem to be perfectly healthy and growing very rapidly, but hearing but little fruit, except when they were pruned and thinned out last year—all the trees treated in this way are full of nuts. The orchard is on high gravelly land, and the trees have made a prodigous growth under thorough cultivation without irrigation.

But Ho for the Mountains!

The glorious old mountains! Always grand, wild and shady, and the air always sweet, cool and exhilarating. Who does not feel like saying here, let us build three tabernacles and stay awhile?

Leaving the broad, rich harvest fields, and the straight, level, dusty roads of the valley, we pass the toll house and are on one of the finest and best kept mountain roads in California—we know that is putting it strong, but we have nothing to take back. From the toll house, up the wild crooked canyon of the Los Gatos, with bold rock and tree covered mountains rising high up to the right, and the foaming, seething waters of the creek far down among the rocks and bushes to the left. You ride along on a broad, smooth, but crooked road, carved out of the sides of the cliffs like a shelf, with a grade so easy that you can trot all the way up, and enjoy to the full the ever varying pictures of wild romantic mountain scenery as they unfold to the view as you pass zigzag round the graceful curves of the road.

I like to note the style of improvement adopted by this road company—that is, in reducing the toll and making the road much better. This road used, through the summer season, to get very much cut up and dusty, but now it is regularly every day well sprinkled down, and although there is an immense amount of freighting and travel over it the track is free from dust, and smooth as could be desired. Besides the numerous water tanks erected for the use of the road, furnish an abundance of cool, soft, mountain spring water for all who pass, both man and beast.

Mr. D. C. Feeley, who has a nice cosey mountain home near the road, well surrounded with fine romantic views, has a large, well-tended vineyard with a good southeastern exposure. His grapes are all of choice varieties and all looking well, especially his white muscats of Alexandria are having an immense crop. What will be done with all the grapes?

At Mr. L. J Bunell's large fruit farm, near the summit, I saw a plenty more of fine muscats and other choice grapes, besides an abundance of peaches, apples, plums, etc. The cherry crop had also been good. I brought away from Mr. Bunell's what I thought quite a curiosity in the way of fruit, good samples of two years' apples, last year's and this; the last year's samples being Newtown pippins, in a good state of preservation. Mr. B. is perhaps the pioneer fruit grower of this neighborhood. He has a large tract of land, much of it yet in redwood timber. He is now also amusing himself in raising Angora goats. He has a flock of about 300, looking fat and healthy, and doing good service in clearing up mountain land, besides increasing rapidly in numbers. And let me say just here, that should a weary representative of the RURAL PRESS ever get lost in the mountains, then find himself at Mr. B's hospitable door, he will be sure of kind words and acts of hearty cheer—at least, that has always been my experience.

At Mr. I. Taylor's, just east of the summit and on the line of the Soquel stage road, I saw some very fine specimens of fruit of various kinds. Mr. T. has 100 acres well located for fruit trees and vines; and his fruit trees especially, of which he has about 1,000 in bearing, are models of beauty and health. His neat, white house, half covered by vines and trees, with the background of mountains and a fringe of redwood trees nearer to the house, makes a picture of quiet rural beauty, as seen from the road, which I have always admired.

G. N. M.

Santa Clara, Cal., Aug. 7th, 1876.

Notes on Agriculture in Chile.

Surgical Operation.

EDITORS PRESS:—Senor Don Rosallo Castillo, of Penuelas de Aquen, Chile, had a valuable horse, which had been ailing some months. A traveling veterinary surgeon, calling at the hacienda, examined the animal and pronounced him affected with tubercles on the lungs, and offered to cure the horse for $40; should the horse die under his treatment, a forfeiture was to be made of another horse and $20. The sick horse had his fore feet tied together, a halter slipped over his head and two men placed on each side, who kept the horse quiet and in his place whilst the operation was being performed. The surgeon stepped to the left side of the standing animal, made an incision with a sharp knife down and about four inches back of the shoulder and below the backbone, near the so-called cross (as it would be called on a mule). He then cut back from the first incision, at the upper part, about two inches, and again inserted his knife below, cutting back say three inches. Turning up and back the flap thus cut, he drew from the orifice made the horse's lung, cut from it the ulcers and replaced the lung and the flap. Taking some herb salve, he applied it to the exterior of the wound, and in a few weeks' time the horse was again in use for saddle purposes. At the present time the horse is in good condition and spirits and shows no sign or indication of what he passed through. The scar, of course, is a blemish upon the animal. The surgeon says he has never yet lost a horse in his operations of this kind upon them, and in every trial has effected a cure. It is a painful and cruel cure, and requires skill and nerve to perform it.

By the Sea.

The American stallion imported to Chile two years since, and now owned by J. R. Echerena, at "La Calera," ran a race in Santiago, carrying 114 pounds one mile, winning in one minute and 43¼ seconds. He is the fastest runner known in this country. This stallion is advertised to stand for mares at the rate of $200 the season for thoroughbreds and $100 for half breeds.

The Ramie Plant

Imported from Haywood, Alameda county, a few years since, thrives well in the middle and southern portions of Chile. Inquiries are made for machinery to work the stalk and produce the fiber.

New Gang Plow.

A farmer from Peru has just invented a new gang plow, and is taking out a patent. He has, or is about to apply for a patent in the United States. He claims that his plow cuts in the opposite direction of the old plow and with much less wear and tear to horse and plow, and withal less friction. The American plow cuts the furrow thus /, the new invention the reverse \; and the former cuts with a point and curve, the latter a point and several curves. Those who have seen the invention speak highly of it. Messrs. Clark & Co., of Valparaiso, are the agents. A trial will take place against other plows as soon as the patent is secured. So far the "sweepstake plow," of San Leandro, is ahead of all others, next to which the "Eagle Plow" ranks best, of Ames manufacture.

Chile Plows.

Experienced farmers say they have tried various side-hill plows (imported) on steep side hills, but find the native Chile plow is ahead of them all. It is acknowledged that the American plow is the best on the flat land. The Chile plow on a side hill is worked by running a furrow alongside the hill, and then turning and following above it back again and so on. The seed is, upon conclusion of plowing, sown, and the plow again used to cover the seed, after which a brush drag is used over all. This plow does not cut, but breaks and lifts the soil about four inches, and is light, easily handled and not so hard upon the animals. The cheapest plow in the world—can be made for $1 50, including iron point.

Alfalfa.

The ground is thoroughly plowed and wheat or barley sown. The land is then harrowed and cross harrowed, the alfalfa seed is sown and a light brush drag is drawn over all. As a general practice, the ground is prepared the first rain and sown, the wheat or barley starts first and protects the alfalfa from frost. About a peck of seed is used to the acre. In this country it is customary to irrigate alfalfa up to the time of flowering, but not after; as the flower begins to fade the crop of hay is taken off, and water allowed to run over the field to promote faster new growth. As many as four crops a year are taken off. The first year the alfalfa field is fed off with cattle, and does not produce for hay. The fields must be renewed every seven or eight years; before renewal, should be plowed one year and sowed to potatoes or corn. Alfalfa does not do well on the hills, unless there is plenty of water to use frequently.

"No. 126."

Sugar Cane.

EDITORS PRESS:—In your valuable paper of June 3d, I noticed an article on the subject of manufacturing sugar from melons, in which you are pleased that another attempt will be made to develop our sugar resources. I will not attempt to throw straws in the way of any new enterprise, but all will readily see that the time of melons ripening until they would spoil would not give the manufacturer time to make but a short experiment before the season would close. This would be giving up the old and well tested culture of sugar cane, that experience of time immemorial has proven to be the only safe and reliable plant for the production of sugar.

The ribbon cane of Louisiana grows large; it is so called on account of its yellow and red stripes. It is a great producer. I have known it to yield two hogsheads to the acre (about one ton), and why it would not yield that amount in California with its long seasons, climate and soil, I am at a loss to conjecture. It will be observed that this cane is only planted once in three years. The first yield is good; the second from the stubble is generally the best; the third we plant anew. I have not the data before me but I would judge that one acre of cane would produce more than two of beets, and the expense of culture and labor of beets, twice as great as that of cane.

If our farmers wish to embark in sugar enterprise, let them send to Louisiana and procure a ton or two of ribbon cane, which will give them a start in plants.

The cane ripens from five to six feet high; joints four to five inches apart. These canes are laid lengthways in the furrow and covered with a plow. Each joint produces a stalk of cane. The cultivation is like that of corn, by plowing. No hoe is required, and when the cane is ripe it can be cut down with our common reaper and thrown in winrows. Then it is ready for the mill and kettles.

I have recently visited land on the San Joaquin river that I am confident would produce from 1,500 to 2,000 pounds of sugar to the acre, planted in ribbon cane. The place alluded to is that magnificent ranch of Mr. Chapman's, of your city, and Mr. Montgomery's of this county. I speak of these places on account of water and soil, which there can be no better. To insure the cane from injury in crossing the tropics, it would be well to rap each cane in moss, and to be kept wet and tightly packed. This will keep the saccharine matter from evaporating and the cane from shrinking.

W. C. MCDOUGALL.

Merced, Cal., August 6th.

BEES.

Marks of Crossing.

N. Levering answers the following questions in the Los Angeles *Herald*:

First query: What is the difference in markings, disposition and quality of honey gatherers between bees from an Italian queen and a black drone, and those from a black queen and an Italian drone?

There is but little difference in the markings. Those from an Italian queen have, as a general thing, two yellow bands, while those from a black queen have more commonly but one, and the general color of the bee a grayish cast. Bees breed more after the queen than the drone. As to disposition and honey gatherers there is but little difference, the difference being in favor of the Italian.

Second: What are the markings, disposition and quality of bees from an Italian drone and queen whose parents were an Italian queen and a black drone (second generation of hybrids).

There is not more than one light or small golden band and small, light colored bands around the body, giving the general appearance a grayish cast. In disposition and as workers there is but little difference from the black.

Third: Would it not be necessary to keep one or more drone laying queens in an apiary where artificial swarming is practiced during the latter part of the summer?

Yes.

ARBORICULTURE.

Growing the Pecan.

In *Our Home Journal*, of Louisiana, S. F. Gard has an article on the culture of the pecan tree, which we have mentioned before as a tree well calculated to succeed in this State both for nuts and timber. We select a few paragraphs from Mr. Gard's article as follows.

The pecan tree is a member of the great hickory family, and like most fruit bearing trees has its geographical or climatic limits, within which it grows well and produces fruit to perfection. The soil best adapted to the growth of the pecan, is a rich loam, above overflow, and yet not so high as to be termed a dry soil.

The value of a pecan tree or grove will depend upon the quality of the fruit If the nuts be large and have a thin, paper-like shell, the fruit from a single grown tree will sometimes reach $50. Hence the necessity of planting the very best seed that can be obtained, and care should be taken that the tree from which the nuts to be planted are gathered stands alone, or far away from other pecan trees bearing inferior fruit.

The trees should be planted far apart, so as to give plenty of air, and plenty of room for the limbs to develop and the whole tree to assume a low and wide spread form. When planted too close together, the grove assumes the appearance, habits and growth of common forest trees, all the lower limbs die out, grows tall and bears only on the top and that in limited quantities. From 12 to 16 to an acre on good rich ground is enough.

It saves time and money to plant the seed just where the tree is to stand, instead of planting the seed in a nursery and transplanting the trees at two and three years old, to their places in the field.

The pecan tree needs no cultivation for its own sake. It will grow from the seed to a full sized tree without the use of the plow or hoe. It is a forest tree, with long roots, capable of making their way through the soil and gathering up food like other forest trees without the help of man. But, being a comparatively slow grower at first, and therefore liable to be smothered to death, by the rank growth of weeds, etc., natural to our warm climate and prolific soil, the pecan tree, for the first few years of its growth, needs the assistance of the plow and hoe, to make it a decided success. This assistance, if given with reference to nothing else than the keeping of the trees of the grove clear, will cost some money. But there is no necessity that this outlay for cultivation should be a dead expense. As the land planted in trees can be planted in cotton, sugar, corn, or almost anything that will pay expenses of cultivation, there is, therefore, no necessity that the pecan grove should cost anything more to its owner.

Some pecan trees bear before they are 12 years old, but not enough to pay much. I have seen trees bear as much as one-fourth of a barrel at 12 years old from the seed. At 16 years old from the seed, a pecan tree will bear from one-half to a whole barrel of pecans. At a more advanced age the tree will double or triple this amount.

THE WALNUT TREE.—It has been discovered by the farmers on the plains in Solano and Yolo counties, says the Colusa *Sun*, that the black walnut, although a native in this State of the low lands, is better adapted to the plains than any other tree. All residents of the districts of country at the East where the walnut grows, will remember that a walnut stump is the very hardest to get rid of. It sends down a longer tap root than any other tree, and hence its perfect adaptability to our dry plains. The walnut should be planted first where it is intended to grow, as any transplanting is apt to interfere with the proper growth of the tap root. A large number of these trees have been planted around Dixon, and from a conversation about it with a gentleman fully posted, we concluded that it was the very best thing our farmers could do. The cost of the trees are almost nothing. The seed can be had cheap by the bushel, and the work of planting them amounts to nothing. Planted in this way, the walnut will grow faster than even the locust. The timber is excellent and the fruit is valuable. Farmers will make a note of this and try the experiment the coming fall.

AN ICE BOX.—A huge refrigerator at Brussels can contain 50,000 pounds of meat; there is room for 1,000,000 tons of ice. It covers 18,000 square feet, and contains nine compartments of 30,000 cubic feet each. The walls are double, and filled with moss and sawdust.

The Dairy.

Good Curing Rooms for Cheese.

One of the requisites for profitable cheese making anywhere is a good curing room, so arranged that the cheesemaker can control the temperature and maintain a temperate and even heat. Especially is this the case in many parts of this State, because cheese must he held during the flush time of the milk and not sent to the city to he spoiled by close piling in the commission houses. Too many dairymen are now sacrificing their profits by this style of marketing. Their success in many cases will depend upon having at home a proper curing and store rooms in which the quality of the cheese will be safe until the market will take it at good prices.

A good curing room can be had without great expense, and any investment which is wise'y made in this direction will be quickly returned. One of the most experieneed and successful dairymen of New York is A. L. Fish, of Cedarville, Herkimer county. We visited his farm and factory last fall, and can hear witness to the practical workings of his method of securing ventilation and equality of temperature in his curing room. In a recent issue of the Utica *Herald*, Mr. Fish writes as follows:

The Curing Room.

As a large amount of curing and storage room is required in the cheese factory system, economy and fitness in structure of rooms are important. Cost of building materials for a given amount of room may be lessened by building as near equal in length and width as practicable. A room 40 feet square on the ground contains 1,600 square feet of floor. Reduce its width 10 feet and add the same in length, and it has 1,500 square feet, and so on. A room 10 feet wide by 70 has only 700 square feet; but it has the same outline requiring as much wall and enclosure as the square room, and providing less than half the space. The same rule applies in fencing fields or other divisions of lands; and shows the policy of measuring the girth of an ox to determine his weight.

There are two other points favoring the rule. Less outer surface is exposed to external influences in the wide room, and less filling is required in the walls of the room to reject heat and cold from without. In 1844, having 100 private dairies in charge for shipping cheese, I found the greatest impediment to success in bad curing rooms, and from observation and experience since, I am fully convinced that improper curing rooms are still a fruitful cause for poor quality and low priced cheese. A given amount of constant, even heat is indispensable in cheesing curd; and extreme changes in our market demand a thorough revolution in the structure of our curing rooms.

If the milk is delivered in perfect order and well manipulated and made into cheese, there is no certainty about the character of the cheese at three months old, unless the curing room is constructed to preserve a desired temperature. The temperature should not he allowed to rise above 70 deg. or fall below 60 deg. during the process of cheesing the curd. Breaking down of the curd into marketable cheese is affected by rennet and heat in combined action. Too much heat makes the renuet too active, the cheese porous, and, if carried too far, separates the oil and casein; if too cold, the curd sours and the water dries or leaks out before the curd breaks down into cheese. It is, therefore, essential to keep a constant, even heat, which cannot he done without excluding outside influence at pleasure.

Method of Structure.

Few factories are so arranged, but all may be before the milk season opens. Curing rooms already built may be improved by setting one and one-half inch plank, eight or ten inches wide, like studs against the ceiling, and nailing them to the ceiling. The spaces should be sealed up or lathed, and plastered on the inside. Take out all the windows not wanted for light; widen the frames to those remaining to the thickness of the wall, have a floor board loose above to fill the space between the inner and the outer ceiling; from the floor above fill the space on all sides of the room with dry machine shavings and sawdust, dry tan bark, or some other non-conductor, and the same over head to exclude concentrated heat from the roof or upper room. If there are two stories the upper and lower rooms should he arranged in the same way; place tubes, six to ten inches square, through the side walls once in ten feet down to the floor to admit air from without when needed to change the air in the room. Let them run through inside far enough to saw the inner end off, beveling for a trap door to the upper lip. The inclination of the end of the tube will permit the door to keep shut by its own weight. If two inches from the wall, the weight of the door when turned open against the wall will keep itself open. By the tubes more or less air may be let into the lower strata near the floor, and it will not strike the cheese in a current. Tight tubes 12 inches square should pass upwards and in 10 feet through the center of the rooms with openings at the top of the room through which a draft is formed to carry off dampness from sweat of cheese or excess of heat. If there are two stories the same tubes will serve both rooms, if carried high enough to form a draft.

The same structure should he adapted for storing cheese. After they are cured sufficient for market they should be removed from the curing room to a low temperature, to arrest the fermenting process, and kept there till shipped to market.

The Vineyard.

Grafting Vines.

G. N. Whitaker, of Santa Rosa, writes for the *Cal. Agriculturist* concerning grafting vines. He says he has tried all methods of grafting with but little success except the one below, and has had good success with this form, not losing more than one out of fifty.

"I cut my scions in February, from last year's growth, long enough to include three or four buds, and keep them in a dormant state until the vines I graft in are well started to grow—say one or two inches long. I then remove the earth from the vines down to, or near, the first roots; then rub off all the old loose bark, and saw off from one to three inches above the first roots. With a saw, make one, two or three straight cuts down into the stump. If the stump is small I only make one cut in it, but if the vines are large they will admit of two or more cuts. Each saw cut will admit of two scions, one each side of the stump. With a sharp knife, trim the saw cuts out the proper shape for a wedge graft. Trim the scion to fit accurately, leaving a small shoulder on each side of the scion; then insert in the stump, being sure to push it down to the shoulder, and also make a connection with the bark of the scion and the bark of the old stock. Cut the scion down to two buds. When finished, fill up with fine dirt level with the top of the ground, leaving one bud of each scion uncovered. Drive a stake as near as I can without disturbing the grafts. The stake should be as high as it is desirable to grow the vine, and before the grafts have grown large enough to bend over on the ground, I tie them to the stake, keeping the sprouts pulled off during the first and second years. When the grafts are one year old, in the pruning season, say in January or February, prune out to one and two grafts. This process, with such other necessary treatment as any fruit-grower will observe from time to time, will insure a crop of fruit the second season after grafting. I dig up all the stumps that fail to grow grafts, as it is useless to try to graft them over."

Stock Breeders.

Notes on Stock Selection.

D. L. Evans writes for the *Maryland Farmer* some general suggestions concerning the selection of stock for breeding. They are in the main sound and worthy of remembering: The matter of systematic breeding should engage the attention of every one who wishes to keep pace with the times by raising good stock. That poor stock is fast giving way to improvement is a noticeable feature in some localities; but the popular mind has not yet fully awakened to the fact that the mere cost of producing and feeding poor stock is just the same as with good stock, while the extra price obtained for the latter much more than compensates for what extra care and attention has been bestowed. Many wait for proof to come to them, not taking interest enough in the matter to hunt it up or to try the experiment by way of substantiating the facts. When these facts become plain, then arise the often asked questions of what breeds to procure? what are the best ones to improve common or ordinary farm stock with? and then how to go about such improvement. The first question to decide, is the one whether you want your stock for butter, supposing that you wish to improve your dairy herd, for milk alone or for beef principally; and, having decided this, procure one or more animals which possess the qualities which you wish to perpetuate. If only one animal be purchased let it invariably be a good bull, for it would be injudicious to obtain a cow for the purpose of general improvement, as the male has more influence, other things being equal, in improvement than has the female, although we know where quite a little herd of 16 stock was obtained from a blooded cow and her offspring—though this necessitated the use of a blooded bull in the neighborhood.

It is false economy to obtain the services of a poor bull, even if you obtain it gratis, in preference to paying five or ten dollars for the same services from a blooded animal, for even if you do sell the offspring to the butcher, which may be considered best on account of wanting the milk from the fresh cow, such calf would readily command a much better price than one from a common breed, as the compactness of form and aptness to fatten quickly recommends it.

In Selecting Animals for Breeding,

Too much care cannot be taken to see that they are free from all defects in their physical structure, that they do not possess any hereditary diseases, for if any hereditary ailment lurks in their systems, even if it does not make itself manifest, or only in a comparatively harmless form and scarcely noticeable, it is liable at almost any time to break out with renewed force after one or more generations, and thus the time devoted to improvement is totally lost by inattention to carefully breeding stock. And it very often requires more than a mere close scrutiny to detect peculiarities of this kind, from the fact that there is often no difference, apparently, in the structure and appearance of the animal to warrant one in pronouncing condemnation; so that, it is necessary to have some previous knowledge of the stock you wish to purchase, or else buy of one in whom you can place implicit confidence in selecting stock for you, either from his own herds or from the herds of other breeders he may have a full knowledge of.

More care is necessary in purchasing from fresh importations than from the herds of some well established breeder, as the animals are generally, not so well known, at least in regard to their healthfulness, strength of constitution and dairy qualities; but in both cases caution is advisable, and, more especially in purchasing young stock, as it very rarely happens that any hereditary ailments show themselves at or so soon after birth, although they may become very evident when the animal or animals become fully grown, when it is impossible to prevent loss of both time and money, the former often being the most serious of the two. Rheumatism, dysentery, diarrhea, consumption and scrofula, as well as malignant tumors, are hereditary diseases which affect cattle, the approach and course of either or all of which should be made the subject of careful attention, to discover whether it is merely temporary or otherwise, and direct our course accordingly.

Short Horn Prices.

The *Country Gentleman* compiles the following showing the average price gained for Short Horns at the spring sales of this year at the East:

Date and Place.	No.	Average.	Total.
April 6, West Liberty, Iowa	77	$333	$25,610
12, Galesburg, Ill.	54	355	19,190
25, Mechanicsville, Iowa	58	199	11,565
May 2, Springfield, Ill.	18	351	6,320
3, do	38	934	35,505
3, do	29	139	4,020
4, do	21	434	9,115
5, do	55	344	18,920
10, Marshaltown, Iowa	80	212	16,980
16, Louisiana, Mo.	44	219	9,630
22, Freeport, Ill.	84	237	19,875
23, Franklin Grove, Ill.	54	243	13,125
24, Franklin Grove, Ill.	47	257	12,065
25, Dexter Park	65	1,082	70,320
26, do	67	273	18,325
26, do	48	372	17,835
31, Cambridge City, Ind.	64	323	20,695
31, Cambridge City, Ind.	10	590	5,900
June 1, Jacksonville, Ind.	50	292	14,610
1, Indianapolis	38	103	3,900
6, Carrollton, Ill.	44	170	7,465
7, Berlin, Ill.	59	233	13,720
14, Toronto	53	1,719	91,075
15, do	35	327	11,435
16, do	56	252	14,105
14, Table Grove, Ill.	19	111	2,115
14, Table Grove, Ill.	19	91	1,735
15, Baraboo, Wis.	12	117	1,405
15. Utica, Iowa	49	373	18,275
	1,347	$382	$514,835

Of nine English sales reported by a London authority, 295 head brought an average of $236.

A Sale in Kentucky.—A dispatch from Paris, Kentucky, dated August 10th, says: In the sale of George M. Belford's Short Horns to-day, the celebrated bull, 14th Duke of Thorndale, sold for $17,900; another bull sold for $6,000; 48 cows and heifers brought $37,640.

Horticulture.

Banana Growing.

We find in the *Florida Agriculturist* some interesting facts concerning bananas. The questions asked and answers may not all have arisen in the experience of our growers, but they are excellent things to have in memory in case conditions should arise like those described. The writer is Benjamin Hall, of Ocean View, Florida, and his statements are these:

Permit me, through the columns of your paper, to reply to the following inquiries: 1st. What is the probable cause and the remedy of a disease that attacks the banana tree at the base of its trunk, causing the tree and roots to die, and often extending to every shoot in close proximity? Reply: This is almost the only disease incident to the genus "Musa," and most frequently occurs in groves after the second year from planting. This species of vegetation is equally as remarkable for its exhausting character to the soil as for its rapid and vigorous growth. Its roots rarely exceed four feet in length, and hence many properties in the soil essential to the natural growth and health of this tree are soon exhausted. The chemical analysis of this tree and its fruit demonstrate that it requires a large supply of potash, lime, soda, magnesia, phosphoric acid, etc. Hence it may be stated that this disease results from an exhaustion of the above specified properties in the soil, and consequently can be entirely avoided by timely application of hard-wood ashes (which contains all these properties) around the trees. If a proper course is pursued they will continue growing, fruiting, and healthy indefinitely.

First set eight by 12 feet, and under no circumstances permit more than two shoots or suckers to remain beside the parent tree, which is the first to fruit. After its fruit shall have been gathered the tree should be removed, roots and stalk, leaving the two suckers dependent on their own roots; around each stool should be applied twice a year one-half bushel at each time of hard-wood ashes, lightly mixed with the surface soil, without disturbing their roots. I have stools treated in this manner that have fruited six years continuously without disease or decrease in size of fruit or bunches. In many parts of the tropics after the third or fourth year from planting, the plants are taken up and moved occasionally, not exceeding four or five feet from their original positions. By so doing the trees continue healthy and fruitful.

Inquiry No. 2. My banana grove is planted on low, rich hammock land, the trees are vigorous and healthy, shy bearers, and their bunches are small. Reply: The difficulty in this case evidently results from one of two causes, or from both. Planting banana trees in crowded positions has a direct tendency to produce this result, but not to the extent that cold does. The mercury may not indicate an intensity of cold requisite to the destruction of the banana tree, or even of its leaves, yet ample to seriously effect its fruiting, and especially the size of the bunches, and cause the entire difficulty in this case. In connection herewith I would reply to the following inquiry that appeared in a former number of your paper: Why do banana-growers cut the bud from the stem below the new-formed bunch? Reply: I would say that no general or vital principle was involved in so doing. After the bud has reached a point in its progress or development where it ceases to open, usually two feet in the larger varieties from the lower end of the bunch, it commences to die back, and continues to die to within three or four inches from the lower end of the bunch, the place where the stem is usually severed to divest it of its bud. This custom is confined to the States of Florida and Louisiana, and was practiced for the purpose of making the growing bunches more sightly.

I would again invite the attention of those about to engage in the cultivation of this genus to the adaptability and superiority of the Cavendishi, Decca and Royal Dwarf varieties, as possessing merits unequaled by other kinds.

The editor says: We corroborate Mr. Hall's statement regarding the fertilizer for the banana. In the West Indies nothing is used but hard wood for cooking, and the ashes are thrown to the banana roots. We have seen them bearing for several years, treated in this manner.

The Olive in Australia.

At the last meeting of the Adelaide Chamber of Manufacturers, says *Town and Country*, the president read the following notes, which he had culled from a letter written to him by M. Centaurini, a gentleman who had recently visited the olive plantations in and near Adelaide: "I have to thank you for the assistance you have rendered me on my recent arrival in this colony, by the introductions with which you have so frequently furnished me to persons engaged in the manufacture of olive oil in this colony. It has occasioned me no small astonishment to find the trees so thickly laden with very valuable berries, representing returns which would be considered fabulous in my native country, Italy. I found the trees in my opinion, much neglected in their earlier growth, by allowing them to become so thickly wooded that evidently it will become a very difficult matter to get among the branches, and I am convinced that in a few years it will be necessary to destroy a large percentage of the trees in these plantations to afford sufficient room for the remainder. In many or the olive plantations I am convinced that the soil is so very rich that it will necessitate other cultivation between the rows to give sufficient scope to the growth to which I am convinced the trees will attain in this climate, and any new plantations should be laid out in rows of forty feet apart all ways, thus allowing of the cultivation of flowers for perfumery or other low growing crops."

"I had an opportunity of tasting the oils of different plantations, and consider them quite equal to the average oils of Italy, and with careful management will come up to that of the very best Lucca. From my conversation with the various gentleman connected with this industry, I find great stress laid by them upon the high rate of wages and their deterrent effect upon their operations; but considering the cheapness of the land, the ready market for the oil, the excellence of the oilmate, and the luxuriance of the soil, I consider this difficulty of wages could be satisfactorily overcome. But I am quite convinced that this undertaking must be conducted on a much larger scale, and combined with other enterprises. such as the expressing of other oils, the growth of flowers for perfumes, etc., to utilize to the best advantage the labor and machinery requisite for its proper management."

Estimating the Value of Coal.—In an exchange we read the following concerning the display of coal from the Cape of Good Hope, at the Centennial: The display of fuels, though occupying but little space, is entertaining and instructive, for quite a variety of coals are exhibited, each accompanied by its coke and ash. To us this means of exhibiting fuels is remarkably appropriate, and is worthy of imitation; for by an examination of the physical properties of coals, their cokes and the resultant ash, an intelligent opinion of the commercial value of the fuel can be formed.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Copies of the Constitution and By-Laws of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

P. of H.—Subscribers who pay fully one year ($4) in advance for the Pacific Rural Press can receive the California Patron *free*, or other premiums. See our premium list in another column.

Grange Directory.—A full list of Subordinate Granges, Masters and Secretaries, of California and Nevada, is published as often as once a quarter in this department. See issue of July 8th for latest insertion.

The Grangers' Wheat Enterprise.

We have noted in a general way the movement among the Granges to handle wheat on their own account. The plans were laid in the confidence of the Order, and we could not speak of them in detail until now. In order to give our readers an outline of the beliefs and policies which the meeting approved, we cannot do better than present the scheme of action adopted as embodied in the resolutions, which were presented and affirmed by vote.

Tuesday, July 25th, 1876.

Amos Adams, Secretary of the State Grange, being called upon presented a series of resolutions which were read, passed upon, and on motion of J. P. Jones, of Contra Costa county, were in due form approved and adopted as the sense of this Convention as follows, to wit:

1. *Resolved*, That unity of action is of paramount importance, and without it success cannot be attained.

2. *Resolved*, That the aggregation of the wheat crop, not at one point, but that all orders for the purchase of wheat should be sent to one central agent, is of little less importance than that unity of action should be adopted.

3d. *Resolved*, That experience has shown us that wheat in large quantities can be sold at from 50 cents to $1 per ton more than can be realized for small lots.

4. *Resolved*, That the Grangers' Business Association of California, be and is hereby constituted our agent for the sale of the crops of wheat for the year 1876.

5. *Resolved*, That our agent shall conform strictly to the written instructions given by the owners of wheat; that, should any of the consignors to the house desire to ship wheat hence to European ports on their own account, such facilities for so doing as the Association may be able to obtain shall be extended to enable them so to do, and if our said agent, the Business Association, is authorized, by the owners of the wheat to draw advances on the same; then, and in that event, the amount so drawn shall be immediatedly paid into the Grangers' Bank of California to the credit of the owner of said wheat. It shall also be the duty of said agent to procure "tonnage" as low as possible and do all things belonging thereto on terms as advantageous to the growers of wheat as possible.

6. *Resolved*, That, should the owners of wheat desire advances thereon, said agent shall obtain storage and interest at as low a rate as can be obtained.

By Mr. Greene of Colusa was offered the following in addition, which was in due form adopted:

Resolved, That Patrons throughout the State who desire to sell wheat are by this Convention recommended and requested to send the Grangers' Business Association, at San Francisco, statements showing the amount they have on hand, where the same is stored, how it can be forwarded to this city, and that said Association be instructed, by said parties, to hold the same for sale, at stipulated prices, until otherwise ordered.

By Mr. Larue of Sacramento was offered the following resolution which was by the Convention in due form adopted:

Resolved, That we recommend the Patrons in this State, to entrust the sale of their crops of wheat for the year 1876, to the Grangers' Business Association of San Francisco.

By Mr. J. P. Jones of Contra Costa county was offered the following additional resolution which was in due form adopted:

Resolved, That each person present at this Convention be requested to ascertain, as nearly as possible, the amount of grain in their several localities and report the same to the Grangers' Business Association of San Francisco.

Addresses were made by about 50 of the leading wheat growers of the State to the points that present prices of wheat do not justify sales; that the prices obtainable are not above the usual cost of production; that, wherever possible for farmers to do so it is best for them to hold over for a year a part of this crop equivalent to what they would probably raise next year and, becoming purchasers of themselves at cost price, save the labor to themselves and their families of raising another crop, thus allowing the farms to rest for a year.

The propriety of shipping wheat to Europe then came up for discussion, but the session having extended to near midnight, on motion, the Convention adjourned to Wednesday at nine o'clock A. M., July 26th.

Wednesday, July 26th, 1876.

Convention called to order by Chairman J. D. Blanchar.

The subject of the shipment of wheat by Patrons on their own account being resumed, general discussion ensued, participated in by Messrs. Applegarth, McIntosh, Fowler, Larue, Colter, Inman, Ostrander, Gray, and many others; Mr. Costigan gave information upon all matters of freight, commissions and others of like interest.

The prevailing opinion was in favor of keeping the Grangers' Business Association always supplied with enough wheat to load a ship whenever the manager of that house should find it desirable so to do, and to that end subscription papers of wheat to be shipped were presented. It was found to be best to load first a ship at Oakland, and by wheat growers, whose point of shipment would be there, was subscribed 1,500 tons for that purpose. Others in attendance, whose shipping point is Vallejo, signified their willingness, as soon as their grain was ready, to load there a second ship, should the manager deem it advisable so to do.

By J. V. Webster, Worthy Master of the State Grange, was offered the following preambles and resolutions which were in due form adopted by the Convention:

1. Whereas, Wheat cannot be produced with any profit to the producer for less than $1.65 per cental in this market, and holding, as a principle of our Order, that the laborer is worthy of his hire; and

Whereas, Tonnage has been secured by designing parties, at a rate in excess of a fair compensation for the same, with the design of controling freights and consequently the price of grain, therefore be it

Resolved, That it is the sense of this Convention, and we hereby recommend to the Patrons in this State that no wheat be sold for less than on a basis of $1.65 per cental in San Francisco, and if said rate cannot be obtained, we recommend to Patrons who desire to dispose of their crops, to ship their wheat direct to foreign ports.

2. Whereas, The difficulty of obtaining money from the business centers with which to pay the current expenses of the farm is so great as to seriously embarrass the agriculturists of the State, and

Whereas, The drain of the country is the result of the production of only a few of the staples of commerce, the proceeds of which are exhausted in furnishing supplies, many of which should be supplied at home, therefore be it

Resolved, That we are willing and ready to aid, encourage and support woolen mills, sugar mills, and all other industrial enterprises tending to develop the country, and thereby retain the proceeds of our crops therein.

By Mr. Larue, was offered and by the convention duly adopted, the following resolution:

Resolved, That the Grangers' Business Association be and is hereby requested to prepare and forward to the subordinate Granges a circular giving full information and details as to cost of shipment of wheat, price of sacks, and all matters in that connection of interest to wheat growers.

By Mr. H. J. Ostrander, was offered and by the convention adopted, the following resolution:

Resolved, That the capitalists of San Francisco by refusing to loan money on warehouse receipts in the interior, are doing the farmers of this State a great injustice, as well as to all other business depending upon the success of farmers.

By Mr. Thompson, was offered and by the convention adopted, the following resolution:

Resolved, That the proceedings of this convention be sent to the Grangers' paper, the California Patron, with the request that the same be published in the recognized organ of the Association of Patrons of Husbandry.

By Mr. Fowler, was offered and by the convention adopted, the following resolution:

Resolved, That the Grangers' Business Association be and hereby is recommended to address and forward to the Subordinate Granges a circular with properly prepared blank statements attached, and accompanied with a request to the officers and members of the Subordinate Granges that they will fill out and return the statements filled out in such manner as to exhibit the amount of wheat on hand and the probable amount of this year's crop.

By Mr. Applegarth, was offered and by the convention adopted, the following resolution:

Resolved, That to the Grangers' Business Association be and is hereby suggested the propriety of employing and sending to wheat farmers proper persons to solicit their co-operation in carrying out the suggestions made by this convention, and embodied in the resolutions thereof.

By Mr. Larue was offered and by the convention adopted, the following resolution:

Resolved, That when this convention adjourn, it so adjourn to Tuesday, August 22d, 1876, at half-past seven o'clock P. M., then to again accept the invitation of Golden Gate Grange, to attend the meeting of that Grange, and further proceed with business of especial importance to Patrons of industry engaged in wheat growing.

By Mr. Russel, was offered and by the convention adopted, the following resolution:

Resolved, That the thanks of this convention are hereby tendered to Golden Gate Grange for its interest manifested in the welfare of the grain growers, for calling this convention, and the many acts of courtesy by which that Grange has characterized this meeting.

On motion, convention adjourned.

Fred. K. Rule, Secretary.

Women in the Grange.

A Sister writes to the *California Patron* these forcible words: I am one of those who appreciate the Grange; its principles being founded on justice and right. Our sex has not been overlooked; the same rights and privileges are accorded to us that our brothers enjoy, and we should show by our acts that we appreciate them. How can we show it better than by regular attendance at the Grange, and while there by words and acts encouraging not only to our sisters, but our brothers also. Indeed, the sisters being by nature more enthusiastic, can, by cheerful words, in many ways create a lively interest in the Grange. And now sisters, right here is the field for our work, let us do all we can by good example to arouse anew the enthusiasm of our lukewarm brothers, and sisters, too; let us talk, sing, do anything proper to make the Grange meetings lively and interesting. I don't like to see in the Grange all the sisters ranged on one side of the hall like so many wall flowers, or wax dummies, without saying a word or taking any part in the exercises. I don't like it, and always sit by the side of my husband. Now I think we should all do likewise; and would also suggest that during the meeting of the Grange a recess be taken, which will give us a chance to become better acquainted with each other, and to discuss the many topics of interest to us.

Let us attend the next meeting of the State Grange in full force, and take our regalias with us, and go there prepared to sing the pretty songs of the Grange, for music lends a great charm to such gatherings.

One word to the sisters of any Grange where the brothers are so lukewarm that they are ready to allow their Grange to pass out of existence, if such should be the case, and they cannot be brought to a realizing sense of their duty, so long as there remains enough women (13) to keep their charter, let them cling to it, as a drowning man clings to a spar; let our motto be "No Surrender." Let us show the brothers that *we* appreciate the benefits conferred on us by the Grange. Sisters heed these words, and let us make our loved Grange, if not "a thing of beauty," at least "a joy forever."

The Feast of Pomona.

As the annual meeting of the State Grange is near at hand, and as we expect to have a large attendance of Patrons from all parts of the State, including many who are entitled to receive the fifth degree of our Order, it is meet and proper that we should begin in good time to make preparations for that happy reunion. We expect and ask that our brothers, who are fruit growers, will send samples of their fruits, nuts, raisins and such other fruit products as they may see fit, and send it to the care of the Grangers' Business Association, and freight will be paid here. A hall will be secured, where these fruits will be exhibited, the name of producer and the variety attached to it, and at the conclusion of conferring the fifth degree, the State Grange and members of the Order will proceed to the exhibition hall, where after examining the fruits, etc., there, all will join in the Feast of Pomona. Therefore we hope that our fruit-growing brothers will remember us for that occasion, and either come themselves and bring their fruits, or ship as above.

To insure the success of this exhibition and feast, the following sisters have been appointed by Worthy Master Webster a committee to make the necessary arrangements: Sister J. M. Thompson, of Napa; Sister L. E. McMahon, of Dixon; Sister R. B. Blower, of Woodland; Sister A. T. Dewey, of Oakland; Sister I. A. Wilcox, of Santa Clara; Sisters J. D. Blanchar and A. W. Thompson, of San Francisco. These sisters will please report their acceptance to the Secretary of the State Grange.—*California Patron.*

Incorporated.—The fruit growers' meetings which began at Golden Gate Grange, as noted in the Press, has resulted in an incorporated company for the purposes of fruit shipment, etc. The official list of incorporation contains the following: "The California Fruit Shipping Company; object, to deal in all kinds of fruit produce, and to act as forwarding and commission merchants; capital stock, $50,000. Directors: C. H. Dennison, W. B. West, J. Lewellen, A. W. Thompson, J. D. Blanchar."

A large amount of the capital stock has already been subscribed. The association will be ready to ship grapes within a few weeks in patent refrigerator cars. The officers of the Grange organizations have been assured by the railroad company that the project which is of such importance to the State will be favorably considered and every possible concession made. While the shipments of fruit were small and irregular the company could not afford to lower their freight. The association will not be composed exclusively of Grangers. All fruit growers are invited to become stockholders. The fruit will be bought from the producers and shipped by the association for Eastern markets where an active demand for it exists. The principal counties from which fruit will be sent are Napa, Sonoma, Yolo, Sacramento, San Joaquin and Placer. The latter county being remote from San Francisco and directly on the line of the railroad will be the heaviest shipper.

Antelope Grange and the Panama Route.

Editors Press:—The following preamble and resolutions were passed by Antelope Grange, No. 98, P. of H., on the 5th day of August, 1876:

Whereas, Agriculture is the leading interest of the Pacific coast, upon which all other industries are dependent. From the peculiarity of our climate, which renders a diversity of crops impracticable on a large proportion of our grain land, the farmer is necessarily compelled to raise wheat, of which grain there is produced annually a large surplus, which must from necessity seek a foreign market. It is estimated that California and Oregon will export a million tons of wheat and barley of this season's crop. There are in California, Oregon and Washington Territory millions of acres of good wheat producing land not yet brought into cultivation, which will, in the near future, be broad fields of waving grain. With this additional area, added to that already under cultivation, we will have, in a favorable season, 1,500,000 tons for export. To market this amount of grain will require 1,200 ships, which, at $20 per ton freight, will cost the farmers $30,000,000. The distance it will have to be carried is about 19,000 miles, having to cross the equator twice and to encounter the dangers of the tempestuous waters off Cape Horn, where storms ever abound, rendering it one of the most perilous routes known to commerce. And

Whereas, The Suez canal has brought the rich fields of India within easy reach of the European markets, India, with her rich land, cheap labor and low freight, cannot fail to have a depressing influence upon the grain markets of the world, and will thereby inflict a dire calamity upon the agricultural, commercial and all interests of the Pacific coast. To try to avert which would be the part of wisdom, our only remedy would seem to be a ship canal across the isthmus of Panama. That would shorten our distance to market one-half; reduce the number of vessels required for our need one-half; give us quick returns; save to us annually, in the item of freight alone, many millions of dollars. It would rapidly settle up the Pacific States with a desirable class of people, and give new life and impulse to every industry. Therefore be it

Resolved, That, recognizing the immediate necessity of averting the threatening evils above mentioned, we, as members of this Grange, hereby express our decided conviction that this end can only be accomplished by the construction of a ship canal across the isthmus of Panama.

Resolved, That we believe it to be the duty, as well as to the interest of the government, to encourage the building of such a canal, and to retain control of the same.

Resolved, That we hereby call upon our sister Granges, and the representatives of other interests throughout the Western coast, to fully consider this subject and to unite with us in asking our Senators and Representatives in Congress to use their influence to impress its importance upon the government.

Resolved, That we request our Worthy Master to bring this subject before the State Grange at its next meeting.

Resolved, That we send this preamble and these resolutions to some of the leading newspapers of this coast for publication.

T. F. Hughes, Secretary Antelope Grange.

Open Meeting of Temescal Grange.

A free discussion, under the auspices of Temescal Grange, No. 35, will be held at the council chamber in the city hall, Oakland, on Saturday evening, August 19th, at which the following resolutions, together with other matters, will be discussed:

Resolved, That a free market should be established in Oakland, where all products of the farm and garden may be sold without cost to the producer.

Resolved, That all tax or license should be removed by the City Council, which is now imposed by ordinance upon the sale our home products, when sold by the producer.

A cordial invitation is extended to all persons interested in the subject to attend and take part in the discussion.

Wheat Growers Attend.—An adjourned meeting of the wheat growers will be held on Tuesday evening, August 22d, 1876, at Huddy's hall, 909½ market street, S. F. A general attendance is requested, as business of importance to the wheat growers will come before the meeting for action.—Amos Adams, Secretary Grangers' Business Association.

Wool Growers and Stock Raisers.—We are informed that there will be a meeting of wool growers and stock raisers, under the auspices of Golden Gate Grange, at some near date in the future. Due notice will be given of the meeting.

Many Grangers in Texas are offering premiums to their members for the best cultivation of various products. The competition thus induced cannot fail to be beneficial.

In Memoriam.

NEWCASTLE GRANGE, No. 241, P. of H., July 12th, 1876.

Whereas, Death in its resistless march has taken from the field of our labor Brother William Smith, formerly Treasurer of this Grange; therefore in token of respect to his memory as a most worthy officer and estimable member of our Order, and as a tribute to his merit as an upright, honest and conscientious citizen, and kind husband and father, be it

Resolved, That this Grange wear the usual badge of mourning for 30 days; that these resolutions be spread upon the minutes, and that a copy be sent to the bereaved wife and family, and also to both of the Placer county papers and Rural Press for publication.—Committee: Miss M. J. Nixon, Mrs. J. H. Mitchell, Mrs. W. H. Brainard.

EL DORADO GRANGE, No. 178, El Dorado, Cal., Aug. 8th.

Whereas, Since our last meeting the Divine Master, in his infinite wisdom, has seen fit to take from us our worthy sister, Mary Bryan, therefore be it

Resolved, That in the death of Sister Bryan, El Dorado Grange has lost an esteemed member and the bereaved parents a kind and affectionate daughter.

Resolved, That the members of this Grange wear the usual badge of mourning for thirty days.

Resolved, That these resolutions be spread upon the minutes of the Grange, a copy sent to the family of the deceased and also to the El Dorado *Republican* and Pacific Rural Press for publication.—[Committee: C. G. Carpenter, S. L. Carpenter, C. J. Sheldon.

Agricultural Notes.

ALAMEDA.

Fatal Explosion: Livermore *Enterprise*, Aug. 12.—On Saturday last the steam threshing engine working upon the ranch of Jorden Jergenson, about five miles north from here, blew up and killed David H. Jenkins, a young man about 22 years of age, recently from Waterville, Wisconsin, his native place. He was doing duty as fireman, and was in the act of putting in the straw fuel at the instant of the explosion. The cause of the disaster as stated by the engineer, James Lathbury, appears to have been the unlevel situation of the engine. The ground where the engine stood was sloping, and it was supposed that sufficient blocking up on the lower end had been done to correct the incline and level the engine. Some threshing had been done, possibly half an hour's work, when a stop was necessitated by the fall of the belt off the fly-wheel. Upon making the start after adjusting the belt the blow-up occurred. Mr. Alexander Watt, the foreman of the work, was in the act of guiding the belt with a spade in hand at the time. The separator manager, Mr. Crapo, was crouching under the belt between the engine and the separator and the engineer was standing at the front a few paces away. The force of the burst was terrific. No time for thought or reflection or presence of mind, a crack and a bang and all was over. Three of the four men above named were severally pitched off their feet and rolled down the hill side half stupefied ; the other was shot into the air and fell fully sixty feet from the engine—this was the unfortunate young victim, Jenkins. The engine, or what was left of it, bounded nearly fifty paces distant and fell wheels uppermost. The concussion was so great that the men working on the derrick wagon and on the separator, were struck down like so many ten-pins. Large pieces of iron were projected with such force at the separator machine as to break several parts of it, and the feeding board was shattered into fragments. A piece of iron weighing quite fifty pounds, was discharged clear over the separator and fell some 193 feet beyond. An inquest was held by acting Coroner Church and jury, at which the engineer and others were examined. The engineer excused himself by saying that the owner of the machine interfered with him when he was busy leveling the engine. The jury brought in a verdict according to the facts and censured both the engineer and owner severely for their share in the man's death.

BUTTE.

Lack of Barley.—*Enterprise:* We understand that there is likely to be a great dearth of barley this season; farmers as a general thing devoting their attention to wheat raising. We are informed that the people of Hamilton township will not have enough for their own use, while parties from Colusa have been here this week offering a good price for barley, and could not get it. Barley will be worth more than wheat this year.

COLUSA.

Killed in a Separator.—*Independent*, Aug. 12: Mr. Endicott, of the firm of Bailey, Endicott & Horner, who were threshing on the Schultz ranch for Messrs. Isaacs & Henry, 12 miles from Colusa, yesterday morning, gave us the particulars of an accident which occurred to one of his hands at about six o'clock on Thursday. Dominick Deveny, the man injured, was feeding the draper of the machine. A considerable quantity of straw had been piled on the derrick table above him, and fearing that the next load of the fork would drop on him he jumped, aiming to land on the cylinder cap; but in doing so his foot slipped and he fell upon the self-feeder. His feet caught between the cylinder and the concave, and having on a pair of heavy cowhide shoes, he almost stopped the machine, when the belt was thrown off. The cylinder tore off one of his legs just above the ankle and the other at the knee. Both legs were amputated by Dr. Tooley, but the man died from the shock.

MARIN.

Feed.—*Journal*, Aug. 10: Mr. Peter Tinini tells us that feed along the Tomales Bay country is better than last year. He milks 258 cows, on two ranches, and has packed 30 barrels of butter. Mr. T. is roadmaster in his district.

MONTEREY.

Fire.—*Democrat*, Aug. 12: Last Wednesday, about noon, two and a half miles from Gonzalez, in the northwest corner of the rancho of that name, two settings, or 400 sacks of wheat, belonging to Ed. Boland, were destroyed by fire. It required strenuous effort to prevent the flames from spreading. No threshing had been done near the stacks for several days and the supposition is that the fire was occasioned by the ignition, through the sun's heat, of matches, dropped by tramps, who, as surmised, had been sleeping near by.

Fine Yield of Wheat.—*Index*, Aug. 10: We have been shown some wheat by Harry Hudson, of the Empire mills, that was raised about three miles below Salinas City, by Mr. J. Barbree. The field contained 28 acres and produced 660 bags weighing 135 pounds to the bag, making a total of 89,100 pounds, or a trifle over 53 bushels to the acre. What would our farmers in the States think of such a yield as that? The wheat is all of a good milling quality.

NAPA.

Opening for Wine.—St. Helena *Star*, Aug. 11: Mr. Joseph Willis, whose mission in the East in the interest of St. Helena wines we have had frequent occasion to notice, returned Tuesday night after an absence of over four months. He reports establishing a trade for California wines which will be a permanent one, but which nothing but pure wines will satisfy. The market had been theretofore much imposed upon by poor wines, and it took considerable time and labor to overcome the prejudices this had raised; but by persistent effort, and giving them none but the best article, he thinks he has conquered it at last and opened the way for a fine trade. He says the people of Kansas City, Mo., (which has been his headquarters, and where he has established his agency), are as good judges of wine as he ever saw, being mostly Germane and knowing 'good from bad without any telling. He thinks of going back presently, to remain.

NEVADA.

Freights.—*Tidings*, Aug. 12: Freight charges from Marysville, Wheatland, Sheridan and stations in that part of the country, to Grass Valley, on grain, flour, ground feed, shorts, bran, etc., were fixed at the meeting of the directors of our narrow gauge this week, at $7·50 per ton—Nevada City, $7.75. This reduction will be likely to give all such transportation to the railroad in the future, and be a great benefit to this county.

Fruit.—Fruit shipments are the order of the day down at William George's. Hundred of boxes have already been shipped and orders in for 40 boxes a week for two different firms over the mountains. People over in the sage brush have found out where the good fruit comes from and order accordingly.

PLACER.

Light Grain: Placer *Herald*, Aug. 12.—Some time ago we published an item to the effect that the grain in Western Placer was turning out better than had been anticipated. We based the item on a report that came indirectly from that part of the county. County Treasurer A. J. Soule, who has a large farm in that portion of the county, informs us that such is not the case, that the grain yield is light, not averaging, perhaps, more than ten bushels per acre. This fact, in connection with the low prices at which grain is ruling, makes the aspect of our Placer county farmers somewhat different than we had hoped.

Foothill Produce.—Less than a year ago Mr. F. Neirhoff and his wife settled on a piece of wild foothill land about two miles south of Auburn, and began to improve it, and last Monday, Mrs. Neirhoff left with us liberal samples of the vegetables they have raised, not merely as evidence of their individual success, but as additional proof of the extreme productiveness of this foothill country when properly tilled. A small sack full of string beans, equaling in both size and quality the very best ; a lot of tomatoes, the equals of which are seldom seen outside the exhibits at a State fair; potatoes, of the early rose variety, as fine as potatoes could be, and a water melon that brought down the scales at something over thirty pounds, were among the varieties left, and for which Mrs. Neirhoff has our thanks. For, as a gift it was generous, as a sample of foothill production, it was more than worthy, since few countries on the globe can show vegetables of their kind as large and as well flavored, or as fine in appearance as those were. They have been on their place, as we remarked above, less than a year, and yet Mrs. N. informs us that they have raised sufficient hay to feed their team and a cow until another season, and their vegetable garden, which was planted for home use, has so far exceeded their expectations in its yield, that they will have large quantities of vegetables to spare. This illustrates what can be done by a little work in a short time in this section of the country. In a few years, by continual improvement, Mr. Neirhoff will have a place that for health and genuine comfort a prince might covet.

SACRAMENTO.

Buckwheat.—*Record-Union*, Aug 12: Buckwheat is one of those crops that can be sown and raised late in the season, and on account of this peculiarity is well adapted to our low river bottoms or tule lands after a wet winter. We are informed that some of our farmers on the Sacramento and Feather river bottoms, in Sutter county, are now engaged in putting in this crop. The only risk in this crop in this section is that it will come in blossom during a warm north wind, which will cause it to blast. If it escapes this casualty the crop is as profitable as that of wheat or barley. There is a great deal of land along the Sacramento river upon which a good crop of buckwheat might yet be made if sown within this month.

Successful Importation of Shad.—There arrived, by yesterday morning's express train from the East, an importation of young shad, numbering about 120,000, under the care of F. N. Clark, of Northville, Michigan, proprietor of a very extensive fish hatching establishment at that point, and also an agent for the United States Fish Commission, assisted by T. H. Dean, a gentlemen connected with the Smithsonian Institute. They left Holyoke, Mass., just a week previous to their arrival here, and so intelligently and carefully did they attend to their trust, that it is thought scarcely 1,000 of the fish died while in transit. The little shad, none of which were more than nine days old, were remarkably lively and healthy when they reached Sacramento and when they took their departure from here for Tehama, where they were last evening planted in the Sacramento, where they were last evening planted in the Sacramento, at the same place the first importation were given to California about four years ago. Messrs. Redding and Throckmorton, of the California Fish Commission, met the new arrivals here. The Commissioners were both exceedingly pleased at the fine condition in which the shad arrived, and heartily congratulated Mr. Clark and his associate upon the successful result of their exceedingly tiresome exertions. The fish attracted much attention while at the depot, everybody appearing to feel a personal intereet and gratification in their arrival.

SANTA BARBARA.

Wild Honey.—Lompoc *Record*, Aug. 5: Now is the time to take up wild honey. We know of one man who has found 60 trees on the contested portion of the Purisima rancho. A man with any knowledge of the business can secure a barrel of strained honey in two days.

Dairying.—Mr. Raymond, who successfully operates a cheese dairy in San Benito county, is here looking at our fine grazing land in the Hondo, with a view of locating. We have always contended that the climate, fine feed, good, tillable soil and living water in the Hondo makes it one of the finest locations in California for a cheese factory.

SAN JOAQUIN.

River Navigation.—*Independent*, Aug. 11th: The steamer *Harriet* arrived from Crow's Landing yesterday with a large load of 4,000 sacks of wheat. She left again for the same point towing the barge *City of San Francisco*, light. One more trip will be all she will be able to make this season, as the water is falling very rapidly. There are two bars above San Joaquin City and one below where the water is scarcely three feet deep, and over which navigation is very difficult for vessels of the lightest draft, amounting to but little more than a heavy dew.

Union Island.—The owners of Union Island, in this county, are petitioning the Board of Supervisors to make a new swamp land district of that island. In case the measure is accomplished the reclamation is to be begun at once on a scale never before attempted in swamp land reclamation. A large machine, costing twenty thousand dollars, which bores the earth from the river bed and pumps it out in a liquid state upon the land, is to be used. The work is of vast importance to the county, and would add to taxable property to the extent of many hundred thousand dollars.

SOLANO.

Two Men Killed by an Explosion—Cor. *Call*, Rio Vista, Solano county, Aug. 9: A dreadful accident occurred in the Montezuma hills, a mile and a half from this town, yesterday. A threshing party had just moved to the farm of Mr. Columbus Sawtelle, and had commenced to thresh his grain. The party numbered about 20 men. About 4 P. M. a terrific explosion occurred. The front part of the boiler is composed of one piece and the driver's seat is affixed to it. This piece of iron is about three feet in diameter. It was blown from the boiler, between the stacks, over the separator to a distance of 180 paces. In its course, it struck John Newton, killing him instantly. It also threw down other men and seriously injured one; breaking up the gearing, bands, etc. At the other end of the engine was the furnace. A Chinaman was feeding this with straw. The explosion forced him away from the boiler a distance of 75 or more yards. Fragments of the furnace doors, the smoke-stack, fork handles and teeth, and the heavy fire-box lay in the same line as that over which the Chinaman had been driven. Evidently, the huge fire-box of the furnace had burst out from the boiler, caught the Chinaman, carried him away to the spot where he was found, then traveled on some 50 yards farther and lodged on the ground. The poor Chinaman seemed to be scalded from head to foot—literallly parboiled. He was blinded and the left limb broken, below the knee. Dr. Pietrzychi and assistant, immediately hurried out to the scene of the accident, as did other citizens, to render what aid might be needed. The dead, dying and slightly injured were brought into town. The Chinaman has since died. John Newton was a native of Pioche county, Kansas.

SONOMA.

Stony Point.—Petaluma *Argus*, Aug. 11: G. W. Hamilton, of Stony Point, informs us that crops in his neighborhood are good this year. The region known as Stony Point covers quite a large extent of territory, and is one of the most productive districts in Sonoma county. In the order of their importance, the following are its principal productions: Wheat and other small grain, hay, potatoes, fruit, butter, corn and vegetables. This year more hay was cut than usual, and less grain harvested. The surplus hay is shipped to Petaluma, Santa Rosa and the lumber districts in the vicinity of Guerneville, and nearly all the grain to this city. One of the best wagon roads in the State connects Stony Point with Petaluma, the distance being eight miles.

Hay.—Hay in great quantities is arriving in town daily. All the storehouses are nearly full, and large shipments are made to San Francisco every few days.

SUTTER.

Hugh Jones' Thresher.—*Banner*, Aug. 10: Sometime ago we mentioned the fact that Hugh Jones was building a new separator on an improved plan. Saturday evening we had an opportunity to see this machine, it having been brought to town for the purpose of having a tire set. For several hours after its arrival it was the center of attraction to a large crowd of farmers and experienced threshers, who examined it all over critically and gave it as their opinion that it was the most complete thing of the kind they had ever seen. We asked one individual who appeared to be referred to as a judge in such matters, if he thought it could do any better work than other machines. "You bet," was his answer, "she has an awful appetite for straw and can clean all that can be forced through her; 3,000 bushels a day is her average work in fair grain." There are several points about this machine that commend it to the farmere as being superior to nearly all others in use: It is run by light gearing attached to a four-foot band wheel on the side of the machine, from which the cylinder and separator are run by different belts. This is claimed to be a great advantage, for if anything checks the cylinder the motion of the separator is not interfered with; whereas with other machines everything being driven from the cylinder, if fed too heavy or too light, it would either clog the separator or run it so fast as to blow the wheat over in the chaff. Mr. Jones has two cylinder pulleys, one six and the other seven inches in diameter, which he uses for high or low motion, according to the nature of the straw, without changing the speed of his engine or the motion of the separator. This engine, we believe, is the first straw-burner that has been used in the country, and from all that we can learn from those who have seen it work, it gives good satisfaction and accomplishes all that is claimed for it. We also understand that Hugh has provided a couple of two-wheeled rigs for his men to ride on who drive the derrick-fork horses. The skill and enterprise displayed by Mr. Jones in perfecting a machine so important to the farming interest is deserving of the warmest commendations.

TULARE.

Mussel Slough.—Cor. Fresno *Expositor*, Aug. 9: The sound of the header has ceased in this section of the country. Mowers are occasionally heard, but only in alfalfa fields. But the hum of the thresher is heard in every direction, indicating that the golden grain is fast being made ready for market. This is an irrigated farming country, consequently it differs somewhat from other farming portions of this State in its productions—not being confined wholly to grain raising. In this (Mussel Slough) country it is seedtime and harvest nearly the year round. Grain is sown from November till April, and planting time from February till the middle of July. It is frequently the case that after a crop of grain is taken from the ground, beans, corn, broom-corn or potatoes are planted on the same land. Whether such constant cropping—two crops a year— will in the end pay even a poor man, I think quite doubtful. Grain is generally good, but in some fields of wheat the grain is a little shrunken, probably caused by the extreme hot weather in June. The barley crop is most excellent, turning out from 40 to 60 bushels to the acre. Perhaps 1,000 acres of broom corn have been planted in this section. Some is being harvested that is very fine, but most of it is of late planting, and the result in the future. This is considered by broom-makers the best part of the State for broom-corn, consequently the most of the crop here is contracted to the manufacturers at San Francisco and San Jose. In fact, all summer crops at the present writing have a most encouraging look, and will no doubt amply reward the husbandman.

Montana.

Agriculture in Bitter Root Valley.—*Northwest*, Aug. 4: The industry of this farming community, as crops now look, will undoubtedly be richly repaid by a far more bountiful harvest than ever heretofore known, from the fact that rains have been frequent and abundant, producing more luxuriant growth than could have been done by irrigation. Tho only fear is that the extreme dampness of the soil will retard ripening before frost. Thus far we have escaped the ravages of that formidable foe, the grasshopper. However, they are not content to bid adieu to the country without giving us an occular demonstration of their invincible hosts. During three days last week the air was literally filled, reminding us of a heavy snow-storm, minus descent to earth. The wind was blowing briekly from the northwest, and they were borne rapidly forward to parts unknown. With grateful hearts we bid them (we hope) a long and last farewell. Last Friday, the 14th, we were visited by a severe storm of hail, which lasted one hour. The hailstonee measured 3¼ inches. Not much damage was done with us, but Corvallis suffered materially. Two hogs were killed and a great number of chickens; windows were broken, and garden vines, I am told, are a total wreck. The crops, I hear, are not greatly injured. The dairy business is being carried on extensively here this summer. Some are milking 40 and 50 cows, others 20 and 30. Bitter Root will produce a vast amount of butter and cheese this season, unquestionably at very low figures. The people are generally contented and happy, knowing that they occupy the richest and most fertile portion of the Territory.

Grasses.—Butte *Miner*, Aug. 3: The grasses of Montana are a part of her wealth. This has been an excellent season and there has been a heavy growth. In this vicinity four machines are constantly employed cutting the upland bunch-grass for hay. We believe very much of the uplands of Montana could be irrigated so as to produce a large crop of hay of superior quality. The bunch-grass hay answers the purpose of hay and grain, and experienced stock men inform us that they prefer the bunch-grass hay alone in preference to common slough-grass and grain.



Woods of Oregon.

In the last issue of the New York *Independent*, Joaquin Miller begins a poem entitled "Woods of Oregon." We select a few verses of fresh descriptive writing:

Below a leafy arch as grand
As ever bended heaven spanned
Tall trunks like mighty columns stand.
A shadowed stream rolls dark and slow,
Some men move noiseless to and fro
As in some vast cathedral when
The calm of prayer comes to men.

One trackless wood; one snowy cone
That lifts from out the wood alone.
A wild, wide river, dark and deep,
A ship against the shore asleep,
A lumber mill with muffled sound,
Some skin-clad settlers shuffling round
With listless will and dull intent,
A blunt black captain in command,
Who struts about with gun in hand,
The tyrant of the settlement.

An Indian woman creeps, a crone,
Remote around the camp alone,
The relic of her perished race,
That wears rich, rudely-fashioned bands
Of gold above her bony hands,
While hissing curses on the place.

A comely boy, curl-haired and tall;
That stands as if a second Saul,
A sort of David, born to keep
His flocks and watch while others sleep,
And pipes a reed and dream alone,
Below the lifted snowy cone.

A maiden by the river's brink,
As fair to see as you can think.
As tall as tules at her feet,
As fair as flowers in her hair,
As sweet as flowers oversweet,
As fair as wood-nymph, more than fair,
That woodman's daughter leaning there.

Aye, she was fair and very fair.
The rippled rivers of her hair
That ran in wondrous waves somehow
Flowed down, divided by her brow,
And flooded all her breast of snow
In its uncommon fold and flow.

The one fair woman of the wood,
The birds sang sweeter for her face.
Her lifted eyes were like a grace
To woodmen of that solitude.
A red bird built beneath her roof;
The squirrels crossed her cabin sill,
And frisking came and went at will;
A hermit spider wove his web
And up against the roof did spin
A net to catch mosquitos in.

The silly elk, the spotted fawn,
And all dumb beasts that came to drink,
That, stealthy, stole upon the brink
In that weird white that lies between
The noisy night and drowsy dawn,
On seeing her familiar face,
Would fearless stop and stand in place.

She was so kind the beasts of night
Gave her the road as if her right.
The panther, crouching overhead,
In sheen of moss, would hear her tread,
And bend his eyes, but never stir,
Lest he by chance might frighten her.

A small black bear, one winter morn,
Came blinking in the broken sun
Along the stubble-field of corn,
And, stumbling as a babe had done,
And bumping on its nose and all,
The white as it would faint and fall.

She bade the mastiff back; she laid
A soft hand on the woodman's arm.
It was enough. They left the maid
To do her will. She stooped, she bore
From out the bleak and frosted place,
Against her bosom, brave and warm,
The baby to her cabin-door.
She wound it in her flow of hair;
She bended down her baby face,
As if a baby nestled there.

"My poor black baby, with a breast
As white as snow and with the sign
Of cross and star, lie still and rest.
Are you, too, motherless, like me,
And all alone upon the sea
Of life, to perish or to pine
And die for touch of sympathy?

"My poor black baby, why, your hair
Is black and glossy as mine own.
What man has made you motherless?
What hunter brought you this despair,
And left you in your sore distress
To lall in some dark place and moan
Your little life away alone?

"Was it according to God's plan
That man should scourge with fiery rod
The furthest plain and forest through?
Poor brutes! I marvel much that God
Did give dominion over you
To merciless and cruel man,
Instead of some strong beast to be
More just and merciful than he."

WANTED TO SLEEP WITH HIS MOTHER.—A little four-year-old boy, Willie by name, enjoyed the luxury of sleeping with his mother during a short illness. After his entire recovery his mother told him that he was to go again to his own little room. He made no objections, but after being undressed said to his mother, "Mother, I want to say my prayers alone to-night." "But why do you want to, Willie?" "Because I want to, mamma." Muther humored him, and standing outside the door, heard Willie pray as follows: "O Dod, make Willie sick; make him *real* sick; make him wommit; but don't *dead* him."

Cosmopolitan Crowds at the Centennial.

EDITORS PRESS:—What a cosmopolitan crowd one meets here at the gates as he enters, on the grounds as he promenades, in the halls as he gazes at all that pertains to life or to luxury. As you squeeze through the crowd at the portals, mayhaps you jostle against the vivacious Mousieur, or the stout, stolid Mynheer, or the blarsted Hinglisher; while, perhaps in front of you goes the wearer of the turban of Turkey, the cap of Scotland, the "plug" of America, or the tall alpine hat of Switzerland.

In the halls you meet characters of all the world, from the sun of Rome to the winter of Russia; interesting and uninteresting, youthful and old, rich an poor, pretty and homely; some with the tan of sunny Franco still upon their faces, others with the sallowness of Thibet reflected in their countenance. Here you meet the hearty, hale old man, grey haired and wrinkled, who seems froo his happy, beaming countenance, to thank God that He has lengthened out his days to see this grand work of America. He is deeply interested in all improvements, and if he can get a listener, he loves to staud and tell how it used to be done in his hoyhood. He will admit that these wonderful new-faugled machines will do the work faster than the old folks could, "but sir, I tell you, I never have seed such broadcloth as my old mother used to make, no use talkiug, I have never seed anything like it for wear." Perhaps by the side of the o'd man will toddle a youug fair-haired grandson, a later production of Americau soil. He keeps up an incessant prattle as he runs along, and often puzzles his old grandfather with his curious questions. The little fellow sees everything, and with the persistence of only an American youth, wants to know the why and wherefore of all.

Here we often see the flashingly iashionable young lady, whose father evidently has made a strike in "ile" or in "stocks." The other day we stood hy while two of these gushiug damsels leaned over a case of jewels and wished they bad "them ducky, dear diamonds." She is one of those kinds, whom you are sure if she has beeu abroad and can only get you pinned in a corner, will discourse for half an hour abont when "we was to Europe." She will tell you all about "Paree," and "Badiu Badain," and there end with a lengthy panegyric on some German or Italian Count, who she leads you to believe came very near proposing to her. But in spite of this specimeu we have mauy of the true American ladies, and right pretty they do look, heaven bless 'em! They dress with taste, see all that is to be seen, are independent, courteous and kiud.

The anxious mammas are here in full force, surrounded with their full share of Young Americas and Youug Americanesses. They always seem disappointed at uot getting their children iu at half price. The are the most vigilant persons on the face of the globe; they cast one eye on the exhibits and distribute the other equally among five or six restless young harbariaus.

"Oh, isn't this beautiful! Look at the work—uow Hatty! How cunuing now Katy! I wonder—Johnny your brother will get lost—who was the artisan. Where's Charlie? Come here, sir! I wish I had this—Hatty, what are you doing? for the parlor!" and so the poor mothers go on. They soon get tired, sieze upon some bench and down they sit with all their little brood scattered around them.

However, we often encounter a more model family; it geuerally consists of three individuals, papa, mamma and the baby, and in such a case papa invariably, be it said to his honor, carries the youngest member.

The would be gay Lothario rather abounds here. A dark curly wig is over his bald head; light colored glasses hide his eyes; a flower adorns his huttonhole; he swings his cane as gaily as the fop of 20; and his clean shaven face always glistens from the morning's razor: were it not so I am afraid that a short, stiff, shinuing stuhble would cover that classically cut chin. Of course we have our share of the irrepressible fop. He stares at the pretty girls and glances at the exhibits; he lounges about and invites inspection; mayhaps he is wheeled around in one of the chairs in which he lolls as if he was absolntely, by gad! perishing of *ennui*.

The nuuber of nationalities here often occasions some queer groupings. I have seen the American goatee engaged in au earnest conversation with the side whiskers of England, and the imperial of France, while near by stood the tweed of Scotland attempting to converse with the linen of Canton. But the other day as I was entering the gates afar off, I caught sight of a tall person arrayed in the gayest scarlet, trimmed in with brightest gold. Who could it be? Visions of the old time sultans of golden Bagdad rushed across my mind. He wore an immense turban. He was distributing something to a crowd that was surging around him. What was it? Snltans are very liberal. Rubies perhaps; medals of his highness, de—iamonds. Auxiously I waited. He came nearer and nearer, gleaming brighter and brighter. But, Mr. Editor, please imagine my feelings when I received my taucied ruby to find it was only 'an advertising card, "Big Boots at Browns," or some such thing. And, oh the deceit of man! Mr. Editor, think of my chagrin, just as I had reluctantly determined to be his prime minister, if he wanted one, when I discovered that my old time sultan's "fust pace of meat was a pertatey."

F. H. W.

[Editorial Correspondence.]

A Scene at the Centennial.

It was my pleasure, a few days since, to escort a lady on her first visit to the grounds. After passing the turn-style at the Elm avenue entrance, and stopping a moment to take a brief glauce at the numerous buildings, fountains, avenues and walks that there meet the beholder, I led her through the main or west entrance to the main building, up to a position between China and Norway, as shown in the diagram, whe she suddeuly halted and for a moment stood speechless. I watched her eyes as they wandered up and down the vista upon either side, and endeavored to take in the vast, varied and gorgeous display before her—a world in miniature—until she finally clasped her hands together in astonishment, looked away into the dim distance of the closiug perspective, and involuntarily commenced to repeat the openiug lines of the eloquent tribute which Norman Gunderson, a Swedish poet, has recently penned to our great national anniversary. She had reached, I believe, the end of the second stanza before her enthusiasm was sufficiently subdued to realize that she was in a crowd where all could not, as she did, take in at a glance, the vastness, reality and significance of the scene upou which she was gazing. The lines are so pertinent and eloquent, that I cannot refrain from reproducing not only those which found irresistable utterance from my friend's lips, hut several additioual ones also from the same poem:

"The old world brings her treasures here!
To lay before the new world's shrine.
The tropic's offering sincere—
Her wealth of olive and of wine—
Is laid before our feet to-day.
Oh! blessed omen—happy sight!
Where shown hut dimly Freedom's ray;
The world, transfigured, lies in light!

"Here China lays her treasure down,
Japan and India appear,
Bearing their offerings to crown
The fullness of your hundred years!
The diamond from Brazilia's mine
Gleams here by California's gold;
And silver from the long inclines,
Where Colorado's wealth is told.

* * * * * * * *

"A hundred years of Freedom's reign;
A hundred years of war and peace;
A golden Century again
Burgeons and blossoms with increase.
Swift as the wind your couriers fly
Across the land from sea to sea.
In northern air and tropic sky
Stream out the banners of the free!e

"Your sons have brought the lightning down,
And harnessed it to do their will;
Your forts in every harbor frown;
Your thunder sleeps on every hill!
Your power is felt on land and sea;
Your commerce sweeps across the tide.
Millions of the brave and free
Nestle beneath its shelter wide!"

W. B. E.

Does a Bird Die a Natural Death?

It is the opinion of some naturalists that birds uever die what is called a natural death, but come to their end by some murderous or accidental means; yet I have found sparrows and vireos in the fields and woods dead or dying, that bore no marks of violence; and I remember that once in my childhood a redbird fell down in the yard exhausted and was brought in by the girl; its bright scarlet image is indelibly stamped upon my recollection. It is not known that birds have any distempers like the domestic fowls, but I saw a social sparrow one day quite disabled hy some curious malady, that snggested a disease that sometimes attacks poultry; one eye was nearly put out by a scrofulous-looking sore, and on the last joint of one wiug there was a large tumerous or fungous growth that crippled the bird completely. On another occasion I picked up one that appeared well but could not keep its center of gravity when in flight, and so fell to the ground.

Oue reason why dead birds and animals are so rarely found is, that on the approach of death their instinct prompts them to creep away in some hole or under some cover, where they would be least liable to fall a prey to their natural enemies. It is donbtful if any of the game birds, like the pigeon and grouse, ever die of old age, or the semi-game birds, like the boholiuk, or the "century-living" crow; but in what other form can death overtake the humming hird, or even the swift and the harnswallow? Such are true birds of the air; they may be occasionally lost at sea during their migrations, hut, so far as I know, they are not preyed upon hy auy other species.—*John Burroughs in Scribner's.*

DON'T think that yards aud yards of ribbons, ruffles and laces will add one particle to your real value. Don't make a walking milliner's shop, or a jeweller's store of yourselves; covering all that is of real merit within you with that which will attract only the shallow brained.

THE introduction of female clerks into the good offices of the London and North-western railway, at Birmingham, has proved so successful that the directors have been induced to try the experiment in other large centers of traffic.

"SAY, COUNTRY, have you got any hay-seed in your hair?" cried a city chap, who was walking with his companion down Kearny street, just behind a farmer. "Waal, I guess there's, lots of it there, seiu' how the calves run arter me," was the satisfactory auswer.

Going out of Town.

[Written for the PRESS by ELISA E. ANTHONY.]

If you wish to be considered fashionable, of course you go out of town during the heated term; when the shady side of the street and iced drinks are in demand, and every dog no matter how infinitesimal, is an object of suspicion and terror, for fear he is mad or going to be.

You will not choose some quiet country retreat where your childreu, dressed plainly, can romp all day, ride the family horse, make mud pies and sail miniatnre boats and thereby grow plump and rosy; where you can retire early, rise early, live on the choicest of nature's offerings, and gain back your health and bloom; where your "liege lord" can run down quite often to see you, and away from scenes of frivolity, you both can renew your days of courtship.

Oh, no! Why! What would Mrs. Grundy think! So the gay watering place is your choice, where you can flirt to your heart's content, now with this young man, who parts his name as well as his hair in the middle, now with that gentlemau with an unpronounceable name, hut with *such* lovely whiskers, and who can waltz so divinely.

Your children are dressed to death or nearly so, tied back so that they can hardly sit down, and are taken to the beach every day, where they are paraded up and down until they are glad to sit still, when they are told that they "can sit down, if they will be careful and not rumple their clothes," and they gaze with envy on more fortunate children, who are making castles in the sand and rolling and romping in a manner delightful to behold.

But your children are not made of the common dust; they are composed of the Simon pure gold dust, sifted through besides. And if they should play in the sand it would make their hands rough and course, and they must not venture out without their parasol, for fear they might get freckled, and then how would they look?

Your husband runs down every Saturday and remains until Monday, and when you see him depart for his business, you breathe a sigh of relief, for you were afraid Don Whiskerando would commit himself while he was there, and now you are at liberty to flirt for another week. You have a room so small that you can scarcely turn around after your immense Saratogaa are in it, and the view out of a tiny window is into a stable yard, quite different from your large rooms with all the modern conveniences at home, but what matters these discomforts if you can say that you have been to a summer resort?

When you return home completely tired out, complaining of the extortionate prices and miserable accommodations, you still can triumphantly say that you have been out of town and that amply repays you for your discomforts.

San Francisco, August, 1876.

True Liberty.

There is not a soul that does not need that freedom from hondage. All are slaves to sin and ueed their freedom. "But what does liberty mean?" It is perfect obedience to perfect law. Men make many blunders in construing its true meaning. Some think it means to do just as you please, but this is a mistake. The savage nation who have lost thief are in great confusion. Finally the one who is the strongest gains power over the rest and then does just as he pleases. In 1793 the city of Paris was covered with the red, white and blue, and upon the cap of liberty was written equality, then followed a scene of bloodshed, ruin and anarchy. This is the wrong definition of liberty. The same applies to man as it does to nations. There must be law, good and perfect, and perfectly executed. Man should uphold them and keep them with perfect willingness, then he will enjoy that liberty which is pleasing to him. Individuals make the same mistake in regard to the liberty of the soul as they do of the land. The first step of Christ is to free us from the curse of the law, the second is to free us from the bondage of the law, and the third is to free us from the hondage of sin.

God says love your enemies, do not covet, nor steal, but the human heart does not feel inclined to do it. It is desperately wicked, and while in the bondage of sin it finds more pleasure in breaking these commands than in serving God. But a new heart wants to do the will of God, and does it in pure love. The man who walks aloug the street and sees gold and silver or bonds in the window wants them, and if he was sure no one was watching him, would go and take possession, hut for the fear of the law of the land he desists, hut in his heart he has committed just as great a sin as though he had stolen the property. Another who loves the law and his God would not steal if he had all the chance in the world, because he has the love of the law in his heart. Turn your thoughts to liberty of the soul. Love the law of God. Stand fast in the liberty where Christ hy his death ou the cross made you free. Cast yourself on him and become possessors of freedom and liberty.—*Rev. E. C. Ray.*

AN OLD CANARY.—A canary bird, belonging to a lady in Providence, died a few days ago at the age of 22 years and nine months. It was blind, bald-headed, and a cripple, hut it fed itself, and it sang cheerily until within a year.

Reading.

When you are tired of the world and work, it is a relief to take a pleasant book, sit down in an easy chair and enjoy yourself. In half an hour you will rise refreshed and ready to return to life's hard battles. The history of a nation, or the life of some great man or good woman will be of most service to you, if you have not injured your thinking capacities by too much novel reading. If you have done so, the remedy that will most surely restore your mind and reasoning powers, is a course of hard study. When you have decided on a course of study to pursue, do not leave it, for the by-paths of literature are dark and unimproving. The way you choose may be dry and arid as a desert, but there are oases covered with fruit and palm trees and watered by wells of truth, which will repay you for any trouble you have had in finding them.

Reading is a necessity of civilization, just as much as food or clothing. Go into a country or even a community, where reading matter is scarce, and you will find a lack of knowledge and courtesy that will surprise you. Reading gives us new and extended ideas and better aims in life. When we read we should strive to understand the views and intentions of the writer. We should not say, "I cannot dig out the idea; it is too deep for me," but take our shovel and carry away the refuse words with which the author has covered his best thoughts. Always read with as full an understanding of the subject as possible. Study carefully the meaning of the words and phrases before you search out the hidden thoughts, and remember them for your own good, if they are good.

We read to increase our knowledge of persons or things and enable us to write or speak understandingly on any subject we undertake. When we read we should think of the subject of the treatise, and the reason for its being handled in the way it is; also of what we should say on the subject, if we had the chance. Reading aloud has become quite an art, and much attention is paid to its proper performance in our public schools. It is absolutely necessary for a good scholar to be able to read well. The best place to read is in a library or other quiet spot where one can think as he goes on. But here let me whisper a word of caution to you. Do not read too much or too late at night. More eyes are spoiled by injudicious reading than by any other means.—*Ida Seymour in Western Rural.*

Home Industry.—The story is told of an American in Paris, who, being about to leave for New York, bought a half-dozen peculiar looking pencil cases, at 95 cents each, for presents to friends at home. In Regent street, London, he saw some more at only 70 cents each, and bought another half dozen, thinking that Paris pencils at that price were a bargain. In Liverpool he purchased another half dozen of these articles, at 35 cents each. "Singular," he observed, somewhat surprised, "but it seems the further one gets from Paris the cheaper articles of Parisian manufacture become. At this rate I should have done better by waiting until I reached New York. "You are about right, sir," said the shopman, who by this time had his money safe in the till. "You are about right, sir, for them pencils is all made in the States." In the matter of shops and their contents, Paris, London, and New York are well-nigh one, and it requires a sharp eye and ample experience to discover anything in either of them that is not for sale in both the others.—*Trade Journal.*

California's Future Men.—It is in some thing, then, more enduring and more valuable than gold and silver which is to constitute the coming greatness of the land by the Golden Gate. From the mixture of nationality ponred upon her soil there is being developed a type of the coming man, the American of the future—a man in himself concentrating all the better qualities of these various races and sloughing off their defects; in whom shall be fused the wit and oratory of Ireland, the grace and polish of France, the artistic endowment and melody of Italy, the patience and philosophy of Germany, the easy gravity and demeanor of Spain, the indomitable will of Scotland. Underneath all these, and perchance other shades of quality and character gathered from other blood, like keel and ballast for the ship, the sturdy, honesty, balance and backbone of our English ancestry.—*Prentice Mulford in Independent.*

Lovers' Mistakes.—Many a man lives with a woman half a lifetime without suspecting that the wife of his bosom has really forgotten more than he ever knew. Many a carpet-knight, who plumes himself upon his wonderful skill in smashing hearts, is being mentally measured and intellectually turned inside out by the smiling girls whom he thinks he is captivating. Many a veteran beau, who pulls on his gloves to depart, feeling proudly conscious of having made a profound impression upon the susceptible soul of the belle who has endured him for the evening, would be wonderfully enlightened, if not edified, could he hear the sigh of relief which escaped her lips when the clang of the door announced his departure.

Charade.—Mrs. J. B. Boody, Stockton, Cal. is the only person who has sent us a solution to the charade published in the "Young Folks' Column" a few weeks ago. The answer is: Cal—Ca(k)—Re—ous(us)—Calcareous.

Young Folks' Column.

Anagrams.

Some Remarkable Examples of a Peculiar Literary Diversion.

[Written for the "Young Folks' Column" by Comus Canopus.]

As the "Young Folks' Column" of the Rural Press is open for the publication of puzzles from its many juvenile readers, and has contained many of these pleasant diversions, a few remarks regarding a very peculiar puzzle called "anagram," about which quite little is known, will be of interest.

First, then, to better understand what it is, Webster's definition of the name "anagram:" "A transposition of the letters of a name, by which a new word is formed;" which leaves us to conclude that an anagram is a transposition of *all* the letters of a word or sentence, as, for instance, "California" into "Africa lion" and "Galenus" into "angelus"—will be borne in mind—of all the hundreds of different puzzles now current, the anagram is the procursor, as is proven by Pilate's question to Jesus, A. D., 33: "*Quid est veritas?*" (what is truth), which has been anagrammatized into the reply: "*Est vir qui adest*" (the man who is before you.) This, although in Latin, is, in many respects, one of the most remarkable anagrams ever constructed. The question is quite long and the answer formed by its anagrammatization is such a good and fitting one.

The ancient Greeks and Romans were very fond of anagrams, and derived much amusement from the making of them. Like our chess clubs at this day, they used to hold social meetings, at which they entertained one another with their favorite pastimes, one of which was the making of anagrams and reading them aloud to the assemblage. Prizes were frequently offered in competition for which anagrams were made, offered to those present of whom the one who could unravel or convert them to the original word was in turn awarded a prize. Undoubtedly the most remarkable anagram now in circulation is the six transpositions made of the words *Domus Lescinia*, (the Lescinskian house.) The event which called forth this wonderful piece of genius may be related as follows:

When Stanislaus, King of Poland, who reigned about A. D., 1704-1709, then yet a young man and only a short time instated as King, returned with his noble relatives to the house of Lescinski, from an extended journey, he attended the annual examination of the students of the gymnasium of Jablonski, at Lissa.

The event of his reception was enlivened by a tableau by 13 of the students, each of whom carried a shield, on the face of which was in gold one of the letters of the words *Domus Lescinia*. When the curtain rose, the boys stood so that the letters on their shields formed the above words. A ballet followed this, during which the boys intermingled promiscuously, and when they again stood in line the letters on their shields read "*Ades incolumnus*" (unharmed art thou here!) A dance again followed, after which the boys so arranged themselves that the letters on their shields formed the words "*mane sidus loci*" (continue to be a star for the country.) After another interval were formed the words "*Sis columna dei*" (be a pillar of God.) Finally, under a brilliant light, the boys shields formed "*I! scande solium*" (go! and ascend thy throne!) As a matter of curiosity it may be interesting to know that these words, though capable of forming only five independent sentences, can be transposed 1,556,755,200 times.

During the reign of Louis XIII of France, Thomas Billon received a salary of 1200 livirs a year as anagrammatist to the king, and held his position for a long time. His anagrams were marvels of excellency, and many of them are yet circulated. Indeed, half the anagrams in the French language now in circulation originated with him. So great was the number of his anagrams that an almost national interest in them was excited. Billon was thoroughly in love with his pursuit, and at one time the name "Billogram" seemed destined to supercede the proper one, "anagram."

Parker's "Aids to English Composition" tells us that "Sir Isaac Newton was in the habit of concealing his mathematical discoveries by depositing the principles in the form of anagrams; by which he might afterwards claim the merit of the invention without its being stolen by others."

A good story is told of an English lady, Mrs. Eleanor Davies, who imagined herself to be a prophetess and fancied that the spirit of Daniel was in her, because she could transpose her name into "Reveal, O Daniel." Her anagram was faulty, however, lacking an *s* and containing an *l* too much. Her surprise and consternation was great when, one day she saw an anagram of the name "Dame Eleanor Davies" which read "never so mad a ladie."

Here are a few examples of anagrams. They are excellent, because the anagrams form an answer as it were to the original word:

Astronomers, moon starers; telegraphs, great helps; gallantries, all great sins; encyclopedia, a nice cold pye; lawyers, sly ware; misanthrope, spare him not; old England, golden land; presbyterian, best in prayor; punishment, nine thumps; penitentiary, nay, I ropent it; radical reform, rare mad frolic; revolution, to love ruin; James Stuart, a just master.

Good Health.

Personal Care of Health.

A manual of health issued by the "Society for Promoting Christian Knowledge," (an English organization), contains many very valuable hints, some of which are given herewith to our readers. This volume is the last literary labor of the lamented Dr. Parkes, and is one of the most useful of the many useful books the society alluded to has yet published.

Dr. Parkes regards the diseases so widely spread among us to a great extent self inflicted, and even those which we are powerless to prevent often controllable by man. By legislative enactment very much has been done in providing pure air, pure water, and food free from deleterious adulterations, to ameliorate the conditions of city and village residents. But legislation cannot deal with those conditions which belong to the individual. Amelioration here can be the result only of an intelligent understanding of the laws of life and health. The frightful difference between the infant mortality of the rich and the poor is chargeable chiefly to the ignorance and carelessness of the latter. If by any means the masses can be taught the simple and almost self-evident laws of health, the rate of mortality among children would decline and approximate to the rate which is found in healthy districts.

The critical period in the life of men and women Dr. Parkes places between the ages of 14 and 21. During that period not only is the mental character formed and developed, but also the physical constitution on which so much of the after life depends. Strength and activity of body may be cultivated or neglected, while the mental character, though it may to a certain extent be influenced by the training of earlier years, is mainly developed and determined by personal action. During this period eight hours, and preferably nine of the 24 should be devoted to sleep. Of the remainder, three to four might be occupied with meals and rest during the day, and the others should be given up to exercise, equally divided between mental and physical, but in such a manner that the two kinds of exercise are alternated. Two hours of real study is quite sufficient at a time for the growing brain. Young women ought to be physically trained as carefully as men. They ought to have strong, firm muscles, and be well developed. Five or six hours of daily exercise, involving real bodily labor, is not too much for even "young ladies." Much of the exercise which is taken by young people is of too violent a character to be of any permanent benefit. What is wanted is a steady, progressive cultivation of the muscles, such as is attained by walking, running, rowing, swimming, when those exercises are carried on quietly, and without the strain which too often occurs in their daily practice. Young people should never feel that they have a stomach; they should eat when hungry till hunger is gone, and should feel neither weight nor uneasiness, nor sleepiness after meals. Nitrogen enters into the construction of every nerve, every muscle of the body. Both the animal and vegetable kingdoms supply nitrogenous foods which man can use, and with any of which he can attain his highest bodily and mental development. Where pecuniary circumstances permit it is best to let meat supply a considerable portion of the nitrogen required; but the laboring man, by ringing the changes on oatmeal, maize, peas, beans, rice, and macaroni, to which may be added occasionally cheese and bacon, may bring up his children as well nourished as those of the richest people at a small cost. As to drink, young men and women are strongly advised to abstain from alcohol, for it is certain that it does harm to the growing body; and with regard to persons of adult years, the uncertainty which prevails as to the value of alcohol turns the scale in favor of total abstinence instead of moderate drinking. Dr. Parkes is decidedly in favor of early marriages—seeing, as he has, that much ill-health among both sexes would have been prevented by the occupations and even by the cares of married life.

Bodily Weight and Nutrition.—Professor C. Voit in a lecture at the Public Health Congress held at Munich, remarked: "The weight of the body has often been assumed as an infallible proof of the maintenance of the condition of the body, or of a deposition of tissue, and the food which keeps up a man's weight has been regarded as on that account satisfactorily nutritious. But the weight of the body is no criterion of the value of the food taken, because while the weight remains constant, or even increases, water may increase in the tissues and albumen and fat diminish; or there may be an increase of weight and deposition of fat while there is also at the same time a diminution of the albumen of the body. Badly nourished people are usually not lighter than others, but their bodies contain more water and less albumen and fat than those who are well nourished. Every cattle feeder knows that cattle which are being fattened do not at first increase in weight proportionately to the food they take. And yet people commonly regard weight as of great importance in the case of men, though a butcher will not buy a carcass on the merits of its weight alone. He must know the quality of the meat. The subjective feeling of satisfaction is equally deceptive. The Irish peasant who consumes 10 pounds of potatoes in the day feels quite satisfied, and yet is badly nourished."

Domestic Economy.

Boiling and Roasting.

The British department of science and art have been listening to some lectures on cookery by J. C. Buckmaster. We extract the following paragraphs:

Boiling.

In boiling a piece of meat the vessel should be large enough to allow the meat to be entirely surrounded and covered with water, and sufficient to last the whole time of cooking. If the lid be kept on, the meat will be cooked in less time and with less fuel. Clean, soft water, when it can be obtained, should always be used, and filtered if necessary. If you wish to secure all the juices and flavor of the meat it should be put into boiling water, and then stood aside to simmer at a temperature not exceeding 190 degrees. Quick boiling will harden the tenderest piece of meat. The scum, which is chiefly coagulated blood and the dirt of the saucepan, should be carefully removed. The addition of a little cold water four or five times, in quantities of not more than a gill, will assist the raising of the scum. The time necessary is about a quarter of an hour to 20 minutes for a pound. Fresh killed meat requires rather longer time than meat which has been hung a few days. A piece of string or tape, tied around the meat with a loop, will enable you to remove it from the saucepan without sticking the fork into it, which is always to be avoided, because the juices and flavor then go into liquor.

Stewing is a gradual simmering. It may be done in a saucepan over the fire, or in a stone jar which will stand the fire, with a lid fitting steam-tight. The common red jar is not to be recommended; it does not stand the heat, and the glaze, which is a composition of lead, often gives way in presence of salt. Stone jars are preferable to metal saucepans; they can be easily cleaned and they retain the heat better. For stewing, select clean meat, free from blood. The quantity of water should be about a quart to a pound of meat; but this liquor will be very rich, and it can easily be reduced, if necessary, with warm water. Add about a tablespoonful of salt to a quart of water; I think the salt is best added towards the end of the cooking as the tendency is to harden the meat. Peas boiled with salt pork will remain hard throughout the cooking. Bring the water gradually to the boil, remove all the scum, and let the contents simmer till the flavor of the meat is absorbed in the liquor. Remove all the fat, which can be eaten with bread, or used for puddings or frying.

Roasting.

I believe I am regarded as a sort of heretic on the question of roasting meat. My opinion is that the essential condition of good roasting, is constant basting, and this the meat is not likely to have when shut up in an iron box; and what is not easily done is easily neglected. Make up your fire, not by shooting on a scuttle of coal, but laying on the coal with your hands, using a old glove. Arrange the lumps of coal so that the air passes freely into the fire. By this arrangement you may avoid stirring the fire, which should be done as little as possible. Just before putting down the meat (which may be suspended by a peice of worsted, if you have no other arrangements) clear up the fireplace, and throw to the back of the fire all the cinders and a little small coal slightly wetted. This will prevent waste of fuel, and throw the heat where you want it—in the front. If you have a meat screen, place if before the fire, so as to get moderately heated before the meat is hung to the fire. Heat reflected from bright metallic surfaces never dries or scorches the meat. Arrange the dripping-pan so that no ashes can fall into it, and just as far below the meat as will enable you to baste it easily. If you have a little dripping or stock, put about a gill into the dripping-pan for basting. Place a newspaper on the floor; this will keep your hearth clean.

There is a right and a wrong way of hanging a piece of meat to roast. The thickest part should hang a trifle below the center of the fire; and if this can be best done by hanging the shank of a leg of mutton downwards, do so. The time required for roasting will be modified by circumstances; and different kinds or qualities of meat require somewhat different treatment. The time usually allowed is from 15 to 20 minutes for a pound. Before removing the meat from the fire, press the lean part with the thumb; if the meat yield easily, or if the meat steam to the fire, it is done. Never sprinkle salt over the meat till about a quarter of an hour before it is ready. Pour away the dripping before using the salt, because fat used for puddings and pies and frying is better without salt. You may dredge a little flour over it, and every part should be of a nice pale brown; if any part be scorched or blackened you have failed in your cooking. Pour off the dripping, leaving in the pan the pure gravy free from fat. Have a gill or half a pint of the stock or broth, or water, ready; pour it into the dripping-pan, rinse it round, strain it into the dish, and send it to table as quickly as possible. Some cooks tie a piece of dripping or butter paper on the meat.

Cookies.—One cup of butter; two of sugar; half a cup of milk; four eggs; two teaspoonfuls of baking-powder; half a nutmeg. As little flour as possible, and roll out.

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Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, August 19, 1876.

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The Week.

The week has brought news of considerable interest over the wires. Congress has adjourned and the politicians are now free to devote their whole energies to president making. One of the last deeds of the session was to declare the Sandwich Islanders our brothers and confer upon us the right to swap jackknives with them without asking the customs officer. This measure is a trade experiment and no one can tell exactly the influence it will have upon our State. We expect to point out fully the provisions of the new treaty in our next issue.

On the farm the week brings but a continuance of the work which has been long in progress. The thresher still feeds his machine. The fruit pickers and packers are passing from the early to the late fruits. The grape ripens and the vintage and raisin making are at hand. The days are still busy everywhere.

The Fruit Crop.

Beautiful to the eye, delicious to the taste and ponderous withal, is the California fruit crop of 1876. Heaping are the baskets, pressed are the boxes which come to the city stores; heavy are the loads which come to the drying and canning establishments of the interior. So far as the deeds of the trees and vines are concerned, the result is magnificent in almost all the fruit growing counties. Nature has smiled upon the orchards, and poetry is almost within reach when we write of this branch of the timely topic, "the fruit crop."

It is unfortunate that one is forced to turn away from the thought of profusion when the fruit crop is considered in all its bearings. It is not pleasant to be compelled to remember that, as conditions are now, when the fruit growers hands are heavy with his crop his pocket is light with the profits which accrue from it. We have looked almost with pity on the huge baskets of golden peaches which have been heaped up on our streets, to think that all the richness they contained would hardly bring more gold than the pickers, the transportation companies and the commission merchants would require for their services, and that the enterprise and skill which called these treasures into existence must be content with mere nominal rewards. We do not mean content, for the fruit growers are not content, and their impatience is promising, because it leads to activity in devising means by which a better state of things may be secured.

No one is really helpless until he thinks himself thus. No one is floored by a problem until he gives up the effort to solve it. The energetic attempts which are being made this year to seize upon the rewards of a wide and systematic Eastern trade in our fruit product, are promising. It cannot be doubted that here lies one great opportunity. We have not been given a climate and soil of peculiar fitness for the growing of peerless fruit that the fruit may fall and rot where it grows. We have not been brought into quick communication with our Eastern countrymen merely for the pleasure of home visits and for tours. Our time of fullness does not come when they lack, merely to give us an opportunity to exult over them. No; these things are our commercial advantages, and success lies in using them in their greatest possibilities.

The Eastern shipment of green fruits has this year disclosed features of greater promise than heretofore. We have from time to time mentioned the facts in the cases as they have occurred, and we shall continue to note all new facts. It is of the general rationale of the enterprise we would speak at this time. General deductions from facts are the soundest scientific statements. It will appear to one who looks at the subject carefully that the shipment of fruit from California to New York is nothing particularly audacious or startling. It is really a very reasonable and regular thing to do when the conditions necessary to it are fully understood. Trade laws assure us that to place a desirable product at a time of scarcity gives the seller an advantage. The laws of science concerning the processes of decay are so well understood that we are in possession of powerful agencies to arrest these processes. The expensive friction of transportation is being smoothed and common carriers are coming to a fairer regard for the rights of people and of trade. We note this as the tendency of the day and as it progresses the matter of distance becomes less in all commercial calculations. All these items we have noted have a direct bearing upon the Eastern trade in our productions.

We cannot find a better illustration of what determination and thorough application of scientific and commercial laws will accomplish toward annihilating distances than in the success which has been attained during the last year in the exportation of fresh meat from this country to the English markets. We print in another column this week some very interesting facts concerning this trade. The idea of John Bull having his roast beef slaughtered in America is as startling a trade proposition as one could imagine. If present indications do not deceive it will not be long before the Christmas beef of the London markets parts with its horns and hoofs away off in Australia. These things show that modern trade shrinks from no difficulty, and better still, that trade, joining hands with science and invention, wins victories which a decade ago were deemed impossible.

While trade is accomplishing these wonders our producers should not disregard the lessons which are taught. While there remains mouths to eat and pockets to pay across the mountains and the plains, it is not the part of enterprise to let our fruit go to waste on the hands of our city merchants or fall to the hogs in the orchard.

Of course we do not regard the Eastern outlet as the one thing needful for the ensuring of profit to our orchardists. There are other enterprises which need promotion. This year will record a good mark in the number of preserving establishments which have sprung up in new localities. We believe this and other branches of the business will repay a wider enlistment of capital and enterprise. We have spoken chiefly of the export of green fruit, because it is in itself a matter of great interest, and one of the promising features of the outlook for our constantly expanding orchards.

Harvest Horrors.

It is with feelings of deep regret that we call attention to three announcements of dread disaster in our harvest fields, which are printed in our "Agricultural Notes" this week. Is it not a sad reflection that industry which maintains life to the world should call for such life sacrifices from its votaries? It is one of the glories of civilization that it places a higher estimate upon the value of human life, and yet we are constantly called to remember that the agencies which civilization has introduced into every day life, are powers for harm which the days of ancient rudeness did not know. The old-time threshing floors were scenes of feasting and rejoicing; the quiet cattle trode their harmless round; the pounding flail broke few heads but those of wheat. We live in other days and deal with other agencies and powers; now and then there occurs a calamity which seems to indicate that men forget and play with danger like children. There is a wholesome lesson to draw, and that is care, vigilant, unceasing care for humanity's sake.

"Muzzle not the ox which treadeth out the corn," was a kind provision for the animal in the early days of agriculture; the powerful, soulless force which we employ to do the work which a billion of oxen could not accomplish between harvest and seedtime, must be most carefully and strongly muzzled, or men must pay the penalty of neglect with their lives. The practice of agriculture to-day requires skill which the days of small things did not demand. We have entered the field of the machinist and have taken his most dangerous agencies to serve us. With the agency we should secure a machinist's knowledge of it. It cannot be denied that in some cases this knowledge is wanting, and thoughtless men brave dangers which the skilled machinist would fly from if he could not remove. Our steam threshing engines are drawn from place to place and set up with as little care, sometimes, as a man would set up a cider press; and yet, every machinist knows that these small motors need greater proportionate care in handling and adjustment than the sturdy giants of the shop and factory, as they are quick to heat, so are they quick to superheat, as they are constantly subject to movement and disarrangement, the consequences of these conditions must be the more carefully looked for and remedied.

It cannot be doubted, that some, at least, of the fatal cases we describe this week, were caused by something which might have been obviated. Even if the cause were thoughtless carelessness, it is hardly excusable, for there are many cases where thoughtlessness is almost a crime. We trust the lessons of these disasters may not not be wholly lost. No man should fire an engine before he is sure that every thing about it is ready for the heat and the pressure, and when the work is well begun there should be no relaxation of care and watchfulness. For humanity's sake do not let homes be robbed and friends bereaved so long as the utmost of care and watchfulness is not bestowed upon the dangers which beset the steam power upon the farm.

HOP PROSPECTS.—The outlook for the hop crop, so far as prices are concerned, is quite fair. Although last year's yield in the New York yards was exceedingly heavy, the supplies have been well worked down and the new crop will not find much obstruction in its course to the markets. This year's yield in New York will not exceed an average and full expectations for good prices are cherished. The crop in England and the continent of Europe has undergone exceedingly unfavorable conditions, and there will probably be a large deficit which American growers must fill. England reports lack of rain in some districts and a parching heat, which is fatal to the growth. Mould has appeared in some localities where it has not been known before. The continental advices, especially from Bavaria, are very bad, and prices show an ascending tendency. On our coast, there will be rewards gained from these unfavorable or average results elsewhere. In Santa Clara county the famous Willow grove plantations promise an unusually large yield. The St. Helena *Star* reports a grower as saying that the crop will be fair, though not as large as last year, and he is firm in the belief that hops will be worth 50 cents a pound. This shows confidence at least. Picking will begin September 1st. The notes from the crop in Washington Territory report a prospect beyond anything experienced before, all yards looking fine for a full harvest. We have no information from the other hop growing districts of this State, but the probability is that a fair showing will be made in the picking boxes.

THERE was a terrific rainstorm in Elgin county, Canada, on Saturday, with immense destruction of roads, bridges and crops. Twelve bridges were swept away in a radius of three miles. The streams were never known so high. Rails, etc., exposed to the weather, were found to contain seven inches of water.

ON FILE.—"Nothing Lost," M. J. H; "Notes from Nevada," K; "Dairying in the Tulea," M. J; "Fruit Culture in Sutter County," M. F. H; "Letter from Lodi," M. M; "On Education," E. C. B; "Centennial Chat," M. M; "That Box," J. E. J.

QUERIES AND REPLIES.

Beatrice or Briggs' May Peach.

EDITORS PRESS:—I think it would be interesting to many of the readers of the RURAL, besides myself, to know which is the earlier and better peach, the Beatrice or Briggs' May peach.—JOHN E. HIGH, San Diego, Cal.

This matter, so far as we know has not been settled yet. The Beatrice has only come into the market in what are known as "sample lots," and its marketable quality and time are not yet established. Those who are introducing the Beatrice are claiming superiority for it, but we are not aware that the position has been demonstrated by actual results. Perhaps another season may define the relations of the two fruits.

Starch Manufacture.

EDITORS PRESS:—Having asked many questions and received valuable information through your columns, I would now take the liberty of asking a few more: 1st. How many starch factories are there in this State? 2d. Is the business considered overdone? 3d. What is the process of manufacturing starch from potatoes, and what would the probable cost of starting a small factory be?—D. E. M., Anaheim, Cal.

1. There is now one factory in operation. It is Johnson's, at San Jose, and is making starch from wheat. Another factory in Oakland, owned by J. Everding & Co., stands idle, the proprietors being interested in Johnson's operations.

2. The starch manufacture is rather uncertain, and, according to information furnished us by Mr. Everding, the trade in the article is so often overstocked by importations from the East, that a factory cannot run regularly, but must shut down from time to time when the supplies are large. He tells us that every once and a while there is brought in a shipload or more of starch which some new Eastern maker desires to introduce, or else it is shipped because the Eastern maker desires to realize the money which he can get as an advance on the consignment. When these large supplies arrive the starch is sold at auction and the market breaks under an over supply. Thus the article is not overdone here in manufacture, but the forced sales of the Eastern starch fill the stores and ruin the sale of the home-made article.

3. The manufacture of potato starch has so far proved a failure in this State. Although several different factories have been equipped and set in motion, they have all suspended and sold their property at a sacrifice. This was the experience of a factory started in Humboldt county, in the midst of a large potato country; of another started in this city, and another started, if we mistake not, in Salinas or vicinity. The San Francisco company started large, and put in some $10,000 or $15,000 of machinery, etc. Mr. Everding informed us that he bought this apparatus after the failure for for $3,000. We doubt a small factory could be started for $5,000, if there were any promise in the business, but this seems to be wanting. Our potatoes have been found thus far unfitted for making starch. The rich soil and favorable climate, perhaps, give them a quick growth. This growth stores up too much water and renders the tubers deficient in what manufacturers call "starch meal." The great bulk of material which has to be worked over to get out the reduced amount of the starch which the potatoes contain necessitates so much labor that the starch costs the manufacturer more than he can get for it. For starch the driest, "mealiest" potatoes are necessary. Mr Everding says there is a fair profit in the manufacture of wheaten starch, if the business is shrewdly managed, but he believes there is nothing in potatoes.

The manufacture of starch from potatoes is very simple, and yet the process is too long for us to describe it in detail in this place. Suffice it to say that to get the starch fecula from the potato it is only necessary to rupture the cellular matter, either by rasping or grating, so as to liberate the starch granules, and then to wash the pulp upon a metallic plate or stage by a stream of water, the washings afterward passing through a sieve. The matter of the potato is left on the sieve, while the starch is carried off in the water and separated from impurities by straining, washing and decantation, etc. Although the process is simple, each step has, of course, to be accomplished by proper machinery.

Rye.

EDITORS PRESS:—Enclosed find one head of grain. Please inform me through your valuable paper the name and nativity of the same.—J. C. KINGSLEY, Bishop Creek, Inyo county, Cal.

We are unable to answer our querist certainly. The grain has different names, one is "Egyptian rye," another is "Arizona rye," indeed the poetic name "gooseneck" is one of its titles. It is a rye. It is too hard for stock feed and it will not flour. Its value lies in its adaptability for the manufacture of maccaroni. Although somewhat different from the "maccaroni wheat," it is good for the same uses. We showed the sample to Prusso & Splivalo, paste manufacturers, 706 Sansome street, S. F., and they say that they will give our querist $1.75 per cental for all he has got of it. The sample is fine, but they say the grain is apt to degenerate in different locations.

NOTICE is hereby given that J. M. McArthur is no longer agent for this paper in Arizona or any other sections. The paper will be sent to all who have subscribed through him to this date, August 15th, 1876.

A Movement in Silk.

Eastern dispatches during the week disclose a shortage in the silk crop of Europe and China, and an advance in prices has occurred. It is estimated that the European yield will fall short this year about 6,000,000 pounds, and the export from North China alone is set down about 20,000 bales, or 2,500,000 pounds less than last year. In Europe the prices are ranging higher, French silks advancing nearly 30 francs per kilo. The Chinese market is also active because of the short supply. The American market was the last to feel the influence of this scarcity of the raw material, the first symptoms being the recent shipment of several hundred bales of China silk to London, and this class of material is even now selling here at fifty cents a pound less than Shanghai rates. The New York *Herald* says: "It is difficult to determine the effect this recent advance in prices may have upon the silk manufacturers here, as it is yet too soon to estimate with certainty, but it is expected that the failure in the raw material will embarass home manufacturers in competing with foreign houses, and thus result in a general advance in prices."

By reason of this foreign advance the silk association of America met in New York city, August 10th, to consider the situation of affairs. It was reluctantly conceded that an average rise of fully fifty per cent. in the price of the raw material, which promises to be permanent, would make necessary a decided advance in the price of manufactured silks. Manufacturers of sewing silk and twist have already advanced their goods 10 per cent., and the further advance of 10 to 15 per cent. is under consideration, and likely to go into effect by August 20th.

These reports will doubtless give new impulse to the silk production of this country and this coast. The market for the raw material seems to invite efforts to supply it, and though the trade in eggs has not proved satisfactory there may be a chance in the silk.

The Hawaiian Treaty.—The bill for carrying into effect the Hawaiian reciprocity treaty, introduced in the House months ago, and reluctantly passed, was finally passed by the Senate on Monday, now goes to the President, and will doubtless receive his approval. The treaty, says the *Call*, in which this coast, and San Francisco in particular, has a greater interest than any other portion of the country, goes into operation immediately. The large portion of the last Hawaiian sugar crop, which has been kept in store in this city and at the islands for several months, awaiting the result, and causing a great derangement to trade, will now be released.

The Centennial at Philadelphia.—No. 11.

We give herewith both a perspective view and a ground plan of the great exhibition building of the farmers, known as

Agricultural Hall,

Last to be completed, but chief in importance to all ie this great hall of the farmers. From the delay in the commencement of the structure, the idea got abroad that the farmers were to be ignored in this grand exposition of our Centennial progress; that they were to be crowded into some corner of one of the other buildings, and not brought prominently forward as a distinctive class. We have no evidence, however, that such was the intent, yet the idea, beyond a doubt, had the effect to detract much from the enthusiasm which, had their eventual position been fully understood at the start, would have animated the farmers of the country. In the early months of preparation, appeals were made for the farmers to help on the grand project; but the reply went back that they were promised no exhibition building, notwithstanding the fact that they represented a majority of the real wealth of the country, and out-numbered in population all other industries combined. There is no doubt but the commissioners did an unwise thing in putting off to the last the construction of an agricultural building; and then in placing it on the most distant portion of the grounds, and finally in so limiting it in size that two or three important annexes have had to be added to accommodate exhibitors in that department. This combination of circumstances has caused this really most important feature of our American international exhibition to appear as a matter of merely third-rate importance; and the wonder is that so creditable an exhibition has been made. The building appears, to one looking at it from a distance, as a mass of green roofs, scarcely distinguishable from the green hills above and beyond.

It consists of a nave 826 feet long by 100 wide, crossed by three transepts, each 472 feet long and 80 and 100 feet wide. The spaces between the transepts and nave and at the corners is roofed over, so that the interior presents an enclosed and covered area, 826 feet long by 465 wide—about 10 acres—with vistas broken at intervals by the tall, timber bases of high pointed arches which rise to the hight of 30 feet or more. Overhead and above these columns the eye rests upon a bewildering network of trusses and beams, where but little ornamentation has been attempted, and where whitewash has been employed instead of paint to cover the nakedness of the work and throw light upon the exhibits below. The principal archway which covers the nave rises to the hight of 75 feet.

What is to be Seen Here.

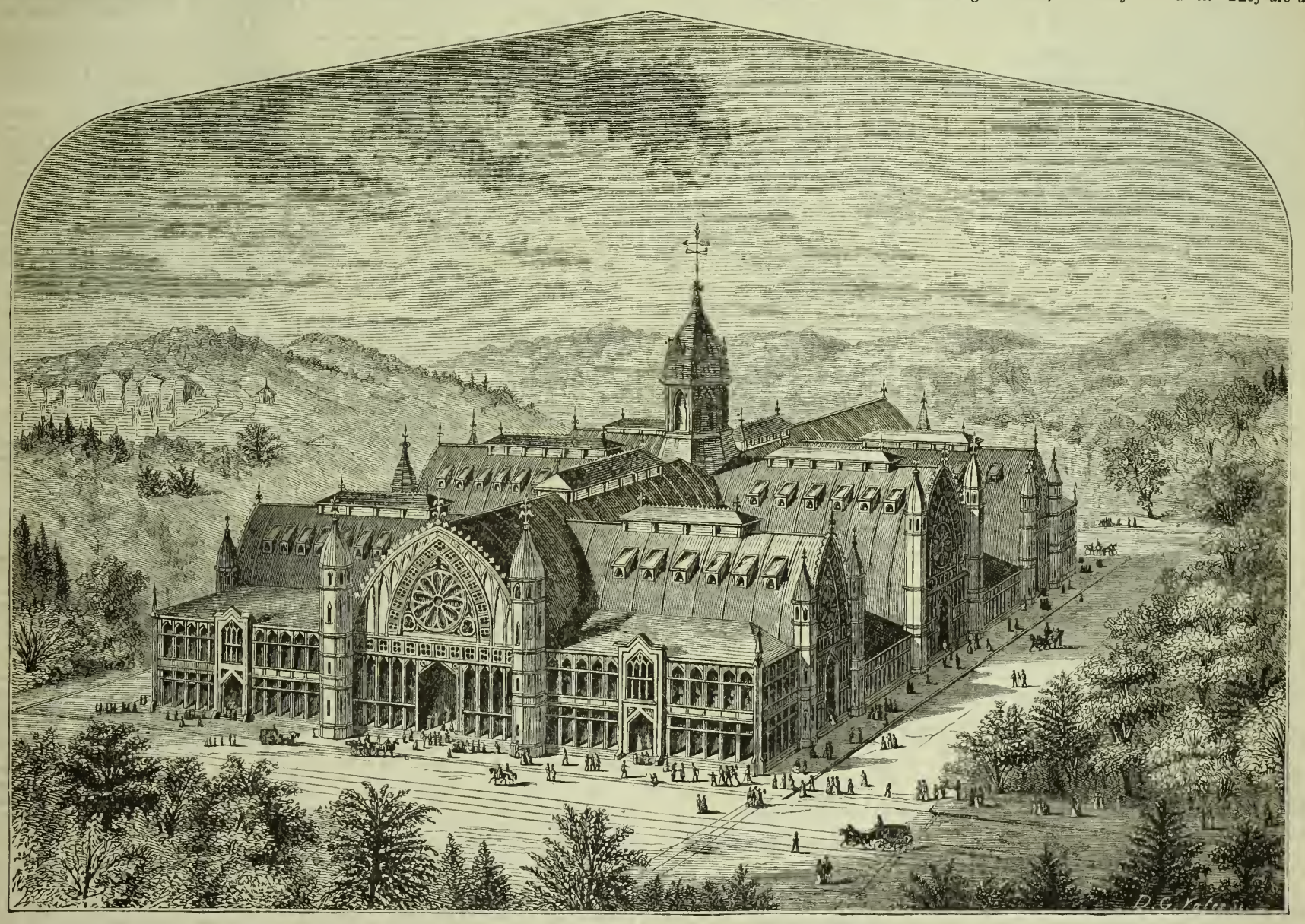
Within this structure are exhibited, or were intended to be exhibited, all the processes of agricultural machinery and the products of the farm, the orchard, the garden and the sea. Such was the intention; but the narrow limits of the building have crowded the great interest of cheese making into one "annex," and the still greater interest of pomology into another. With a proper management and an earlier announcement of intentions in this direction, the farmers of the United States, and those from other lands, would have filled to its utmost capacity, a building equal in area to that of the main building—21 instead of 10 acres.

With all its short-comings, however, this department of the exhibition may be considered one of its most interesting and important features. Never before has such an exhibition of all that pertains to agriculture been made. The United States occupies considerably over one-half of the entire space. Twenty-two foreign nationalities are represented, and the relative proportions of space which they occupy may be readily learned by reference to the accompanying diagram. No American can help feeling proud of his country while passing through the aisles of agricultural hall. No other one country on earth could make such a display of the industries that feed the world as is there shown by our people. With the exception of the Canadian exhibit, two or three grain separators from France and a portable engine or two, neither England nor any other country has sent us an agricultural implement to place in competition with our own. The Canadian exhibition is decidedly creditable, most unexpected and yet most welcome; but it is scarcely in any sense of the word a foreign exhibit. The Canadians have taken all their lessons in agricultural machinery from the United States; nothing from England. They have learned the absurdity of building heavy, and an American in passing from the United States into the Canadian department, which immediately adjoins, would never suspect he had crossed the border were he not reminded of the fact by the labels which accompany the various exhibits.

English Regrets.

The English appear to regret that they have been so negligent in sending over their machinery, and are earnest in their tirades against our system of protection as the cause of such neglect—they could not have sold their machines here if they had brought them. But the presence here, later in the day, of numerous representatives from other countries, where no protective tariff exists, and the fact that such persons have come here to examine and purchase was a possibility that our English cousins had not thought of—and hence their regrets, but too late. It is now becoming evident that our agricultural implement makers will reap a rich harvest from the various countries of South and Central America, India and some other foreign countries. Indeed such a trade has already commenced. Brazil and Paraguay, in particular, are leaving numerous orders, and a gentleman who owns some 12,000 acres in the Argentine Republic, has said that he shall buy largely, and American machines only. These two adjoining and growing countries are entering extensively into improved farming, and it is quite evident that an immense trade in this line must spring up from that quarter in the early future. This is only one of the many evidences of the vast impetus which this exhibition must give to our trade abroad in manufactured articles.

The English, of course, are making great efforts to contest this foreign trade with our manufacturers. They are not at all inclined to yield the palm of excellence, and, failing in this are very anxious to secure a recognition of the superiority of their work in some other direction, when they *do* exhibit. They are also industrious and earnest in proclaiming their superiority in agricultural machinery—particularly in plows, mowing machines and harvesters. They claim that at a recent competitive trial before the Royal agricultural society, at Taunton, in Somersetshire, England, the American mowing machines did not compare favorably with the English; the same claim is set up for threshers. But our Yankee farmers and those from the Southern portion of this continent, as well, seem inclined to take all such representations with many grains of salt, especially in view of the opportunity which has been here presented to repeat and verify such experimental trials. The English general claim is that their work exceeds ours in solidity, strength and durability. Their Canadian brethren, judging from their exhibits, and they are an eminently practical people, and one which still venerate the "mother country," do not appear to see it in that light.



AGRICULTURAL BUILDING AT THE CENTENNIAL EXHIBITION.

French Rejoicing.

The French, who, by the way, are equally earnest advocates for free trade with the English, seem to take a sort of quiet pleasure in this unexpected discomfiture of "perfidious Albion." In reference thereto they say: "Look at her exhibit. See, she is as surely losing her pre-eminence over the industries of the world as her power among the nations, and her hopes for the future are being sadly interfered with by the progress of the 'Great Republic.' The time is fast approaching when her power and prestige will disappear beneath the very ocean

(Continued on Page 132.)

Sheep and Wool.

Shearing Years.

Concerning the causes which go to produce what is called a "shearing year," R. M. Bell writes from the Sacramento valley to the Chicago *Live Stock Journal* as follows:

Shearing years are not to be accounted for on the old trapper's theory of "mild winters make light fur." On this theory, Vermont would shear heavier fleeces than Texas or California, the winter being severe in the one, and being none in the other two regions. This pet theory of trappers and guessers has no foundation in the facts as we find them. In the Sacramento valley we handled a flock of Vermont ewes that clipped, at the two shearings they give sheep there, 17 pounds of wool, unwashed. The condition, as we noticed, promised to be as free from dirt and trash as Illinois wool. These ewes, in Vermont, probably would average 12 pounds, not more. The climate in Sacramento valley is very mild—ice as thick as a trade dollar is a severe freeze. Quite the same condition and results are found in Texas.

Now, we all know we have shearing years. The winters preceding these extreme clips differ. The summers have as much to do in making this difference as the winters. The rains of 1875, that came in May and June, produced grass so abundant and washy as to seriously interfere with the health and condition of sheep in Illinois and Missouri. The wool failed to grow during this time, and the vigor of the sheep was so impaired as to prevent the growth for a time after we began to feed. Those who began to feed early, or, better yet, who continued to counteract with corn the effects of the poor grass all summer and fall, found no such serious falling off in weights of fleece. Three years ago with us was a light shearing year. A drouth set in in June, and for three months we had no grass, and the sheep did poorly for three months, and the fleece for four or five months. If the sheep are well summered, the wintering is easily done, if feed is abundant, and the finest success produced in heavy, good fleeces. Flocks unhoused shear lighter, of course, when the spring rains are abundant and warm—the yolk is the more readily dissolved and washed out. I notice a fine report from certain flockmasters every year, confirming the opinions I have given above. If the conditions of health and thrift are such as to insure a growth of wool every day of the 365, we have a shearing year. A mild winter to a well fed sheep is agreeable, and favors carcass, and so fleece. Good shelter counteracts, or helps to resist, inclement weather. Grain, though stontly opposed by the average stockman—except Short Horn and hog men—should be fed any time in the year when the quantity or quality of grass in the pastures make it necessary, to enable stock to preserve condition and growth. Breeders with small flocks of fancy sheep often force a growth of fleece; and in so producing an enormous weight, weaken the physical force of the sheep, so that there will be a falling off next year, and the previous enormous growth may never be repeated by the same sheep. Good, creditable shearing is that which reports the same sheep, year after year, by number in ear, and is careful to give exact date of growth of each fleece; then you know there is no stubble shearing, nor reporting every other year.

White Skin or Lung Worms in Sheep.

At a recent meeting of the Ohio sheep breeders' convention, Dr. Townshend, of the Agricultural college, spoke of lung worms in sheep. He described these worms, which infest the lungs of sheep in large numbers, as follows:

The females are white and about as thick as No. 8 sewing cotton, four inches in length and full of ova. The males are fewer in number, of a yellow color, and only about four inches long. This was a description of these worms as found in a sheep sent to the college some two years ago, that had died with them. He said he had not had an opportunity to observe these worms at other seasons, and could not fully state their natural history. So far as his examination went, there were no young strongyli in the sheep, but all were matured. What might have been if the examination had been made at other seasons, he could not tell. It is probable that the eggs or young worms are coughed out of the air passages in the spring, and live for a time on grass or in the water to which sheep have access. In ponds and streams in early summer we may find immense numbers of little nematoid worms, evidently in an early stage, for they are sexually imperfect. We find what appears to be the same worms in the larva of several aquatic insects, such as libellula, agrion, ephemera and phrygano. We find the worm in fish and birds, and particularly in meadow larks. Still, how they get out of the sheep and how in again, and where and how the balance of their life is spent, he could not tell, and said that so far as he was concerned this was a missing link. That trouble from them in sheep was always at one season of the year. As a remedy he recommended, first, fumigating in a close room by burning sulphur, which caused violent coughing, and then give turpentine in teaspoonful doses once a day for several days.

Sheep and Sheep Raisers in California.—G. C. McKenzie, writing in the Los Angeles *Herald*, says that there are more or less sheep raised throughout California, from Siskiyou to San Diego, but the largest ranches are to be found in the counties of Merced, Fresno, Kern, Tulare, Los Angeles, Ventura, Santa Barbara, San Luis Obispo and Monterey. The shepherd kings of California are: Flint & Bixby, of San Joaquin, Carr, of Salinas; Hotlister, Cooper and Dibbler, of Santa Barbara; Newhall, of San Luis Obispo; and some others. The shepherd kings of Midian have a modern counterpart in extent of woolly possessions, but here the parallel ends; the only stars which trouble those gentlemen are the stars which figure on United States coin. Iago's advice to Roderigo, "Put money in thy purse," is the motto of the shepherd kings of California. Until lately, the extremely profitable nature of the pursuit has also led to the formation of some joint stock companies, amongst the best known of which are the San Fernando sheep company, San Joaquin wool-growers' association, the Santa Cruz Island and Santa Catalina companies.

Administering Medicine to Sheep.—Place a piece of wood in the mouth so as to hold it fully distended, and confine it there by tying the straps over the back of the head. By holding up the head of the sheep and inserting a horn or tube through a hole in the wood, fluid can be poured into the throat without difficulty.

Useful Information.

On Packing Flowers.

The following practical suggestions on packing flowers for transportation by mail are condensed from an article on the subject in the London *Florist:* Always cut the flowers early, in the cool of the morning, and when in their prime. Take a piece of cotton-wool, wet it and wring it out, and twist it about the stalks. If tin boxes are used they must not have sharp corners, or they will be rejected at the post-office, but when properly made they excel all others for the purpose in question. At the bottom of one of these place a piece of stout brown paper (if thin, double it); let this be well dampened, then lay the flowers carefully in, placing a piece of silver or tissue paper between each to prevent their bruising each other. Over all place a piece of the same paper, and on this a little cotton-wool. Cover the box with paper, and the flowers will reach their destination in good condition.

Let us add the modes of faulty packing to warn our friends against their adoption: 1. Placing the flowers in contact with dry cotton-wool, which clings to them and abstracts their moisture. 2. Putting them in thin boxes which invariably get crushed in passing through the post-office. 3. Putting the cotton-wool about them too wet, the moisture from which gets shaken over the flowers, and spoils their colors. 4. Cutting the flowers after exposure to the sun, which ensures their falling to pieces on the journey; this also occurs if the blooms are stale.

Some persons in sending flowers think it best to cut them when not fully open, knowing that they will expand in water; but they should learn they do not show their true character either in shape or color under such circumstances. A better plan is to cut off the pistil as soon as it can be done; this will insure the flower lasting a considerable time.

How to Hang a Grindstone.

There is probably no appliance of the machine shop or manufactory to which so little attention is paid as the grindstone, and it is very rare indeed that this useful tool is found to be in perfect order. A writer in the *Iron Age* gives the grindstone a thorough handling and we draw from him some useful hints on hanging.

There have been very decided improvements made over the old style of fixtures for hanging grindstones, which generally consisted of a square shaft, which was wedged into a square hole in the middle of the stone, at the imminent risk of bursting the stone when at rest, or of endangering the life of the grinder when in motion. Now, all shafts, from the smallest to the largest, are made of round iron (wrought), with a screw and nut, by means of which two cast iron plates are pressed against the sides of the stone, which is firmly held by pressure and friction, and relieving it from any tendency to burst, and adjusting it with the greatest precision. These plates are sometimes bolted to the sides of the stone, with a square shaft on which the stone is adjusted by means of screws passing through a projecting rim on the plates, but we think these holes have a tendency to weaken the stone.

Before adjusting the stone on the shaft the two sides should be made perfectly parallel, so that the flanges will bear evenly; then adjust the shaft, and if the stone does not run true the high side can be placed uppermost, and by gently unscrewing the nut and striking the stone it can be made to drop the desired distance which can be indicated by the flange. In our largest establishments the stones are turned off perfectly true outside of the shop, so as to avoid the dust which injures the machinery and by leaving a depression in the sides of the stone of the size of the flange it will run true without further labor. After being thus adjusted it should be kept true by the free use of the hacker, and should not be allowed to stand in water. A diamond carbon tool is used where great nicety is required, and the sides of the stone are painted (without the use of oil, however), in order to prevent the moisture from entering, and thereby keeping the edges square.

Grapes as Food.

We have on former occasions, says the *Journal of Chemistry*, referred to the value of fruits as articles of diet, both in health and in sickness. Grapes may deservedly claim a high rank among the fruits in this respect. They contain a considerable amount of hydrocarbonaceous matter, together with potassium salts, a combination which does not tend to irritate, but on the contrary to soothe the stomach, and which is consequently used with advantage even in dyspepsia. According to Dr. Hartsen, of Cannes, in France, who has recently contributed an article on the subject to a foreign medical journal, the organic acids in the grape, especially tartaric acid, deserve more consideration than they have generally received. Their nutritive value has, he thinks, been much underrated. It is known that they are changed to carbonic acid in the blood, and possibly careful research may show that they are convertible into fats. Dr. Hartsen thinks that they should be ranked with the carbo-hydrates as food. They have been found a valuable diet in fever, and the success of the "grape cures" in the Tyrol and other parts of Europe appears to show that they are positively beneficial in other diseases. No doubt the good results of a residence at these establishments are in a measure to be ascribed to the climate and the general hygienic discipline adopted. The advantage does not wholly consist in the fact that so many pounds of grapes are eaten daily, but partly in the fact that other less healthful things are *not* eaten; and pure air and exercise are also important elements in the curative treatment. But after giving all due weight to these allied influences we must allow no small fraction of the beneficial result to the grapes.

Varnish for Paper.—An elastic flexible varnish for paper, which may be applied without previously sizing the article, may be prepared as follows: Crush transparent and clear pieces of dammar into small grains; introduce a convenient quantity—say 40 grains—into a flask, pour on it about six ounces of acetone, and expose the whole to a moderate temperature for about two weeks, frequently shaking. At the end of this time pour off the clear saturated solution of dammar in acetone, and add, to every four parts of varnish, three parts of rather dense collodion; the two solutions are mixed by agitation, the resulting liquid allowed to settle, and preserved in well filled phials. This varnish is applied by means of a soft beaver hair pencil, in vertical lines. At the first application it will appear as if the surface of the paper were covered with a thin white skin. As soon, however, as the varnish has become dry it presents a clear shining surface. It should be applied in two or three layers. The varnish retains its gloss under all conditions of weather, and remains elastic; the latter quality adapts it especially to topographical crayon drawings and maps, as well as to photographs.

To Test the Strength of Vinegar.—The strength of vinegar is determined by the number of grains of bicarbonate of soda a troy ounce will completely neutralize. For instance, to test the strength of vinegar, weigh out one ounce, then find how many grains of bicarbonate of soda the vinegar will neutralize or dissolve. If thirty grains are neutralized, the vinegar is said to be thirty grains strength. To test the purity of the vinegar, pour out half a wine-glassful and add ten or twelve drops of the solution of muriato of barytes. If the vinegar is pure it will show no change. If it contains acid it will gradually turn to a milky hue, according to the quantity of acid it contains.

Success with Steam Wagons.—According to the Centennial correspondent of the *Rural New Yorker*, the English have some steam wagons at the exposition which are good for something. He writes: "One of the most attractive and interesting features of the trial of agricultural implements, was the two road and farm locomotives, manufactured by Aveling & Porter, of Rochester, England, sent here in charge of their general agent for the United States, Mr. W. C. Oastler, No. 43 Exchange place, New York city. Superintendent Geddes remarked to me that he had no idea what he should have done without those locomotives. They seemed to be capable of going anywhere that a horse and wagon could and of doing 20 times the work. One of these locomotives was started off toward the middle of the field, placed in position and used to supply power for testing the threshers. The other was coupled to the threshers and brought them to the spot for testing. They turned in almost their own length, and were capable of putting the heaviest machine in position with the greatest ease. The engineer of the locomotive which was used for this purpose made no mistakes and never got confused. He made his steam horse do its work every time. Since I first saw these engines, I have been astonished that so few of them have been utilized in America. Mr. Oastler informs me that he has but 55 in use in this country, and I am quite positive that one could be used on all our large Western farms profitably. But we shall come to them in time."

The Preservation of Timber.

During the last 20 years, several methods have been tried for making timber more durable, the principle of which consists in expelling the sap remaining in the ligneous fibres, in order to replace it by chemical solutions, such as sulphate of copper and creosote; but these processes, comparatively costly, and only partially successful, do not entirely accomplish their object. Starting from the fact that oak, chestnut, and certain American trees resists the action of air and damp better than others, and they owe this property to the tannin which they contain, a chemist proposes to tan the timber by substituting for the sulphate of copper and creosote a compound of tannic acid and iron. The object of injecting various substances into wood is to poison them, so that germs and microscopic growths may no longer live and propagate either on the surface or in the interior. Now tannin is one of the most active and certain destroying of germs both vegetable and animal, which in fact accounts for its preservative agency. Besides, it is to tannin that is due the almost indefinite preservation of leather. One peculiarity to be noticed in this process is that timber treated with this compound of tannin and iron, that is to say a composition similar to ordinary writing ink, is turned black.

The process of injecting timber with tannate of protoxide of iron is due to M. Hatzfeld; the Eastern railway company of France has experimented with it on some sleepers, and the telegraph department on some posts.

M. Boucherie has denied, in a note to the *Academie*, the efficacy of this process, contending that the attempts already made to preserve timber from dry rot by injecting it with iron salts have yielded only partially successful results, while sleepers treated by sulphate of copper have lasted 25 years and more. Reply is made to these objections by quoting—not the experiments of the laboratory or workshop, but those made by time itself. It is not a rare circumstance to encounter in earth of a ferruginous nature the trunks of very old oaks, blackened and perfectly preserved; at Rouen, in 1830, some old oak piling was discovered as black as ebony, and dating back to the Middle Ages. Not very long ago, too, a Norman vessel built of oak was discovered in an almost perfect state of preservation in the neighborhood of an iron mine in Norway. It is more than probable that the preservation of the oak under these circumstances is due to the tannin contained in the wood; it follows, therefore, that by introducing a substance rich in tannin into timber that does not naturally possess it, its resistance to decay is increased.—*Jour. Society of Arts.*

A Cheap Railroad.—The Lone Rock, Wis., correspondent of the *Railway Age*, describes a cheap railway, as follows: The total cost of rolling stock at present is, therefore, $8,219, leaving the entire cost of the 16 1-5 miles of road but little more than $60,000, or considerably less than $4,000 per mile for grading, ties and track. This remarkable cheapness is explained by the fact that the rails are of maple wood instead of iron. They consist of scantling, from 12 to 16 feet long, and three and a half by five inches in size, the narrow sides being at the top and bottom. The ties are of oak, every second or third tie being squared, set up edgewise and furnished with a couple of "gsins" (or transverse cuts), in which the rails are sunk and wedged. The ends of the rails are sawed with long bevels, and bolted to each other, besides. The gauge of the track is three feet. The road thus made is apparently as good as iron in everything except durability, in which respect I have no data for comparison. Iron rails are used at curves, where much side pressure would be brought. I rode out to Richland Center, last night, on this new thoroughfare, and back this morning. The engine by which our train was run weighs 11 tons, and its tender weighs two tons. The flat cars weigh 7,640 pounds, and the covered freight car (which is now used for passengers) is of about five tons weight. The facilities for riding are not of the best, benches and chairs making all the accommodations thus far, but even now it is better than the stage coach. A round trip from Richland Center is made every morning and evening, the time being an hour and a half each way, or at the rate of about 11 miles an hour.

New Method of Cleaning Wool.—*Les Mondes* describes M. Pauline's new method of cleaning wool, for which such important advantages are claimed. According to this a current of air of thirty or forty degrees temperature is passed through the raw wool, followed by a current of hydrochloric acid gas, previously dried and cooled. In this way the wool is not affected, but any vegetable substances adhering to it are speedily and entirely decomposed. After this has been effected, a current of air is passed through to dispel the hydrochloric acid gas and the temperature is gradually raised to 130 degrees, to complete the destruction of the various vegetable matters. This being done, a current of air charged with ammonical vapor is then passed through, in order to get rid completely of any remaining traces of hydrochloric acid, and the operation is accomplished.

"Twenty Dollars a Year."

"I would not be without that Rural Press for twenty dollars a year," says an old subscriber to our agent in Yolo county; "That is the best paper out for good and useful information. I have had the reading of it for two years, but now will take it."

A Standard Employment Agency in San Francisco.

The agency to which we would now call the attention of the readers of the CALIFORNIA PATRON, was established twenty years ago, and is the oldest establishment of the kind on the Pacific coast. From a small beginning in 1855, it has grown to such dimensions that it has been compelled repeatedly to move into more commodious quarters, and now it occupies the large double store formerly occupied by M. Gray & Co., No. 625 Clay Street, next door west of the banking house of the San Francisco Savings and Loan Society, one of the most central business locations in the city. MESSRS. CROSETT & CO. are daily supplying orders sent from all parts of the State, containing requests for every variety of labor, for the farm, the field, orchard, vineyard, tending stock, or cultivating the soil; for all kinds of lumber, milling and mining work, from superintendent down to simple laborer; for the shop, mechanics, engineers, artisans, and skilled workmen of every kind. Nor do their orders contain requests for male help alone. Great pains is taken to supply our housewives with the very best Domestics, Cooks and General Housemaids that can be obtained. They would call the especial attention of GRANGERS AND FARMERS GENERALLY to their facilities for supplying farm help. Referring confidently to their past record for faithful attention to the wants of patrons, they have no hesitation in assuring all applicants who may favor them with their orders, that they can nowhere else be better or more promptly served than by applying to this old established agency. Mr. Crosett gives his constant personal attention to his business. His long experience makes him quick to see and accurate in judging of the merits of those who apply to him for situations. And his well established and wide extended reputation brings to his office an abundant supply of every kind of labor, from which he is enabled to select the best.

All this advantage Mr. Crosett gives to those who favor him with their orders, and that, too, without any expense to the employer—all the fees, (which, by reason of a large business being transacted, are moderate), being paid by the employee. The Employment Agency of Messrs. Crosett & Co. is supplying a great need in our State and we take pleasure in commending it to all readers of the PRESS.

THE NEW WILLCOX & GIBBS Automatic Tension Silent Sewing Machine is the latest and most marvellous invention in sewing mechanism. It is the only sewing machine that can be used successfully without instruction or experience, and invariably does perfect and durable work. First premium at American and Franklin Institute Fairs, November, 1875. Send for circulars and price-list to Willcox & Gibbs Sewing Machine Co., E. B. Cutler, Gen. Agent, 111 Post street, S. F.

AMERICAN MANURES, OR FARMERS' AND PLANTERS' GUIDE.—Comprises a description of the elements and composition of plants and soils; the theory and practice of composting; the value of stable manure and waste products, etc. Also, a chemical analysis of the principal manufactured fertilizers—their assumed and real value—and a full expose of the frauds practised upon purchasers. By Wm. H. Brueckner, Ph. D., Phila. Sold at this office. Price, $1.75; post paid.

THE THRESHERS' GUIDE, by D. W. Hollihan, a practical operator with threshing machinery in California and other States. A book of useful and friendly hints to the grain growers, machine owners and threshing superintendents and workmen. Published at the RURAL PRESS office, in 1872. Price, $1; in limp cloth binding, 75 cents; postage paid.

NOW'S THE TIME.—Everybody interested in mining and agriculture should subscribe for the Centennial year for either the RURAL or the SCIENTIFIC PRESS, published by Dewey & Co., San Francisco. They are the best journals of the kind in this country, and deserve the support of all those whose cause they espouse. Everything of interest connected with the Centennial, appropriate for these papers, will be collated. Send in your names.—*Mountain Messenger.*

THOUGHTLESSNESS.—Persons sometimes return their paper, marked "stop this paper." Their name being pasted on the sheet they think that is all we need to be able to cross their names off. Now that is thoughtlessness. Your P. O. address is needed as much as your name. We have thousands of names arranged only according to locality. Our mailing clerk does not know where everybody lives.

BE MORE PARTICULAR.—We can only make the changes requested by the following parties on our mail list, when they, or some one else, send us their P. O. address. Otherwise we would have to look over from 7,000 to 10,000 names. Frank Becker, O. Seawell, L. Boyer, M. Levis, F. Anson, and Antonia Byros.
We also want the address of Wm. Buck.

GOOD PRINTING INK.—We prefer Chas. Eneu Johnson's printing inks, having used them on this paper for the past four years. H. S. Crocker & Co., printers, stationers, blank book and paper dealers, are Johnson's S. F. agents.—DEWEY & Co., Publishers.

A SOUTHERN HOME FOR SALE.—See advertisement of Lee H. Utt, whose fine place in San Diego county, is for sale.

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That more farmers' wives and children in their isolated homes may be cheered by its weekly visits, laden with its pleasing, yet moral reading, and sound instruction.

That a more extended interchange of views and opinions may be had among farmers, upon all the great questions touching their mutual interests and progress.

That the agricultural resources of the Pacific States may be more wisely, speedily and thoroughly developed by an open and free discussion in our columns.

That all the honest industries of our State may be advanced in connection with that of agriculture, our columns being ever open to the discussion of the merits of all progressive improvements.

That the RURAL, after having been read and pondered over by the home circle, can be filed away for future useful reference, or forwarded to the old Eastern fireside of the Atlantic border, in aid of an increasing immigration to our sunny clime.

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DEWEY & CO.

"Faith and Confidence"

LIVERMORE, Oct. 1st, 1875.

MESSRS. DEWEY & Co., Patent Solicitors: *Gentlemen*—Yours of the 29th ult. containing my patent to Elevated R. R. duly received, and I hereby return my sincere thanks to the MINING AND SCIENTIFIC PRESS Patent Agency for your promptness and honesty in regard to our business connections. I have received a flood of circulars from Eastern firms, desiring to deal with me, but I have declined any communication with them and prefer, as soon as circumstances will permit, to negotiate with and patronize a home institution; one in which I have faith and confidence—DEWEY & Co.

Again thanking you for your promptness in securing my patent, I remain, obediently yours,
WM. H. HARRISON.

Much Obliged, Etc.

PORTLAND, OGN., June 26th, 1876.

DEWEY & Co., Patent Solicitors, S. F.—*Gents:* I am much obliged to you for courtesy shown me, and am well pleased with the manner in which you have done my business, and assure you, will cheerfully recommend you to my acquaintances needing such services. Hope to have a case again before long, of my own. I have been an inventor all my life, but let others reap the benefit, or had work stolen from me. Please have the extra copies of my patent, etc., mailed to me direct, and oblige Yours truly, J. H. WOODRUM.

IMPROVED.—Dewey & Co., publishers of the MINING AND SCIENTIFIC PRESS and the RURAL PRESS, now have the leaves of both these sixteen page sheets cut and stitched, which is an improvement that all readers of that otherwise inconvenient form of journal will appreciate very much. Every farmer would be a gainer were he to subscribe for the RURAL. It is decidedly a valuable paper, and the SCIENTIFIC PRESS is no less so to mining men.—Inyo Independent.

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

MENZO SPRING,
Manufacturer of
Dr. Bly's Patent Artificial Limbs.
OFFICE AND ADDRESS,
No. 166 TEHAMA STREET,
Cor. Third, bet. Howard and Folsom, San Francisco
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ALEX. BUSWELL,
BOOK BINDER, PAPER RULER
AND BLANK BOOK MANUFACTURER,
521 Clay Street, S. F.
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JOHN LUTTRELL MURPHY,
Attorney and Counsellor at Law,
NO. 535 CLAY STREET,
SAN FRANCISCO.

GRANGERS' BUSINESS ASSOCIATION,
Incorporated Feb. 10th, 1875. Capital Stock, $1,000,000.
OFFICERS and DIRECTORS:
DANIEL INMAN, (PRESIDENT). AMOS ADAMS, (SECRETARY). THOS. FLINT.
R. C. HAILE, (VICE PRESIDENT). THOS. UPTON. G. P. KELLOGG.
JOHN LEWELLING, (TREASURER). I. C. STEELE. W. L. OVERHISER.
O. HUBBELL. D. CAMPBELL.
SHIPPING and COMMISSION HOUSE,
Grangers' Building, - - - - 106 Davis Street, S. F.
Consignments of Grain, Wool, Dairy Products, Fruit, Vegetables, and other Produce solicited, and advances made on the same. Orders for Grain and Wool Sacks, Produce, Merchandise, Farm Implements, Wagons, Etc., solicited and promptly attended to.
We do a strictly Commission Business, and place our rates of Commission upon a fair legitimate basis that will enable the country at large to transact business through us to their entire satisfaction.
Consignments to be marked Grangers' Business Association, San Francisco. Stencils for marking will be furnished free on application.
DANIEL INMAN, Manager.

BREEDERS' DIRECTORY.
PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.
POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.
A. MAILLIARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.
PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.
R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.
EDWARD FRISBIE, on line of Cal. P. R. R., near Vallejo, Pure Bred Leicester Sheep For Sale.
GARNIER BROS., Encino Ranch, Los Angeles Cal., breeders of pure French, Spanish, and Saxon Merino Sheep. Price, from $25 to $50, each.
A. G. STONESIFER, Hill's Ferry, Stanislaus Co. Cal., breeder of Pure-Blooded French Merino Sheep
L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.
B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.
M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.
T. A. WILSON, Grayson, Stanislaus county, Cal. Breeder and Importer of Spanish Merino Sheep.

POULTRY.
M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.
M. FALLON, Cor. Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Fowls for Hatching from Pure Bred Fowls.
GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.
MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

SWINE.
ALFRED PARKER, Bellota, San Joaquin Co., Cal., Breeder of Improved Berkshire Swine.

GEO. B. BAYLEY,
IMPORTER AND BREEDER OF
Jersey Cattle,
Choice Poultry, Etc.
OAKLAND
Poultry Yards,



Cor. 16th and Castro Streets, Oakland.
Send stamp for circular, containing a full description of all the best known and most profitable fowls in the country.
G. B. BAYLEY,
P. O. Box 659, San Francisco.

H. K. CUMMINGS. 1858. H. H. HALSTON. 1876.
HENRY K. CUMMINGS & CO.,
Wholesale Fruit and Produce Commission House,
ESTABLISHED 1858.
No. 424 Battery street, southeast corner of Washington San Francisco.
Our business being exclusively Commission, we have no interests that will conflict with those of the producer

Davis & Sutton, Commission Merchants,
For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

Live Stock Notices.



Pure Blooded French Merino Rams
And 100 Choice Young Ewes
For sale by MRS. ROBERT BLACOW, of Centerville, Alameda county, Cal., near Niles Station, on the Western and Southern Pacific railroad.
These Sheep are guaranteed of pure descent, from the French Imperial Flock at Ramhouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proven to be the heaviest shearers in the world.
☞NEW MILCH DURHAM COWS FOR SALE.



We respectfully call the attention of Farmers and Stock Raisers to our large and superior flock of Angora Goats. We have about 300 head of Pure Breed Angoras to select from, some of which are superior to any in America. Our prices are set according to the merits of the animal, and everything guaranteed to be as represented. Send for circular. LANDRUM & RODGERS.
Watsonville, Santa Cruz Co., Cal.

TRADE MARK.
CALVERT'S
CARBOLIC
SHEEP WASH,
$2 Per Gallon.
T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

To All Interested in the Production of
CALIFORNIA RAISINS.
We are now in communication with reliable parties who have had 20 years' experience in the business in Spain, whereby we can furnish any information with regard to curing, packing, etc., gratis. We have perfected arrangements by which we can furnish cuttings of the famous Malaga Raisin Grapes direct.
FEUSIER & SPAFFORD,
310 and 312 Clay Street, San Francisco.

E. B. MOTT, Jr.,
IMPORTER AND DEALER IN
STOVES, METALS AND TINWARE
And Sole Agent for the Rathbone Range.
53 and 55 J Street, Sacramento.

INTERNATIONAL HOTEL
ALL NEWLY FURNISHED,
824 & 826 Kearny St., - San Francisco, Cal.
$1.50 & $2 per day. Free Coach to the House.
H. C. PATRIDGE, - - - Proprietor

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"ELAINE"
THE FAMILY SAFE GUARD OIL

50 Visiting Cards, with your name finely printed, sent for 25c. We have 100 styles. Agents Wanted. 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

[Continued from page 129.]

over which she has so long held supreme control." However unjust such implications of decay against England may be, in fact there can be no doubt but there is a quiet but strong undercurrent of feeling, among the French, in favor of the United States at the expense of England. The situation is becoming so apparent that Englishmen are beginning to avoid the subject with a "yes—but" and sudden change of conversation to some other topic.

A General View.

Entering the building by the south or main entrance, we find, as in the other two buildings already noticed, the foremost place assigned to foreign exhibitors—Great Britain and her colonies upon our right as we enter, Germany and France upon our left. Passing up through the main avenue and reaching the center of the structure, which is occupied by a large fountain, you are in position to get the best general view of the entire exhibit. Yet it is so large in dimensions, and so divided into puzzling sections, that it is necessary to exercise a vast deal of care and patience as well as perseverance in order to fully satisfy the curiosity of the first preliminary visit, and so learn the situation of things as to enter upon a careful examination and study at subsequent ones. Near this central position is a full size, old-fashioned windmill, for grinding wheat and corn, whose broad arms, reaching from floor to ceiling, seem to have braved the wind and weather for the entire century whose history and progress is spread out before us. This is a central point, visible from nearly every part of the building, and which will serve as a guide for your future wanderings. Standing by its side and facing the east—see the diagram—you have before you, upon the right and left, a perfect wilderness of all kinds of machinery and implements adapted for use on the farm. This display occupies nearly one-half of the entire area, and motive power is furnished to put in motion all such as require to be thus shown.

The Machinery on Exhibition.

We have before us upwards of thirty threshers. This, it will be recollected, was one of the first agricultural machines put in use, and originated in Scotland towards the close of the last century. The reaping machine followed close upon its heels. To-day the eye may wander among fully one hundred of these machines, some of them finished as beautifully as pieces of jewelry, with rosewood frames and metalic parts glistening with burnished silver plate. Plows are here in almost endless number and variety of form and make. About three hundred are shown—stubble and sod, prairie and ridging, gang and sulky, mole and ditching, etc. Some "too handsome to be put in the ground," and others old and ancient enough in appearance, to have been left in the field by Cincinnatus himself. One shines forth in all the glory of burnished golden plate, and another near by, raised high upon an extemporized pedestal, presents about as rough and uncouth an appearance as could well be wrought out of iron and wood. This plow is said to have been mostly constructed by Daniel Webster, at his old Marshfield farm. The marks of the hammer, evidently wielded by an unaccustomed hand, as it shaped the iron, are still visible, while it is quite evident a hatchet or drawing knife were the finest tools which put the finish upon the woodwork. This plow bears the date of 1837, and measures thirteen feet in length, with great awkward handles six feet long, and a spread of fully three feet. From the front of the point to the back of the 20-inch mold-board the distance is five feet four inches! Then we have cultivators and harrows, forks and rakes, rollers and drills, corn planters and potato planters, and potato diggers in almost endless profusion. Every conceivable invention designed to lighten the labor of man in tilling the ground, and harvesting and handling its crops, is here represented. The display of such edge tools as axes, scythes, sickles, corn and hay knives, straw cutters, etc, etc., is also in proportion.

Eleven States are exhibitors of machinery and tools, and their displays reflect the highest credit upon American inventive genius and skill. With the few minor exceptions already noticed, no foreign names appear upon the hundreds of wonderful machines that are here displayed. They have been nearly all invented by American brains, and form a proud exhibit to the nations of the world of what this great people has done during the first century of its existence as a nation. "All along the line," in the various exhibits of old and new, we may trace the gradual but steady advancement in the manufacture of machinery for the farm. No function in agriculture seems to have been overlooked; no difficulty has been encountered which has not been triumphantly overcome. Here it is that the progressive farmers of the land delight to congregate. It is in agricultural hall, before all other places on the Centennial grounds, where the American feels most fully at home, most completely master of the situation. He is there before a congregated world, foremost in all the improvements which lay at the foundation of every human industry, which are inspired by the desire to save the toil of man in his most laborious efforts to feed the inhabitants of the earth by the cultivation of its millions of acres. It is here that the sharers in this toil assemble in great numbers, largely moved by a mutual, fraternal understanding, which is a mystery to those of other industries, and those who are accustomed to the constrained manners and ways of the more conventional life in cities and towns.

There Is no Formality Here,

No introduction or ceremony is needed to bring visitors from distant parts together in social interconrse and mutual study and admiration of things around them. Each becomes at once acquainted with the other, showing that there is in every deed "much humanity in all mankind." Each talks easily and well, not only of the reapers, and threshers and mowers, and the various products of the earth and sea by which they are surrounded, but also of the various topics of the day, the literature and politics of the country, and the literature and politics of the various foreign nationalties, with the representatives of which they are here thrown in contact. All this gives evidence of progress in something else than matters of mere material interest. With the introduction of machinery on the farm, and the substitution of steam and horse power for human muscle, the farmer has gained more time for thought and study. Business associations, with which he was formerly unacquainted, and new and enlarged social relations and privileges have grown up during the time in which the reaper and mower have been pushing out and away the sickle and the scythe. The school and the farm have become more closely united. The Grange, too, has come in with its noble, elevating and humanitarian influences, and is gathering up our now better educated young ladies and young men of the farm, and fitting them for the practical duties of improved social life, and the high responsibilities of citizens of a republic. The

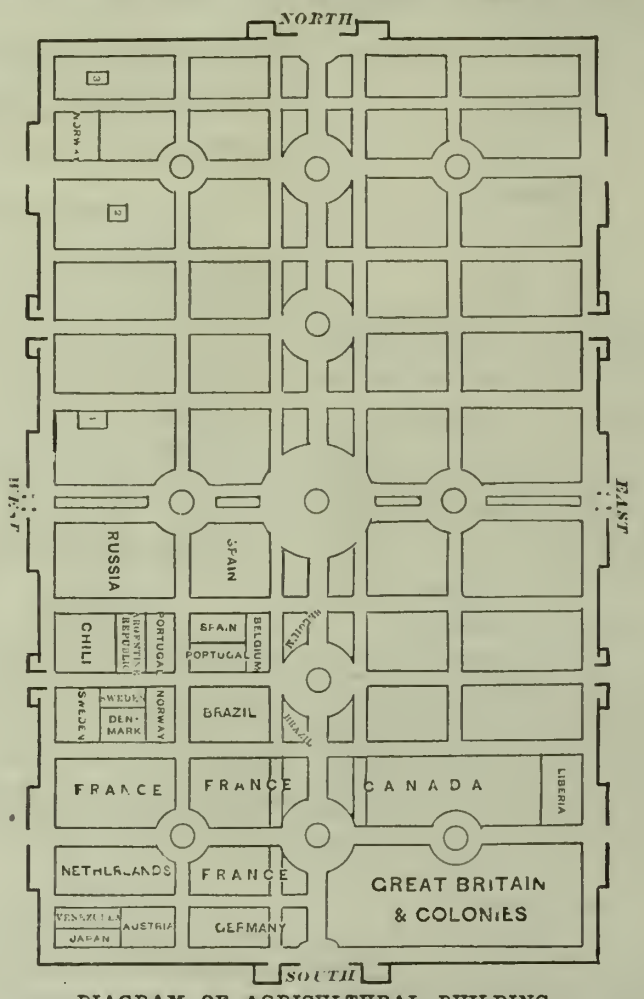


DIAGRAM OF AGRICULTURAL BUILDING.

farmers are rapidly being elevated from the least to the most intelligent and active among the industrial classes of the country, and by reason of their larger numbers and improved status they will soon become the controlling power of the land. At no time or place has this spirit and fact of progress been more fully developed than at this present international gathering. The most casual observer, if he observes at all, must notice it. It stands prominently out, at all times, in this great farmers' hall; it is still more apparent in that other great farmers' headquarters, the Grange encampment, near by. This exhibition is a great school, where object lessons are being taught on a magnificent scale—and no class may derive more benefit therefrom than the farmers. Every tiller of the soil who can spare the time and money should take advantage of it. It is the opportunity not of a lifetime merely, but of a century. No one can visit the Centennial without learning more in regard to all the great facts of life than could be obtained by any other means at the same cost of time and money. W. B. E.

MR. BRITTAIN'S SALE OF HORSES.—An auction sale of fine stock took place at the farm of M. L Brittain, near Redwood City, on Wednesday, the 9th, under the management of Messrs. Crego & Bowley, auctioneers. The schedule contained about 100 head of stallions, mares, colts, fillies, roadsters, trotters and work-horses; the blood represented being Hambletonian, Black Hawk, Patchen and Clydesdale. The sales ranged from $30 to $1,300, which latter sum was paid for the stallion inauguration, but the bids in no case exceeded a fair valuation. Seventy-four head were sold, the aggregate amount realized being in round numbers $13,000.

Agriculture at the Mechanics' Fair.

The Mechanics' fair is now in full blast and is worth going miles to see. The Pavilion is a galaxy of interesting and instructive displays. The steam power gives the machinery motion, and nearly all implements and tools are shown in working movement. The horticultural annex is a bower of beauty and fragrance, and is floored with a growth of fresh grass and clover, which would make a cow dance to set tooth in.

Although we believe a farmer who goes to the fair should look at everything, from gilt edged satin furniture down to the plainest box of provisions, still there are matters which are particularly within the sphere of the farmer's work, and in this department of industry the fair is very creditable. In order that our readers may know some of the compass of the agricultural features of the display and the men to whom credit is due for arranging them, we have noted down the leading exhibitors as follows:

Agricultural Implements.

Linforth, Kellogg & Co., 3 and 5 Front street, have a large display of agricultural implements, including the Pacific grain thresher and Mansfield portable steam engine. The Fish Brothers' wagons, Giant fanning mills, Russel self-rake reaper, Wood's mowers, Furst and Bradley sulky rake, Garden City cultivator, Myer's excelsior gang plow, Garden City "Clipper" steel plows and the Freedman harrow.

Frank Brothers & Co., 349 Market street, exhibit the La Belle wagons, the Sweepstakes grain thresher and Hoadley portable steam engine; McSherry's grain drill, the Buford gang and Black Hawk steel plows; also Wood's mowers, reapers and self-binders.

Marcus C. Hawley, 108 and 110 Froot street, shows the Gaar, Scott & Co.'s grand gold medal separator, portable steam engine, the Buckeye mowers, reapers and seed drills, the Regulator wind mill, a French burr mill and a fine display of hardware.

D. M. Osborne & Co., Auburn, N. Y., have a good display of Kirby & Wheeler mowers and reapers, of which they are the manufacturers.

I. M. McCormick, Chicago, Ill., exhibits a full line of his harvesting machines.

The Price press company, 17 Front street, shows two sizes of the Eclipse baling press.

W. I. Tuatin, corner Beale and Market streets, has his windmills and horse powers in position to attract general attention.

E. O. Hunt, 37 Fremont street, exhibits his Centennial windmill.

W. C. Nelson, Vallejo, Cal,, the Iron King windmill.

In the department of carriages and wagons are fine displays by Larkins & Co., 631 and 633 Howard street, Holcomb & Bro., 24 Geary street. B. Gallager, 222 Fremont street, H. M. Black, 855 Market street, Crego & Bowley, 9 and 10 Merchants' exchange, Carville manufacturing company, 180 Jessie street, and W. Halkett, 36 Hayes street.

A portable steam engine, the Straw-burner, manufactured in England, is shown by E. L. Ransome, 10 Bush street.

I. C. Bidwell'a branch house, 349 Market street has a number of steel castings of various patterns on exhibition.

A. S. Hallidie, 412 Clay street, shows wire worked into almost every conceivable shape and form, from a fine hair to a two-inch cable, or from a bird cage to a summer house; several of the latter adorning the Pavilion garden.

Howard & Morse, 420 Sansome street, also show wire work, their line being more confined to wire cloth.

E. K. Howes & Co., 118-122 Front street, occupy a central position which they have tastily filled with their various articles of woodenware.

Armes & Dallam, 215-217 Sacramento street, have a well arranged line of wooden-ware.

Geo. W. Swan, Union box factory, 114-124 Spear street, makes a large show of useful articles.

The Pacific Saw Co.'s display of their various styles of saws, is very fine and complete. Their place of business is at 17-19 Fremont street.

Baker & Hamilton, 17 Front street, show several Price excavators.

Osborn & Alexander, 626 Market street, foot-power machinery.

The Pacific glass works, King street, near foot of Fourth street, have arranged a pyramid of glassware of their manufacture.

The Buffalo scales are out in full force. G. A. Raymond, agent, 105-107 California street.

W. T. Garrett makes a "highly polished" display of bells and brass work.

Weed & Kingwell of the California brass works, 125 First street, exhibit a collection of brass wares and bells.

San Francisco Pioneer screen works, 32 Fremont street, has a full assortment of sieves and screens properly labeled.

The San Francisco Cordage Co., 611-613 Front street, makes a good show of rope, cordage, paper barrels, egg and butter cases.

The Selby lead works, corner First and Beale streets, exhibits lead pipe and shot.

The Sacramento pottery's display is large and good. I. B. Owens, agent, 20 California street.

California Fertilizing Co. makes a "bottled" exhibit.

The Salamander Felting Co. a display of "asbestos materials."

Fruits and Products.

In the Pavilion garden there is a space set apart for fruit exhibits. The display is not nearly so large as it should be. A few varieties of pears, plums, peaches and apples, very choice, are present from the ranches of Jesse Cheny, Santa Clara, and Remyon's and Barry's ranches, Sacramento river.

A fine display of Pacific Coast and other products is made by the *Journal of Commerce*, of this city.

General News Items.

THE Senate has confirmed the nomination of A. M. Clapp as public printer.

THE big explosion in making the excavation at Hell Gate, will take place September 5th, and 65,000 pounds of powder will be used.

A VIENNA dispatch says: Part of the crown jewels of Servia have been sent to Vienna as security for a loan of 62,000 florins.

THE President has signed the Legislative, Executive and Judicial appropriation bill and the Indian appropriation bill. All the regular annual appropriations have now been approved.

WILLIAM RULOFSON, of the firm of Bradley & Rulofson of this city, has been chosen president of the national photographers' association, now in session at Philadelphia.

IT is now charged that traders have been for some time furnishing arms and ammunition to the Sioux Indians. It is said that 138,000 weapons have been sold to them.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

FOR WEEK ENDING AUGUST 8TH, 1876.

SOFA BEDSTEADS.—John A. Bigger, S. F.

ANVIL VISES.—Joseph Bolt, Benicia, Cal.

ROASTING ORE FURNACES.—Henry H. Eames, Oakland, Cal.

PROVISION SAFES.—George McIntyre, S. F.

FAIR LEADERS FOR SHIPS' RIGGING.—James Sampson, S. F.

FLUE AND TUBULAR BOILERS.—Andrew Jackson Stevens, Sacramento, Cal.

TRADEMARKS.

OVERALLS.—Rodmond Gibbons, S. F.

A PARTICULAR KIND OF POCKET.—Rodmond Gibbons, S. F.

POCKET AND CROTCH STAY.—Rodmond Gibbons, S. F.

——The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Wednesday, Aug. 16th, 1876.

The course of trade has progressed quietly during the week, with but little incident. The cable price for Wheat has fluctuated considerably, and closes to-day below the record of a week ago, as will be seen in the table below. During the week seven Wheat vessels were cleared from this port for England, and as many more will go this week, During the first 12 days of the month, 10 Wheat cargoes have been cleared for England, against 12 in the corresponding portion of last August.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	CAL. AVERAGE.			CLUB.		
Thursday	9s	5d@ 9s	9d	9s	8d@10s	1d
Friday	9s	3d@ 9s	6d	9s	5d@10s	—
Saturday	9s	3d@ 9s	6d	9s	6d@10s	—
Monday	9s	3d@ 9s	5d	9s	6d@10s	—
Tuesday	9s	1d@ 9s	4d	9s	5@ 9s	10d
Wednesday	9s	1d@ 9s	4d	9s	5d@10s	—

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.			Club.		
1874	11s	2d@11s	4d	11s	7d@12s	3d
1875	11s	2d@11s	5d	11s	6d @12s	—
1876	9s	1d@ 9s	4d	59s	d@10s	—

The Foreign Review.

Under date of Aug 14th, the *Mark Lane Express* says: Harvesting is everywhere in progress. Recent showers have benefited the pasture and root crops, without damaging the grain. Farmers in many districts of England and France are disappointed at the Wheat yield, which is less than expected, although pretty good. Oats also are likely to be somewhat short. The prospect of the Pea crop is favorable. Local trade is dull, and is likely to remain so until the results of the home and foreign harvests are definitely known. Supplies of foreign Wheat are heavy. The weather has also distressed market sales, with a decline of a shilling per quarter. Large arrivals of Maize and Oats have caused a decline of sixpence on the spot, but forward shipments of Maize are steady. Provincial markets have been quiet and firmer, because less influenced by foreign supplies. Some few cases of slight advance have occurred. The floating cargo trade has been dull, at a decline of a shilling per quarter for Wheat.

Freights and Charters.

Rather more activity has taken place in the freight market during the past week. Wheat charters on the spot remain dull, the views of shippers and owners differing greatly about the price. Rates are difficult to quote, says the *Post*, though £3 to Cork for orders may be considered an outside figure. At this writing we have 43,842 tons of tonnage in port engaged for Wheat, 4,766 tons engaged for miscellaneous purposes, and 27,193 tons disengaged. The engagements of the week have been as follows: Ship Whittier, 1,295 tons, Wheat to Cork for orders, £3. Ship Corsica, 1,337, Wheat to Liverpool, Dublin, Bristol or Havre, £3 5s, or Cork for orders, £3 7s 6d, prior to arrival. Br ship Pizarro, 1,381, Wheat to Liverpool, £2 19s. Br ship Conflict, 1,171, Wheat to Cork for orders, prior to arrival, private. Ship Monte Rosa, 1,337 tons, Wheat to Cork for orders, prior to arrival, private. German bark Thedor Korner, 919, Wheat to U. K., private. German bark Adolph, 581, Wheat to U. K., private. Br ship Firth of Clyde, 824, Wheat to Cork for orders, prior to arrival, private, Br ship Ellen Goudy, 914, Wheat to Liverpool, £2 19s Fr bark Rancagua, 710, Wheat to Cork for orders, owners' account. Br ship Sydenham, 1,063, Wheat to Cork for orders, private. Br ship Margarita, 684, Wheat to Cork for orders, prior to arrival, private.

Chicago Grain Trade.

A dispatch from Chicago dated 14th, says: The fine weather which has continued for the past week has enabled farmers to secure in almost perfect condition their wheat crops, and has kept prices down to almost the lowest figures struck this year. It has also developed the facts that an unusual large acreage has been gathered in every wheat-growing section, and that the quality of this year's crop is far superior to that of last year. The farmers, however, are sending this cereal to market in small quantities, which indicates that they at least consider present prices too low. The developments of the next fortnight are looked forward to with much interest, and it is believed that either prices will recede materially, or rebound to something like their normal standing. Cash Wheat has sold from 83½c. to 89c., but by far the greatest amount has been transferred at nearly the inside figure. Receipts have been 55,000 bushels, against 263,000 in the corresponding week last year, and shipments, 153,000 bushels, against 582,000 last year. Corn has ruled rather weak, selling as low as 44½c.; but trading is restricted, and heavy receipts do not hold out much encouragement for higher prices. Receipts during the week were 1,577,000 bushels, against 631,000 of last year; shipments, 1,148,000 bushels against 938,000 of last year. Oats are steady at prices slightly depreciated from last week's.

New York Grain Trade.

A New York dispatch, dated August 13th says: The improvement in breadstuffs last week has been lost, and the market closes depressed and very irregular under good harvest reports at home and abroad. The quality of the Wheat coming forward is still mostly soft and moist, and is not wanted by exporters. Some of it is being kiln dried at a cost of ten cents per bushel, but even then it is poor and only realizes that much above the prices for soft spring growths, which have sold all the way from 80c to $1.19 from unsound to choice, the best No. 2 not being worth even one dollar. New winter is selling from 90 cents to $1.30, as to quality and condition. Sound Corn is scarce and firm at 56@58 cents. Barley nominal. Shipping flour has declined and is very dull so far as the European trade is concerned. Spring Wheat, shipping grades, radge from $4.50 to $6, the latter price for fancy city.

The Canadian Barley Crop.

The following extract from a private letter from Canada will be read with interest by holders of Barley, as affording ground for the hope that an opening may be obtained in the East for a portion of our large surplus. It is well known that Canada supplies a large portion of the brewing Barley used in the Atlantic States. Our farmers had decided to reduce the acreage of Barley last spring, and planted about two-thirds of what was sown in 1875, but heavy rains having set in and continued until too late to plant spring Wheat with safety, they were obliged to increase the acreage of Barley, and we had, therefore, about the same area planted as last year. We experienced spleudid growing weather until about the middle of June, when hot dry weather followed, hardening the heavy clay lands, checking the growth and causing the heads to form on very short straw. On light soil the Barley grew very luxuriant, almost rank, so that when the extremely and continued hot weather followed, the heads formed and ripened too rapidly, thus causing the berry to be light in weight and the yield very deficient. We are sorry to report that the early sown Barley will be thin, not weighing over 46 pounds to the bushel. The late sown grain will be plumper. The yield per acre will be fully one-third less than last year. Some reports from threshing machine men report a deficiency of one-half, but this can be more accurately determined when the threshing has become more general.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

ARTICLES.	WEEK JULY 26.	WEEK AUG. 2.	WEEK AUG. 9	WEEK UG. 16.
Flour, quarter sacks	30,811	34,412	153,051	46,352
Wheat, centals	227,563	259,425	251,400	272,236
Barley, centals	27,757	64,955	65,018	58 170
Beans, sacks	1,093	415	40	467
Corn, centals	1,482	2,342	3,001	1,227
Oats, centals	3,945	3,103	5,549	3,517
Potatoes, sacks	15,248	13,496	14,254	15,275
Onions, sacks	1,182	1,085	1,178	1,111
Wool, bales	2,458	2,059	2,350	2,519
Hops, bales	4	1	38	23
Hay, bales	2,226	2,983	2,591	1,671

Bags—Bags are still cheaper. For several weeks we have had occasion to go down, down, down on Bags, and now the market is quotahle easy at 12c for Standard Wheat, with 11¾c as a possible figure. During the week there have been arrivals of three ships carrying bags, and the market is full. Burlaps are cheaper, as may be seen from our qnotations below.

Barley—The receipts of barley have been very large and prices have tended toward the inside rates of our quotations. A ship load of 25,896 ctls has cleared for Iquiqui. We notes sales as follows: 700 sks good Feed, $1; 150 sks Coast Feed at $1, all silver; 300 do do, $1, half silver; 1,000 ctls old Brewing, $1.35, half silver; 1,300 ctls Feed, 1n lots, at $1, silver; 85 ctls old do at $1, half silver; 2,500 sks choice Bay, in two lots, 97½c, gold; 200 do Coast Feed, 95c; 600 do good do, 97½c, all silver. The stock of old Brewing is not large, and choice lots are selling at $1.30 per ctl, half silver.

Beans—Receipts are very light and chiefly upon order. Prices are still nominal.

Corn—Corn is weaker than last week. Transactions have been few. We note a sale of 400 sks large Yellow at $1.25.

Dairy Produce—Butter is firm. Fresh Roll shows a hardening tendency. Cheese is unchanged. The market is considerably clogged by large quantities of very inferior quality which are offered at almost any price.

Eggs—Eggs are still weak, with an inside quotation, one point lower than last week.

Feed—Hay maintains its former range, about $8 to $13.50. We note the following sales: 40 tons fair Volunteer, $10; 44 tons fair Wild Oat, $9.25; 13 do good Tsme Oat, $12; 1 cargo Oat at $12; 1 do stock, $9.25; and 50 tons Cow at $10.50; 30 tons fair Wheat, $11. The market has been running chiefly on common grades.

Fruit—Peaches are higher and in less quantity. Apples are more plenty. Another cargo of Tahiti Oranges is at hand. Second crop Figs are plentiful.

Fish—The market is well supplied and prices are low.

Hops—No local change is noted. Emmet Wells reviews the New York market for the week ending August 4th as quiet on all grades below choice, for which there is a fair demand at full prices. California Hops are quoted nominal at 15 to 18c.

Oats—Oats are unchanged. We note sales of 100 sks good Feed, $1.55; 225 sks fair Feed, $1.50.

Onions—Onions are selling slowly at former figures, the best quotable at 60@75c.

Potatoes—Receipts are very large and the market is heavy. The best qualities reach 60@80c.

Provisions—The trade is wholly without change or new features.

Poultry—Poultry to-day is cheaper for all kinds.

Rye—There has been a small sale of Ryo at $1.40 per ctl, gold. Holders ask $1.50 per ctl.

Vegetables—Lima Beans and Sweet Potatoes are very plentiful and much cheaper. Canteloupes are at hand beyond the needs of the market. Prices for Vegetables may be found in our tables below.

Wheat—The fluctuations of the cable have had no influence upon local rates. Transactions in this market are comparatively light. Stockton prices are reported at from $1.40 to $1.45, the latter figure having been paid for an extra quality of clean Wheat. Sales in this market are as follows: 400 sks San Diego Milling $1.52½; 2,000 ctls Shipping, $1.50; 385 sks Superfine, $1.37½; 450 sks good San Diego, $1.52½; 3,000 do Shipping, $1.50; 500 do Coast Superfine, $1.37½; 1,000 ctls Santa Clara Milling, $1.55; 10,000 ctls good Shipping, for export to Australia, per *City of San Francisco*, $1.52½; 700 sks good Milling, $1.55; 400 do Superfine, $1.35; 100 do Milling, $1.52½; 750 otls choice new Milling, $1.60; 2,000 do Shipping, $1.51½; 1,650 do, $1.50.

Wool.—We note nothing new in the local trade in Wool. The Esstern markets are reported by telegraph as follows:

NEW YORK, August 13th.—The demand for Wool though not so active as last week, has been fair in the aggregate, and the advances noted at that time have, without exception, been well maiutained. There is still a desire shown on the part of manufacturers to obtain what supplies are likely to be needed in the manufacture of fall wear this season, and dealers generally exhibit a disposition to meet their demands promptly at current prices. Stocks here now are quite low, but it is understood that an abundant supply still remains in the hands of farmers throughout the West. The sales for the week are 1,000 pounds Cape at about 33c.; 5,000 pounds Mexican, at 14o.; 2,900 pounds Spring California, at 16@22c.; 40,000 pounds fall do, at 13@15c.; 10.000 pounds do. pulled, 30c.; 5,000 pounds do. scoured, 60c; 50,000 pounds white Colorado,17@19c.; 5,000 pounds Georgia, 26@35c.; 1,000 pounds Texas at 15@20c. for Western, and 19c. for Eastern; 5,000 pounds do. scoured, 50c ; 142,000 pounds XXX and combing Ohio fleece, 36@40c.; and 150 bales Cape, for export to Canada, 10,000 pounds black Colorado, 10,000 pounds Oregon, 5,000 pounds unwashed Western fleece, 314 bags lambs' pulled, 52 do, 1 Fo., 7 do, No. 2 do. 40 do X do., and 5,000 pounds domestic on private terms.

PHILADELPHIA, August 15.—Wool is in good demand. Prices are firm bnt the supply light, tending higher, California fine and medium, 18@25c; coarse, 16@20c.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., Aug. 15, 1876.

BEANS.			
Bayo, ₱ ctl	4 00	@4 50	
Butter	1 90	@2 25	
Pea	1 92½	@ —	
Pink	2 50	@3 00	
Sm'l white	1 60	@1 90	
Lima	1 90	@2 00	
BROOM CORN.			
Common, ₱ lb	2	@ 3	
Choice, do	4	@ 5	
COTTON.			
Cotton, ₱ lb	15	@ 18	
DAIRY PRODUCE, ETC.			
BUTTER.			
Cal. Fresh Roll			
per lb	30	@ 35	
Point Reyes	35	@ —	
Pickle Roll	30	@ 32½	
Firkin	25	@ 30	
W'st'n Reserve	16	@ 22½	
New York	—	@ —	
CHEESE.			
Cheese, Cal., lb	10	@ 15	
do Old	—	@ —	
Eastern	12½	@ 15	
EGGS.			
Cal. fresh ₱ doz	35	@ 37½	
Ducks'	—	@ 35	
Oregon	32	@ 35	
Eastern	21	@ —	
FEED.			
Bran, per ton	16 00	@17 50	
Corn Meal	28 00	@29 00	
Hay	7 00	@13 00	
Middlings	24 00	@— —	
Oil cake meal	—	@33 50	
Straw, ₱ bale	55	@ 60	
FLOUR.			
Extra ₱ bbl	5 50	@5 87½	
Superfine	4 50	@4 75	
Graham, ₱ bbl	5 50	@ —	
FRESH MEAT.			
Beef 1st quality lb	6	@ 8	
Second do	5	@ 5¾	
Third do	3½	@ 4	
Spring Lamb	5½	@ 6	
Mutton	3½	@ 4	
Pork, undressed	7	@ 7½	
do, dressed	10¼	@ 10⅝	
Veal	6	@ 6½	
Milk Calves	5½	@ 7	
GRAIN, ETC.			
Barley, feed ctl	9	@ 1 00	
do brewing	1 20	@ 1 25	
Chevalier	1 25	@ 1 35	
Corn, White	1 25	@ 1 30	
do Yellow	1 25	@ 1 35	
Oats	1 40	@ 1 75	
Milling	1 80	@ 2 00	
Rye	1 30	@ 1 32½	
Wheat shipping	1 50	@ 1 [illegible]	
do milling	1 60	@1 [illegible]	
HIDES.			
Hides, dry	10	@ 12½	
do wet salted	6	@ 8	
HONEY, ETC.			
Beeswax, per lb	25	@ 30	
Honey in comb	12½	@ 15	
do Strained	5	@ 8	
HOPS.			
Old crop	10	@ 13	
NUTS—Jobbing.			
Alm'ds h'd sh'l ₱ lb	8	@ 10	
do, soft sh'l	18	@ 20	
Brazil do	14	@ 16	
Cal. Walnuts	12	@ 14	
Chile Walnuts	11	@ 12½	
Peanuts per lb	8	@ 9	
Filberts	15	@ 16	
Pecanuts	17	@ 18	
ONIONS.			
Union City ctl	—	@—	
Stockton	50	@— —	
New Red	50	@— —	
Silver Skins	60	@— — 70	
POTATOES.			
Petalnma, ₱ ctl	—	@ —	
Salt Lake	—	@ —	
Humboldt	—	@ —	
Half Moon bay	62½	@ 80	
Early Rose new	65	@ —	
Sweet	2¼	@ —	
POULTRY & GAME.			
Hens, per dz	5 00	@9 50	
Roosters	5 00	@7 00	
Broilers	3 00	@5 00	
Ducks, tame, dz	5 00	@7 00	
do Muscovy	—	@8 00	
do Canvass	—	@8 00	
Geese, per pair	2 00	@2 25	
Wild Gray dz	3 00	@4 00	
White	1 50	@2 00	
Turkeys, Live, lb	15	@ 18	
do Dressed	20	@ 24	
Quail, per doz	—	@	
Snipe, Eng., doz	—	@— —	
Doves, per dozen	50	@ 57	
Rabbits	1 00	@1 00	
Hare, per doz	1 50	@2 10	
PROVISIONS.			
Cal. Bacon, L't, lb	16	@ 17	
do Medium	15½	@ 16	
do Heavy	—	@ 15½	
Lard	14	@ 16½	
Cal. Smoked Beef	10	@ 12½	
Eastern do	—	@ 10	
East'rn Should's	—	@ 10	
Hams, Cal	14	@ 14½	
do Armour	—	@ 15	
do Worster's	17½	@ 18	
do Dupee's	16½	@ 17	
do Davis Bros'	17½	@ 18	
SEEDS.			
Alfalfa, Chile lb	8	@ 10	
do California	11	@ 12	
Canary	10	@ 12	
Clover Red	—	@ 22	
do White	50	@ 55	
Cotton	6	@ 10	
Flaxseed	—	@ 3¼	
Hemp	12½	@ —	
Italian Rye Grass	25	@ 30	
Perennial do	20	@ 30	
Millet	10	@ 12	
Mustard, white	3	@ 3½	
do. Brown	3	@ 3½	
Rape	7	@ 9	
Ky. Blue Grass	30	@ —	
do 2d quality	29	@ —	
Sweet V Grass	—	@ 75	
Orchard do	30	@ 35	
Red Top do	—	@ 25	
Hungarian do	8	@ 12	
Lawn do	50	@ —	
Mesquit do	20	@ 25	
Timothy	11	@ 13	
TALLOW.			
Crude, ₱ lb	5	@ 5½	
Refined	8¾	@ 9	
WOOL, ETC.			
SPRING—			
Seedy, ₱ lb	9	@ 12½	
Choice long free	17	@ 18	
do Northern	19	@ 20	
do short	13	@ 16½	
Burry	10	@ 14	
Oregon	14	@ 18	

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., Aug. 16, 1876.

BAGS.			
Eng. Stand Wht	12	@—	
Neville & Co's			
Hand Sewed	12	@—	
24x36	—	@—	
24x40	—	@—	
Machine do 24x40	—	@15½	
" " 23x40	14½	@—	
" " 22x40	13	@—	
" " 22x36	11¼	@—	
Flour Sacks ⅛s	9	@11	
" " ¼s	8	@ 7	
" " ⅛s	4½	@ 5	
Hessian 60-in	12¼	@14½	
do 45-in	10	@—	
do 40-in	8½	@—	
Wool Sacks, 3½ lbs	45	@50	
do 4 "	50	@52½	
Stand. Gunnies	11½	@12	
single seam do	—	@—	
Bean Bags	7	@ 8	
CANNED GOODS.			
Asst'd Pie Fruits			
in 2½ lb cans	2 75	@ 3 00	
do Table do	3 75	@ 4 25	
Jams & Jellies	1 25	@—	
Pickles ½ gl	—	@ 3 50	
Sardines, qr box	65	@ 1 90	
do hf boxes	3 00	@—	
COAL—Jobbing.			
Australian, ₱ ton	8 75	@ 9 00	
Coos Bay	—	@ 9 00	
Bellingham Bay	—	@ 9 00	
Seattle	—	@ 9 00	
Cumberl'd	14 00	@15 00	
Mt. Diablo	5 75	@7 75	
Lehigh	—	@22 00	
Liverpool	10 00	@11 00	
West Hartley	—	@14 00	
Scotch	9 00	@10 00	
Scranton	13 00	@16 00	
Vancouver's Isl.	10 50	@12 00	
Charcoal, ₱ sk	75	@—	
Coke, ₱ bbl	—	@ 60	
COFFEE.			
Sandwich Island	—	@ 21½	
Costa Rica per lb	22½	@—	
Guatemala	—	@ 22½	
Java	—	@ 31	
Manilla	—	@ 21½	
Ground in cs	25	@—	
Unicory	27	@—	
FISH.			
Sao. Dry Cod, new	—	@ 5½	
cases	6	@ 7½	
do boneless	8½	@ 10	
Eastern Cod	8	@ 8¼	
Salmon in bbls	7 25	@—	
do ½ bbls	3 75	@4 00	
do 2lb cans	2 00	@—	
do 1lb cans	1 35	@—	
do Col. R. ½ b	5 00	@5 50	
Pick. Cod, bbls	22 00	@—	
do ½ bbls	11 00	@—	
Mack'l, No. 1, ½ bls	11 00	@—	
" Extra	—	@12 00	
" in kits	1 90	@2 25	
" Ex mess. 3 5		@4 00	
" Ex mess. ½ bs	—	@12 00	
Pio'd Herr'g, bx	3 00	@ 3 50	
Bos. Sm'k'd Her'g	40	@ 50	
LIME, ETC.			
Lime, S'ta Cruz ₱ bbl	2 00	@ 2 25	
Cement, Rosendale, do	2 75	@ 3 50	
do Portland do	4 75	@ 5 50	
Plaster, Golden Gate Mills	3 00	@ 3 25	
Land Plaster, ₱ ton	10 00	@12 50	
MISCELLANEOUS.			
Pulu	—	@ 7½	
NAILS.			
Assorted size, keg	3 75	@4 00	
OILS.			
Pacific Glue Co			
Neat F't No. 1	1 00	@ 90	
Pure	—	@—	
Castor Oil, No 1	—	@ 95	
Baker's A A	—	@1 15	
Cocoanut	—	@ 60	
Olive Plagniol	5 50	@5 75	
do Possel	4 75	@5 00	
Palm lb	9	@—	
Linseed, raw	—	@ 62½	
do boiled	—	@ 67½	
China nut in cs	65	@ —	
Sperm, crude	1 50	@1 65	
do bleached	1 90	@2 25	
Coast Whales	47½	@ 50	
Polar, refined	—	@ 50	
Lard	—	@1 20	
Oleophine	—	@ 28	
Devoe's Brill't	25	@ 27	
Long Island	—	@ 25	
Eureka	26	@ 27	
Devoe's Petro'm	25	@ 27½	
Barrel kerosene	23	@ 25	
Olive	—	@3 50	
Downer Keroee'e	—	@ 37½	
Elaine	38	@ —	
Gas Light Oil	23	@ 25	
PAINTS.			
Pure White Lead	9¾	@10¼	
Whiting	—	@ 1¾	
Putty	4	@ 5	
Chalk	—	@ 1½	
Paris White	—	@ 2½	
Ochre	—	@ 3½	
Venetian Red	—	@ 3½	
Red Lead	10	@ 11	
Litharge	10	@ 11	
Eng. Vermillion	—	@1 25	
Averill Chemical Paint, per gal.			
White & tints	2 00	@2 40	
Green, Blue & Ch Yellow	3 00	@3 50	
Light Red	3 00	@3 50	
Metallic Roof	1 30	@1 60	
RICE.			
China No. 1	5½	@ 6	
Hawaiian, ₱ lb	7½	@ 7¾	
Carolina, ₱ lb	10	@—	
SALT.			
Cal. Bay, per ton	10 00	@14 00	
do Common	5 00	@ 7 00	
Carmen Island	12 00	@15 00	
Liverpool fine	22 50	@25 00	
SOAP.			
Castile ₱ lb	10	@ 11¼	
Common brands	4½	@ 6	
Fancy do	7	@ 9	
CANDLES.			
Grant's	16	@ 16½	
Mitchell's	18	@ 20	
SPICES.			
Cloves ₱ lb	45	@ 47½	
Cassia	23½	@ 26½	
Citron	28	@ 30	
Nutmeg	95	@ 97½	
Whole Pepper	14½	@ 14¾	
Pimento	16	@ 17½	
Gr'nd Allsp'rdz	—	@1 12	
do Cassia do	—	@1 50	
do Cloves do	—	@1 50	
do Mustard do	—	@1 20	
do Ginger do	—	@1 00	
do Pepper do	—	@1 00	
do Mace do	—	@2 00	
Bowen's Pure Ground ₱ lb	—	@ 50	
SUGAR, ETC.			
Cal. Cube per lb	—	@ 12¼	
Circle A crushed	—	@ 12	
Powdered	—	@ 12¼	
Fine crushed	—	@ 11	
Granulated	—	@ 11⅛	
Golden C	—	@ 10½	
Hawaiian	10	@ 11	
Cal. Syrup in kgs	—	@ 62½	
Hawaiian Molasses	25	@ 27½	
TEA.			
Oolong, Canton, lb	19	@ 25	
do Amoy	28	@ 50	
do Formosa	40	@ 80	
Imperial, Canton	25	@ 40	
do Pingsuey	45	@ 80	
do Moyune	80	@1 00	
Gunpo'der, Cant.	75	@1 00	
do Pingsuey	50	@ 80	
do Moyune	65	@1 25	
Y'ng Hy., Canton	28	@ 40	
do Pingsuey	40	@ 70	
do Moyune	65	@ 87	
Japan, ½ chests, bulk	30	@ 75	
Japan, lacquered bxs, 4½ and 5 lbs	45	@ 67	
Japan do, 3 lb bxs	45	@ 90	
do pl'n bx, 4½ lb	35	@ 65	
do ½ & 1 lb paper	30	@ 55	
TURPENTINE.			
Eastern	51½	@55	

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., Aug. 15, 1875.

FRUIT MARKET.			
Oranges Mex. ₱ M	—	—@—	
Tahiti, do	25 00	@30 00	
Cal. do	—	—@—	
Limes, Mexican, ₱ M	20 00	@25 00	
Malaga Lemons, ₱ bx	—	—@—	
Cal. ₱ 100	2 00	@ 2 50	
do Sicily ₱ b'x	15 00	@—	
Bananas, ₱ bnch	1 50	@ 2 50	
Cocoanuts, ₱ 100	7 00	@ 8 00	
Pineapples, ₱ dz	—	@—	
Apples, ₱ box	50	@1 25	
do Choice	—	@1 25	
Apricots, lb	1¾	@ 2½	
Blackberries, case	3 00	@5 00	
Cherries ₱ lb	18	@ 20	
Plums lb	1	@ 2	
Figs	3	@ 5	
Gooseberries	5	@—	
Huckleberries	—	@—	
Strawber's ₱ cs	5 00	@7 00	
Pomgranates	—	@—	
Raspberries	12½	@ 20	
Currants, ₱ cs	1 00	@2 50	
Cranberries bbl	13 00	@14 00	
Peaches, ₱ box	—	@1 00	
Crawford	40	@ 80	
Pears, ₱ bx	75	@1 00	
do Choice	1 00	@1 50	
Crab apples, ₱ lb	1	@—	
Grapes ₱ box	26	@ 50	
Rose of Peru	50	@1 00	
Muscat	50	@1 00	
DRIED FRUIT.			
Apples, ₱ lb	—	@ 10	
Pears, ₱ lb	—	@—	
Peaches, ₱ lb	12	@12½	
Apricots, ₱ lb	14	@15	
Plums, ₱ lb	5	@ 6	
Pitted, do ₱ lb	17	@22	
Raisins, imported	3 25	@3 75	
Cal. Raisins	5	@ 10	
Black Figs, ₱ lb	5	@10	
White, do	12½	@15	
Prunes	12½	@17	
Citron	28	@ 30	
Zante Currants	9	@ 10	
VEGETABLES.			
Asparagus ₱ box	—	@—	
Beets ₱ ctl	—	—@ 75	
Cabbage, ₱ 100 lbs	50	@ —	
Carrots, ₱ 100 lbs	50	@ 62½	
Cauliflower, doz	50	@ 62½	
Celery, doz	50	@—	
Garlic, ₱ lb	2	@ 2½	
Green Peas ₱ lb	—	@ 2½	
Green Corn ₱ doz	10	@18	
Sum'rSquash ₱ box	25	@—50	
Marro'fat Squash	10	@—	
Artichokes, ₱ doz	—	@—	
String Beans, ₱ lb	1	@ 1½	
Lima Beans	—	@ 2½	
Parsnips	—	@—	
Shell Beans	3	@ 3½	
Peppers, green, bx	—	@50	
Okra	5	@ 6	
Quonmbers, ₱ box	25	@ 50	
Tomatoes, box	40	@ 50	
Egg Plant, box	—	@1 00	
Rhubarb lb	1	@ 1½	
Lettuce, doz	12½	@ —	
Turnips, pr ctl	50	@ 62½	
Watermelons doz	75	@1 00	
Canteloupes do	50	@1 00	

S. F. RETAIL MARKET RATES.

WEDNESDAY M., Aug. 15, 1876.

POULTRY, GAME.			
Chickens	50	@1 25	
Eggs, Hens	—	@ 50	
do Ducks	—	@ 40	
Turkeys, ₱ lb	25	@—	
Ducks, each	1 00	@—	
Geese, wild, pair	—	@—	
Tame, ₱ pair	1 50	@2 00	
Snipe, ₱ doz	—	@—	
do English	—	@3 00	
Quail, per dozen	—	@—	
Prairie Ch'k's, pr	—	@—	
Hares, each	25	@ 35	
Rabbits, pair	37	@—	
Squirrels each	10	@—	
Hams, Cal. ₱ lb	16	@ 20	
FISH, MEATS, ETC.			
Flounder, ₱ lb	30	@ —	
Salmon, ₱ lb	—	@ 15	
Smoked	—	@ 10	
Cod Fish, lb	12	@—	
Lake Big. Trout	—	@—	
Beef, tend, ₱ lb	20	@ 25	
Corned, ₱ lb	8	@ 10	
Smoked, ₱ lb	—	@ 15	
Porterl'HouseSt'k	20	@ 25	
Sirloin do	15	@ 18	
Round do	10	@ 12	
Pork, rib, etc., lb	12½	@ 15	
Chops, do, ₱ lb	15	@ 20	
Veal, ₱ lb	12½	@ 15	
Cutlet, do	15	@ 20	
Mutton-chops, lb	6	@ 9	
Leg Mutton, ₱ lb	10	@—	
Lamb, ₱ lb	12	@ 15	
Antelope	—	@—	
Tongues, beef	75	@1 00	
do, do, smoked	75	@1 00	
Tongues, pig, lb	12½	@—	
Bacon, Cal., ₱ lb	16	@ 20	
FRUITS, VEGETABLES.			
Apples, pr lb	5	@ 8	
Pears, per lb	5	@ 8	
Apricots, lb	5	@ 8	
Peaches, lb	4	@ 6	
Plums	4	@ 10	
Pine Apples, each	50	@ 75	
Grapes	6	@ 20	
Bananas, ₱ doz	50	@—	
Muskmelons each	15	@ 35	
Watermelons	25	@ 50	
Blackberries	12	@ 15	
Cal. Walnuts, lb	20	@ 30	
Cranber'es, Org., do Eastern qt	—	@ 25	
Huckleberries	—	@ 25	
Strawberries, lb	12	@ 15	
Raspberries, lb	20	@ 25	
Gooseberries	—	@—	
Currants	4	@ 5	
Cherries, ₱ lb	10	@ 30	
Nectarines	10	@ 12	
Pomegranates	—	@—	
Oranges, ₱ doz	50	@1 25	
Lemons	75	@1 00	
Limes, per doz	—	@ 25	
Figs, dried Cal.	12½	@ 15	
Figs, Smyrna, lb	25	@ 35	
Asparagus, lb	6	@ 8	
Artichokes, doz. do Jerusalem	25	@—	
Beets, ₱ doz	20	@ 2	
Potatoes, ₱ lb	2	@ 3	
Potatoes, sweet	8	@ 10	
Broccoli, each	10	@ 15	
Cauliflower	10	@ 15	
Green Peas ₱ lb	4	@ 6	
Cabbage, per hd	10	@ —	
Oyster Plant, bn

Nurserymen.

CAMELLIAS.

WE OFFER A LARGE STOCK OF FINE PLANTS, AT VERY LOW RATES, RANGING FROM 25 Cts. to $1.00, ACCORDING TO SIZE.

ALSO,

Rhododendrons, Azaleas, Evergreens, etc.

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JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

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Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Arencariss, Pines, Cypress, etc.; Fine assortment of Camelias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.

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BLOOMINGTON NURSERY, F. K. PHŒNIX, Bloomington, Ill. Price lists free. 4 Catelogues, 25c.

Seedsmen.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

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Seedsmen,

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Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

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LAW, SOMNER & CO.,

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Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞ Illustrated Catalogue free on application.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of

Lea & Perrins' Sauce,

which are calculated to deceive the Public, LEA & PERRINS have adopted

A New Label,

bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of

Worcestershire Sauce,

after this date, and without which none is genuine.

November 1874.

*** *This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco.

FARMERS write for your paper.

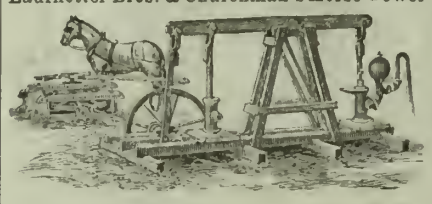
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To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

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[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

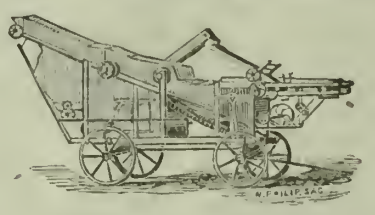
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PATENT FEEDER & ELEVATOR



For Threshing Machines.

The most successful Automatic Feeder yet invented; it has had the severest tests in all kinds of grain, long, short, wet or weedy, during the past six years. There are over two hundred in use in the Sacramento valley. I will give full guarantee to purchasers. Send for special circular. Address,

BYRON JACKSON,

Patentee & Manufacturer,

Woodland, Yolo County, California.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.

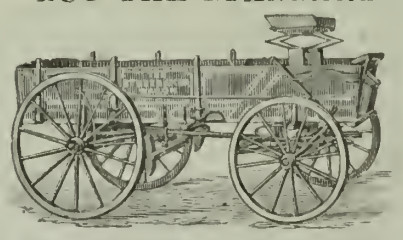


Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

BUY THE STANDARD



STUDEBAKER WAGONS.

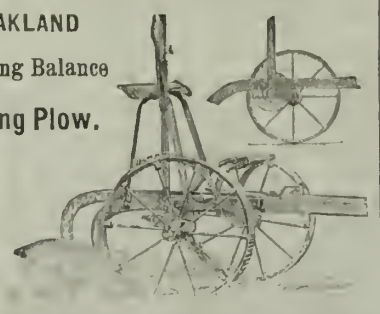
We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

E. E. AMES, Gen. Agent,

Send for Price-List. Sacramento, Cal.

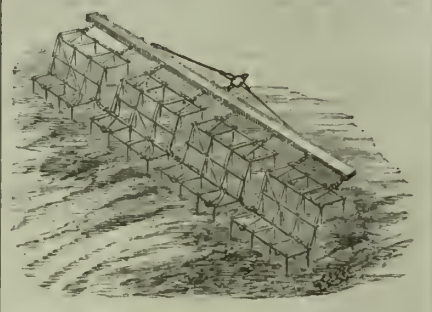
OAKLAND Spring Balance Gang Plow.



Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal Established in 1858. Send for Circular and Price-list

IRON

Sectional Harrow.



This Harrow was Awarded the First Premium at the California State Fair in 1875.

The Undersigned, having Purchased the Patent Right of this Harrow for California, are now Manufacturing them in Roseville, Placer County,

And would call the attention of Farmers to the superior merits of this Harrow over all others now in use.

As its name indicates, it is made in Sections of about three feet in width, each Section having four Bars, in which the teeth are inserted, and by connecting the Sections with links, the Harrow is formed.

SHOULD A FARMER REQUIRE A HARROW UPON HIS FARM TO DO ALL KINDS OF WORK, HE SHOULD PURCHASE SIX SECTIONS, WHICH WOULD BE SUITABLE FOR FOUR HORSES, AND WOULD CUT 18 FEET IN WIDTH; BY DISCONNECTING TWO SECTIONS, HE WILL HAVE A TWO OR THREE HORSE HARROW, CUTTING ABOUT 13 FEET. ONE SECTION ALONE IS COMPLETE IN ITSELF, AND SUITABLE FOR GARDEN WORK, WITH ONE HORSE.

The Harrows are Made of the Best Quality of Iron, and with Teeth Warranted to be Steel.

We give a few of the many reasons why we claim superiority for these Harrows over all others in use on this Coast:

First—By the lightness of draft, taking into consideration the amount of work it does.

Second—By working uneven or rolling ground just as well and as evenly as if it were entirely level.

Third—They are made of Iron and Steel, and therefore are not affected at all by sun or rain, or by heat and cold; they are always tight, and ready for use; they are also durable. A farmer purchasing one has a Harrow that will last a life time.

Fourth—The teeth being fastened with a nut and screw into the cross bars, should one break, another can be inserted in a moment. We are making three sizes, all being the same in width, but differing in depth and weight only.

Prices, from $12.50 to $15.00 per Section.

All orders sent to

BREWSTER & CO,

Roseville, Placer Co.,

Will be promptly attended to, and satisfaction guaranteed in all cases.

CAUTION.

It has come to our notice that certain parties are now making this Harrow in this State, and that several of them have been sent here from the East. Now this is to *caution* all person against making, selling or buying them, so made and offered for sale, as we shall enforce our rights in relation to the matter, and would call the attention of all persons infringing upon our patent, to the *law* in regard to it.

BREWSTER & CO.,

Roseville, July 15th, 1876.

J. W. CASSIDY'S

FRUIT DRIER.

A New Invention, although Thoroughly Tested, which Combines all the Improvements.



We warrant a complete success in drying all sorts of fruit and vegetables as thoroughly and more expeditiously than any other Machine, for less amount of fuel by 35 per cent, as we utilize all the waste heat which is lost by all other Machines.

Its simplicity of construction and its cheapness will put it in the hands of all who may want a Drier. We don't pretend to ask from $1,200 to $1,500 profit and royalty. We are willing that producers should make the profit and keep it. The Machine has been tested to our entire satisfaction, and met our most sanguine expectations. The fruit dried by our Drier was fully as good as that dried by any of the renowned Driers. We would say to all who contemplate putting up Machines, that we can make it a decided inducement for all such to give us a call, as we want to sell the entire right of the United States, State, County or Local, at such prices that the poor as well as the rich can use them. The capacity of the Machine will be in proportion to the size, ranging from 100 to 500 feet drying surface. This dryer was more fully illustrated and described in the RURAL PRESS of May 20th, 1876. Communications to T. F. BACHELOR, 622 Clay St., S. F., or to J. W. CASSIDY, Petaluma, Cal., will be thankfully received and promptly attended to.

Marster's Self Regulating

FEEDER

For Threshing Machines,

Is the only Feeder manufactured that feeds without moving all the straw in a body, consequently gives a more regular feed than it is possible to obtain with a draper feeder; it feeds the whole length of the cylinder; it is easily changed to feed fast or slow as desired; saves the labor of two men and does not require an experienced tableman to feed it. The separator needs no alteration with the exception of the removal of feed board to secure it in position, and does not have to be taken off when moving. It requires but little power to run it, and has no complicated parts liable to get out of order. Its success having been fully demonstrated, I cordially invite all parties interested to call and judge of its merits. For full particulars address

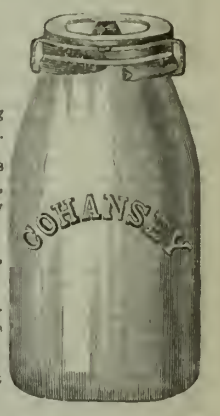
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FRUIT JARS.



FRUIT IN CONTACT WITH GLASS ONLY.

Elastic Pressure by Spring Clamps on Shoulder Joint.

The Screw Clamp turns freely on Cover and Inclines, and tightens the Jar quickly and is Easily Tested.

Easily opened and closed, without wrench or tool.

Every Jar being inspected, there is no trouble in using.

The Handsomest and Best Glass Lid Fruit Jar.

COHANSEY GLASS MF'G CO.,

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SACRAMENTO, CAL.,

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AND CLOSING

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40,000 CASH

To be Distributed in Premiums.

The Exhibition will be divided into SEVEN DEPARTMENTS, and the

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To be Awarded to the most Meritorious Exhibition in each Department. Also,

Five Special Gold Medals,

Each of the value of $100, as per Premium List. Those desiring Premium Lists will please notify the Secretary.

THE LARGEST STOCK SHOW

—AND—

Most Attractive Speed Display

Ever offered by any Agricultural Society in the United States.

☞ PUBLIC SALE OF THOROUGHBRED STOCK at the Park each day of the Fair.

THE CENTRAL PACIFIC RAILROAD AND STEAMERS will carry articles to and from the Fair FREE OF CHARGE.

WELLS, FARGO & CO.'S EXPRESS will deliver all packages FREE, not weighing over 20 pounds.

Applications for Stalls at the Park and Space at the Pavilion should be made to ROBERT BECK, Secretary, at once.

MEMBERSHIP.....$5 00
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42 California Street,

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Authorized Capital, $5,000,000.

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The Bank was opened on the first of August, 1874, for the transaction of general banking business.

California Farmers' Mutual Fire Insurance Association.

No. 38 California Street, Grangers' Building.

CAPITAL, $200,000, GOLD.

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A. D. LOGAN	Colusa	DR. T. FLINT	Hollister

Statement, December 31st, 1875.

TOTAL RISKS WRITTEN	$3,845,189.00
TOTAL PREMIUMS	79,301.72
LOSSES PAID	821.00
ASSETS DEC. 31st, 1875	170,907.41

☞ Farm Property insured at actual cost on the Mutual Plan. Other desirable property insured, and rated according to merit.

WASHINGTON COLLEGE,

WASHINGTON,

Alameda County, Cal.

THE NEXT TERM OF THIS INSTITUTION WILL COMMENCE ON THURSDAY,

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Full Corps of Able and Experienced Instructors.

For Catalogues, address as above.

S. S. HARMON, Principal.

Howell's Improved Patent Wagon Brake.

(Illustrated in RURAL PRESS of August 12th.)

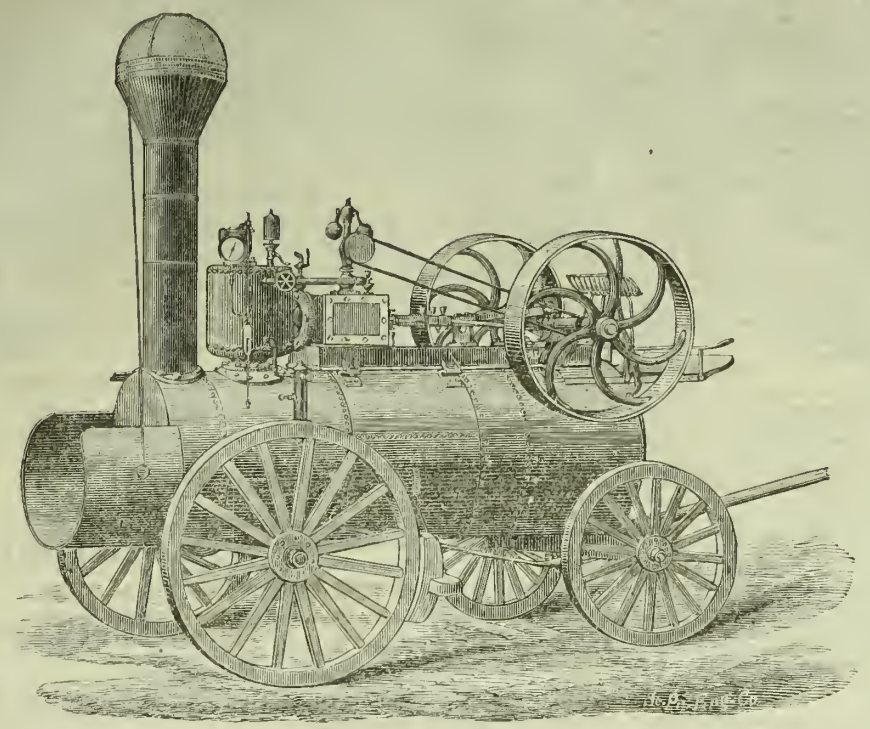
References.—The following are a few of the many persons using the HOWELL BRAKE,—any one of whom can be consulted: C. S. Davidson, Jacob Loncor, G. C. Truex, A. Valentine, John Beatty, Samuel Vansickle, Sylvanus Lawrence, Crispin & Willson, Wm. H. Hart, Joseph Ayres, John H. Ayres, Collins B. Drake, Steward Wells, Michael Yonngs, Wm. Pinkney, Peter Haines, Marshall Ackerson, Jonathan P. Maines, Robert T. Johnson, Overton Heminover,—all of Andover, N. J.

State rights for sale. Address,

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STRAW BURNING THRESHING ENGINES.



Best Portable Straw Burning Thresher in Use.

WILL SELL CHEAPER THAN ANY SIMILAR ENGINE ON THIS COAST.

SHIPMENT JUST ARRIVED.

A. L. FISH & CO., 9 and 11 First Street, San Francisco.,

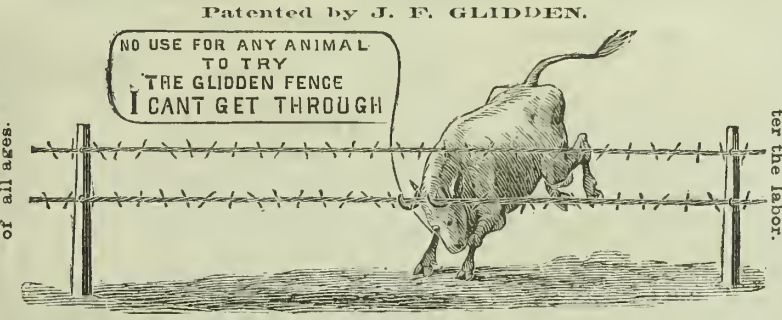
MANUFACTURER'S AGENTS.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all sizes.



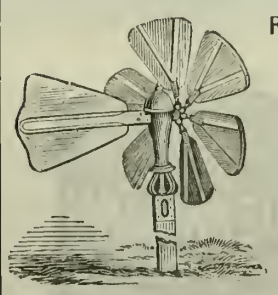
About one-half the cost of any other good fence; and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8 Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—It being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞ Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

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General Agents for the Coast. K and 10th Streets, Sacramento.

AUTOMATIC PUMP.



Raises water by compressed air to any hight or distance. Windmill can be set at any distance from the well or spring if required to get a good exposure to the wind.

SEND FOR CIRCULAR.

J. E. HOLLOWAY, Gen. Agent for Pacific States,

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WHERE THE PUMP CAN BE SEEN IN OPERATION.

JOHN H. GOVE'S

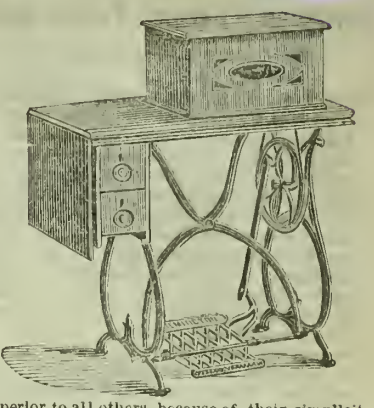
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We invite the acquaintance of all parties connected with inventions and patent right business, believing that the mutual conference of legiiimate business and professional men is mutual gain. Parties in doubt in regard to their rights as assignees of patents, or purchasers of patented articles, can often receive advise of importance to them from a short call at our office.

Remittances of money, made by individual inventors to the Government, sometimes miscarry, and it has repeatedly happened that applicants have not only lost their money but their inventions also, from this cause and consequent delay. We hold ourselves responsible for all fees entrusted to our agency

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We have superior artists in our own office, and all facilities for producing fine and satisfactory illustrations of inventions and machinery, for newspaper, book, circular and other printed illustrations, and are always ready to assist patrons in bringing their valuable discoveries into practical and profitable use.

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United States and Foreign Patent Agents, publishers Mining and Scientific Press and the Pacific Rural Press, 224 Sansome St., S. F,

THE PACIFIC RURAL PRESS

For 1876.

BETTER AND BETTER.

While we cannot promise to labor any more faithfully or earnestly for our readers in the future than we have in the past, we shall endeavor to make the PRESS MORE COMPLETE IN ALL ITS DEPARTMENTS.

Its Editorials,

Will be written by able and conscientious writers, and with such judgment and care as to render the journal of the highest usefulness to its readers, and to the permanent welfare of the new and progressive community its columns especially represent.

New Editorial Talent

Has been engaged to work in co-operation with the senior editor of the RURAL and other assistants, in extending forward some of its important branches.

The Live Stock

Departments—including the horse, horned stock, sheep, goat, swine and poultry interests—will receive constant attention, and our researches for reliable information, which shall be of practical use to our Occidental readers, shall not be limited to any narrow sphere.

The Dairying Trade

Of this coast is yet in small dimension to what it might and should be—to what it is destined soon to be. Intelligent experience; careful experiments; the dissemination of demonstrated facts in regard to the best breeds of stock; information of the best grasses for pasturage for all seasons; the best machines and methods for manufacturing; hints for marketing, etc., will be some of the subjects to be treated in an earnest way in our columns, that the RURAL PRESS may well do its share in advancing one of the most promising industries of the coast.

Our Correspondents

Number some of the ablest domestic writers in the Union, and we are proud to say we would not exchange their co-operative pens for those of any other corps of newspaper correspondents. They are not only friends at heart of our paper, but of the true cause of progressive manhood and womanhood everywhere. Our sources of

Fresh Information

Are not equalled by those of any other agricultural journal in the United States, and making the best use possible of our facilities, we are determined that every issne of the RURAL PRESS for 1876 shall teem with a choice and well dressed variety of desirable information. The pursuit of

Floriculture and Horticulture

On the Pacific slope presents a field of delightful study more prolific in novelty and fruitful in profits than awaits the student and laborer in any other portion of the globe. We trust to exchange valuable hints with our florists, vineyardists and fruit growers throughout the Pacific States.

Our HOME CIRCLE department will contain none other than

Chaste Literature

In pleasing variety, calculated to amuse, instruct and elevate both the young and old boys and girls, who may turn to its columns for pastime and self-improvement.

Our Illustrations

Will be numerous and calculated to please the eye and help the mind to see quickly and correctly many important objects that might otherwise pass their knowledge. Some of them will enable farmers to see and contrast for themselves many kinds of new and important machines and implements. This illustrated feature of our paper, although expensive to its publishers, is an important one to rural readers—especially in new and rapidly developing country.

The Mind and Health

Of the readers of the RURAL will be cared for in our GOOD HEALTH, USEFUL INFORMATION and DOMESTIC ECONOMY columns. Our GENERAL NEWS ITEMS, NEW INVENTIONS, SCIENTIFIC and MECHANICAL MISCELLANY articles will be continued throughout the year.

Agricultural Notes.

Under this head will be reported weekly, carefully selected and condensed items concerning the agricultural improvements and progress of the various counties and districts of the wide field we represent. The

Information of the Resources

Of this coast, set forth in the various departments our paper, is not only of important benefit to its readers, but to every property holder on the coast, through the influence it exerts in stimulating enterprise at home and healthy immigration from abroad. There are but few persons interested in agricultural pursuits here who are not benefited annually by our publication above the amount of its subscription price.

Market Reports.

In its commercial department, the RURAL PRESS will spare no effort to furnish the agriculturist an accurate and trustworthy schedule of the prices which various productions are gaining in the market. We regard this department of our paper as worthy of the most careful and discriminating labor. In our review of the markets we shall present all attainable information concerning the tendency of production of various supplies and the features of the trade in them. We shall afford all the evidence which can be secured for forming true judgment of the features of agricultural trade and commerce. Although this is a difficult department we shall especially strive to give the best weekly domestic produce reports in the city.

The Best is Cheapest.

We might fill our advertising columns with high-price

Quack and Swindling Advertisements,

And our reading columns with paid puffs, and thereby be enabled to furnish a large paper at a remarkably low price, but *we will not do it*. We believe our subscribers prefer a good paper at a reasonable price to the so-called cheap papers that trifle with their confidence. Time is precious, and patrons will find that reading the cheapest which is most suitably prepared for their special avocation and locality.

The Friends of Our Paper

Have done much since its first issue, in January, 1870 to make the RURAL PRESS of the Pacific coast what it is to-day. Thanking them for past kindnesses, we invite all our readers to make known its merits to those who are not yet its reading or advertising patrons.

A Farmer's Paper Throughout.

We repeat that the PACIFIC RURAL PRESS will continue to be a faithful advocate of the best and highest interests of agriculturists on this coast—according full justice to other kindred industries in conjunction with which agriculture alone can permanently thrive.

A Handy Map

Of California and the principal portion of Nevada will be furnished free to all subscribers who pay one year in advance, during the year 1876. The map is plain, printed on tinted paper, about 16x20 inches, showing townships in California, and the counties, railroads and principal towns in California and Nevada.

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No. 224 Sansome street, S. F.—Jan. '76.

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G. W. MCGREW—Santa Clara county.
A. C. KNOX—El Dorado county.
F. A. SCOFIELD—Sonoma county.
O. N. WEST—Santa Cruz county.
CHAS. E. SAJOUS—Philadelphia.
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The owner will warrant the Cavendish Dwarf Banana to grow as well here as in Florida. He has three now growing. The pasture now enclosed will keep 50 head of cattle. The ditch—which is large enough to run a mill—is stocked with trout, and has a fish pond 100 feet square, and full of fish. There is a nice warm spring, with bath house; the water contains sulphur, salts and iron.

The place possesses great natural advantages, and the present owner has not spared money nor labor to improve; but being a valetudinarian he is not strong enough to attend to the work. To the right kind of a man a rare opportunity is here offered. To such a person as will come in good faith he extends the invitation to stop on the ranch long enough to become familiar with its characteristics and capacities.

Parties can refer to I. Nast, stock broker, San Francisco, or to anybody of note in San Diego. The place bears the name of "Aqua Tibia." Address,

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PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, AUGUST 26, 1876. [Number 9

California Opium.

The experiments with the costly drug continues. The latest results are reported from Merced and Mendocino counties. The Merced Valley *Argus* says: "We were shown on Monday last, by J. B. Bruce, druggist at Cook's drug store, a lump or ball of California opium, which was raised on the farm of Col. J. M. Strong, near Hopeton, in this county. Mr. Bruce pronounces the specimen shown us superior to the imported article. Col. Strong is the pioneer cotton planter of Merced county, and we are pleased to say, also, that he has made cotton raising profitable, having pursued the business for the last seven years. But he has made an experiment this season in the production of the important and costly drug above mentioned that may, and probably will, lead to very important results."

The Mendocino *Dispatch*, of Ukiah, says: "Mr. A. V. Stanfield, of this valley, has shown us a sample of opium raised on his farm. He put one acre of ground in poppies, and it yielded from 10 to 12 per cent. of opium."

Mr. A. M. Ruddick, of Ukiah, is also experimenting with the poppy, with what results we are not informed.

There is little chance that the production of opium will come into profit as a general farm crop, but we think that there will yet be money made in it by men who are willing and able to give it the time and skill which its successful introduction demands. We were conversing the other day with a physician who has made up his mind to make a trial of the product. He has two things in mind, first, to produce an article which can be sold to the Chinese for smoking, or else grow the opium and extract the morphia, and not market the opium as such. He has an idea that by extracting the morphia he can induce the Eastern manufacturers of morphia to refine his product and place it upon the market under their brand. The difficulty here, as we have stated before, is that the native opium has no established grade of strength and compounding druggists will not use it in their formulas because they are not certain of satisfactory results. The extraction of the morphia is not a difficult process, although it needs skill and acquaintance with drugs and chemicals to do it successfully. When the product is placed on the market as morphia, we can see nothing to interfere with large and satisfactory sales.

A Washington special says: Senator Mitchell has succeeded in getting all the Agricultural college lands in Oregon approved by the Secretary of the Interior, except 80 acres, as to which there is a conflict.

The Emperor of Morocco has declared his inability to send his customary subsidy to the Sultan of Turkey, owing to the heavy strain on his resources, caused by the suppression of the disturbances in his own dominions.

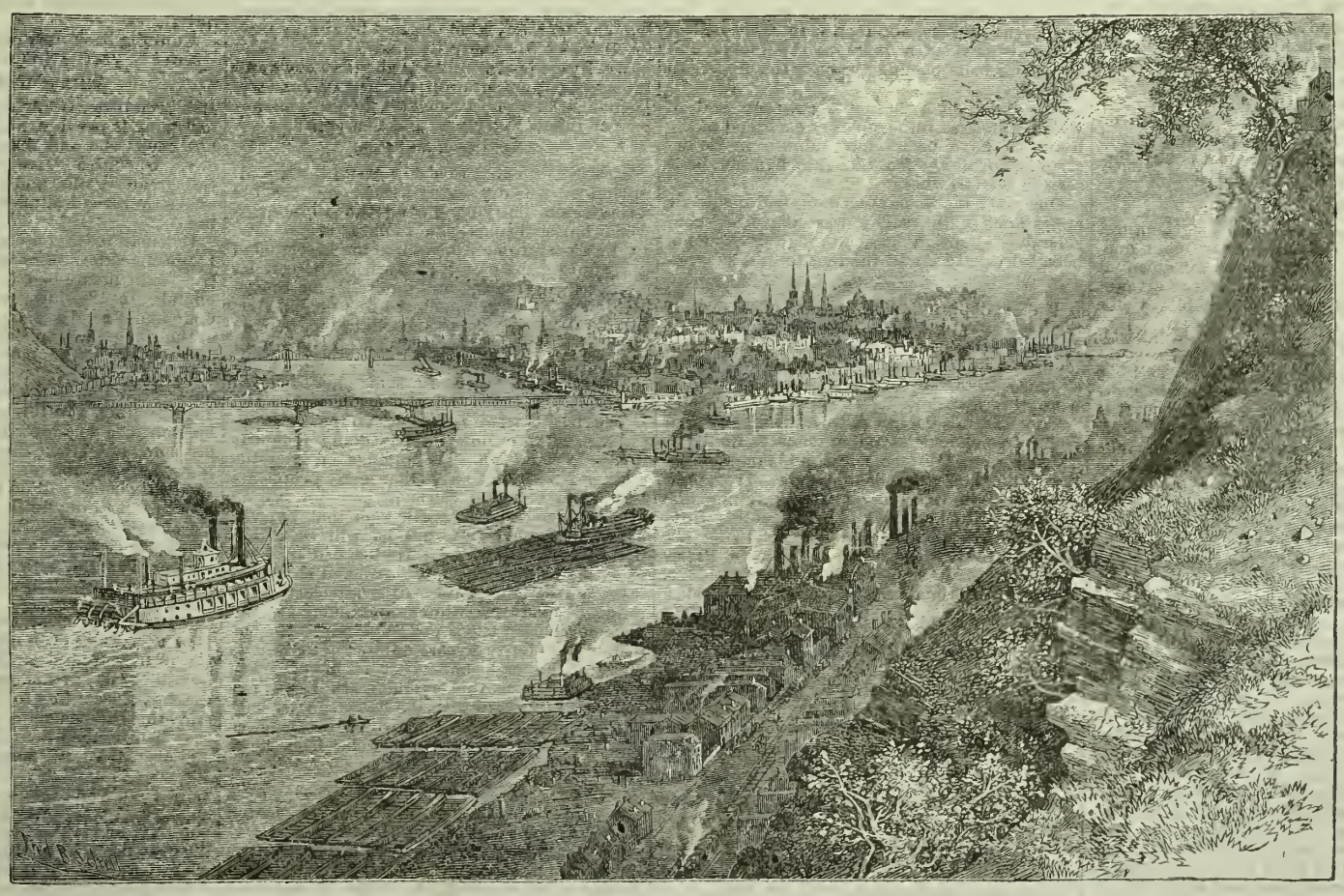
A Manufacturing City.

The illustration on this page is a view of one of the largest manufacturing cities of the United States—Pittsburg. It is the western terminus of the Pennsylvania railroad, and the point of junction with the Fort Wayne and Chicago, the Cleveland and Pittsburg, and the Pittsburg, Cincinnati and St. Louis railroads, and was, in 1870, the sixteenth city in the United States, and uniting with it Allegheny City, which in fact forms part of the same community, was the eleventh in the number of inhabitants, the two containing an aggregate of 139,526 souls. It is built at the junction of the Allegheny and Monongahela rivers, which here unite and form the Ohio, and is particularly distinguished for its iron and glass manufactories, in these two industries outranking any other American center of industry. The capital invested in iron manufactories in 1870 was $26,962,586, and in the manufacture of glass, $4,000,000. It is also the center of an immense coal trade, aggregating over 5,000,000 tons a year. The vast manufactories centered here belch forth ceaseless clouds of smoke, and give it the popular title of the "Smoky City." At night, from the hills surrounding it, the view of the ceaseless fires, bursting luridly through the dense pall which overhangs the entire region, gives it a grand and peculiar appearance, unlike any other place in America.

The country surrounding the city is picturesque, characterized by rugged hights and deep valleys. These natural beauties have been enhanced by public and private improvements, and if they are marred by the smoke which rises from numerous manufacturing industries, their attractiveness is by no means obliterated or destroyed.

Disraeli has issued a farewell address to his constituents, the electors of Buckinghamshire, by whom he has been returned to the House of Commons continuously since 1847.

The weather at New York is decidedly cooler. From various points come reports of frost.



PITTSBURG—VIEW FROM COAL HILL.

Information Wanted of Wool Growers.

We have received a letter from Col. H. G. Otis, of the Santa Barbara *Press*, stating that Mr. John L. Hayes, secretary of the national association of wool manufacturers, Boston, Mass., desires a list of the wool growers of California and the Pacific coast, with an estimate of the size of their flocks. The information is desired for possible future use in procuring national legislation in the wool interest; the influence of leading producers being desirable. We present the matter to the attention of our wool growers so that they can favor Mr. Hayes with the information he desires if they wish. We are personally acquainted with Mr. Hayes and with his work, having been present with him at the wool growers' and manufacturers' convention in Syracuse, N. Y., about five years ago. At this meeting California wool growers were represented, and the action of the convention had a marked influence upon the legislation on the wool interest which was then pending before Congress. We have every reason to believe that any matter which Mr. Hayes and his association may now desire to bring before the wool growers will be worthy of their consideration, and we call attention to the announcement that our wool growers may communicate with Mr. Hayes and learn what his association proposes to accomplish.

California Coffee.—We are receiving from our readers quite a number of samples of "California coffee." S. B. Hitchcock, of Brown's valley, Yuba county, promises to send as much as we like. T. H. Follingsby, of Columbia, Tuolumne county, brought a sample into our office on Tuesday. He says quite a number of miners in that region are roasting and grinding the berries and using the decoction for a beverage. Mr. Schofield, an agent for the Rural Press, brings in another sample from another county. We shall submit these samples to Prof. Hilgard, of the University, that he may make the examination and analysis of the berry, which he promised our readers last winter.

The Hawaiian Treaty.

As briefly noted in last week's Press, the treaty of reciprocal trade with the Sandwich islands has received the approval of the Washington government. The effect of the treaty upon the trade and industry of our State cannot be clearly marked out. It is the opinion of some of our leading merchants that it will not materially affect the price of articles of merchandise which may be imported under its provisions, but a profitable trade is looked for in the articles which we may export. This export trade to the islands does not amount to very much at present, the gross value of our exports to Honolulu being but about $350,000 since the beginning of the year. The treaty gives us free entry to the islands for almost every article of merchandise, produced or manufactured in this country. This will give us an advantage over other countries in all these lines of trade, and the value of the treaty in this respect will of course depend upon the capacity of the islands to use our productions and our enterprise in promoting the consumption of them among the people of the kingdom.

While the treaty gives almost *carte blanche* in respect to the merchandise which we shall send to the islands, it gives the islanders free trade in our ports for the following articles: Arrow root, castor oil, bananas, nuts, vegetables dried and undried, preserved and unpreserved; hides and skins, undressed; rice, pulu, plants, shrubs or trees; muscovado, brown and all other unrefined sugar, meaning thereby the grades of sugar heretofore commonly imported from the Hawaiian islands, and now known in the markets of San Francisco and Portland as "Sandwich island sugar," syrups of sugar-cane, melado and molasses; tallow.

As may be seen, the leading article above is raw sugar. This is the most important product of the islands and upon this article all the opposition to the treaty has been based. In the Southern States, especially in Louisiana, the opposition has been very marked because it is feared that the treaty will depress the price of cane products there. Whether our consumers will reap a benefit in low prices for sugar is not yet certain. The raw product will reach our refiners at a lower rate, but we do not expect to see a commensurate reduction in refiners' prices unless there should be more competition in the business than now exists.

By the terms of the treaty the reciprocity between the two Governments is to continue for seven years or longer. At any time after seven years the treaty may be abrogated by either party giving the other one year's notice. Thus it appears that we are booked for the experiment, and we can but hope that all benefits which its promoters have anticipated may be realized by both nations.

The import duties at this port last week aggregated $255,000.

CORRESPONDENCE.

Notes from Nevada.

EDITORS PRESS:—"Man built the city, but God made the country," is one of the quaint sayings handed down by tradition. It was the utterance of some true lover of the beautiful in nature, who believed the embellishment of the one to be due chiefly to art, while the delights of the other were supposed to spring from a far more bountiful source. Nature has not been specially lavish of her favors towards much of the territory lying east of the Sierras. In fact, an old settler in Nevada, and somewhat of a wag, still clings to the belief that it is only a sort of back-yard for the dirt and rubbish accumulated during the creation of other parts of the earth. Be this as it may, it is very evident that had it not been for the skillful hand of man, directed by a cultivated taste, there would have been found here many a dreary and desolate waste that is now made "to bloom and blossom as the rose."

Since writing from Truckee meadows I visited Steamboat springs, sipped a little of their hot mineral waters, looked down into the lazy streaming fissures, and listened to the boiling, bubbling, hissing, sulphurous waters, rumbling beneath my very feet, and reminding me a little too much of "fire and brimatone" to render the association altogether agreeable.

I passed thence through

Pleasant and Washoe Valleys,

Seeing some good grain fields and many extensive meadows.

The view from some points in Washoe valley in particular, with its white cottages peeping out from many a shady grove, the more imposing mansion at the base of towering mountain, the village in distance, the green grass carpeting broad acres down to the very margin of its beautiful lake, set off by the deep yellow grain of the fields, presented a scene on the whole, to say the least, very pleasing, if not picturesque. Its principal product is hay, furnishing annually two or three thousand tons.

Carson Valley,

Next reached, is much larger, its agricultural and grazing lands, which comprise about one-fifth of the entire area, may be set down at about 40,000 acres; and besides a large amount of the different kinds of grain vegetables, yields its 10,000 tons of hay from year to year,

Mr. H. F. Dangberg,

Alone reaching some years as high as 1,500 tons. He has over 2,000 acres under fence, devoted to hay, grain, or pasture. One of his barns, 100 by 68 feet, has a capacity of 600 tons of baled hay. His barn for horses accommodate about 40 head, and is well arranged throughout, containing room overhead for 100 tons of hay, and three rooms below, one for grain, another for harness and the third occupied as a sleeping room for hostlers. The barley is crushed in a Challenge cracker, and usually mixed with oats. The feeding of the stock is confined to one man, in this way all are fed alike and more judiciously. For greater safety, as well as for securing a good light, the carriage lamp and coach candles are used—an example worthy of imitation. His oats and barley crop last year amounted to 3,600 bushels. He has some blooded stock, consisting principally of fine hogs and cattle. The hogs—Poland China—are very docile and grow exceedingly large. He has quite a number of Durham cattle, red and roan, of all ages and sexes, principally from Abernethy's ranch, Solano county, Cal. Less attention has been paid here to alfalfa than in Truckee meadows, but I understood that there was a large body of sage brush land on his place well adapted to its growth and also to grain, and that a large reservoir was in contemplation in view of more extensive cultivation.

One hot day I passed the

Walley Springs.

Two miles above Genoa, where one glass, at a heat of 160 deg., was more effectual in quenching my thirst than twice the quantity of ice-water. A bath was kindly tendered. To say that it was refreshing, after a travel of weeks in the heat and dust, is no name for it. I felt better in more sense than one. It is said that "cleanliness is next to godliness." I more than believe it. Bless the man that invented the bath. How few appreciate the luxury or know its sanitary value. It is healthful, invigorating, delicious. While upon the subject of health, let me take this opportunity of thanking many of your readers,, and especially some of the "sisters from the City of the Saints" for so frequently "administering a cup" of buttermilk "in the name of a disciple" of the French school of savans who have the most sincere faith in the life prolonging virtues of

Lactic Acid.

I "show my faith by my works," and never fast when the occasion offers to drink my fill of it, and advise all others (who would wish to keep the heart from ossifying too early, or prevent the human machinery from prematurely coming to a dead stand-still for want of proper oiling) to go and do likewise."

After this little digression let us turn to some machines, the work of human hands and brains.

Messrs. Hill & Bull,

In the neighborhood of Sheridan, have invented a machine which may be designated as a combined brush and harrow for leveling the meadow in spring time. It is used to smooth down the ant hills and other prominences, thoroughly breaking the clods and at the same time both pulverizing and spreading the manure, enriching the ground, causing the grass to spread, giving a larger and cleaner yield, and capable, with the aid of four horses attached, of putting from 10 to 15 acres in good order in the space of 12 hours.

As it is simple, easily made and not patented, a brief description will be given for the benefit of any that may wish to try it.

Brush and Harrow.

It consists of a front piece of square timber, from 10 to 12 feet in length, four to six inches wide, filled with harrow teeth. To the ends of this are attached to other beams, say 10 feet long, and again there are three cross pieces, running parallel with front beam, through which the brush is interwoven. This done, and the drag for the meadow is prepared for its work.

I noticed a hay "buck" in use here also, which passes from cock to cock, gathering a load and taking the hay to the stack—loading into wagons not being necessary, especially when the distance is short. The "buck" saves much labor and time, in fact only one man being required for the work.

To Make a Hay Buck.

The "buck" requires a piece of timber, four by six inches and from 14 to 16 feet long, with five or six fingers, from two to three feet apart; the center finger seven feet in length, running down on each side to the shortest, two or three feet. Several upright pieces are imbedded into main beams to keep the hay from falling off in the rear.

There is a six-inch board under the fingers and bed piece, for the purpose of pitching the "buck" forward, so as to run under the hay cock; also another of the same width on the top of the fingers, six inches in front of bed piece, fastened with bolts to the fingers, and also other bolts passing through the fingers to bed piece.

It is drawn by a 20-foot rope, each end of which is hooked into staples at each end of the beam. I have been more minute in the description, from the fact that they had not been seen in use elsewhere.

One of Faust's hay loaders had made its appearance in the valley, was attracting considerable attention and, although it had not been fully tested, was thought to be a success.

Nevada Fair.

The Agricultural, Mining and Mechanical Society, of Nevada, are making preparations for their third annual fair, commencing September 11th, and continuing six days. It promises to excel in attractiveness and usefulness all former fairs.

The Central Pacific railroad company will reship free all articles and animals exhibited at the fair from California, freight being paid to the fair. The grounds—85 acres—are nicely fitted up, on the line of the Virginia and Truckee railroad, one and a half miles from Reno, with a mile track. The following are the officers of the society: B. F. Leete, President; W. R. Chamberlain, Vice President; James H. Borland, Secretary; C. T. Bender, Treasurer. K.

Irrigation—No. 4.

[Written for the RURAL PRESS by JOHN M. HORNER.]

Winter Irrigation.

In 1864 I cultivated four acres of my homestead, and wrote the following enigma to a newspaper embodying my results. The date was May 16th, 1865:

> The past 12 months I have taken from four acres of land 32 tons of good hay, and 500 bushels of potatoes; pastured it 30 days, in the months of June and July 1864, and if it had not been pastured, four tons more of excellent hay could have been taken from it. The lot was perfectly bare—clean as a new plowed field 30 days in the months of November and December, and now after all the above mentioned crops have been removed, there is sufficient feed for ten horses one month. Question, how was it done.

The above enigma was never answered. It may now be seen, however, that it was the use of *water* that enabled me to get such a creditable income from a piece of land mainly during the driest year I have ever seen in California, and *that water* was used always *before planting*.

The first crop was wheat hay, the second potatoes, the third barley hay. The three crops well matured and taken from the land within the 12 months.

The hay baled sold for $15 per ton upon the ground and the potatoes for $2 per sack. The net proceeds of the two crops in the one season was about $200 per acre, and it will be seen that the greatest value was in the last crop, which could not have been taken from the land that year without the use of water (and that, too, before the crop was planted), as the water failed soon after I finished planting, as it did in 1864.

While irrigating for the second crop I harvested a respectable crop of squirrels and gophers, for which the county paid me a bounty. A gopher crop is expensive to gather without the use of water.

I have irrigated and raised crops in the manner set forth above almost every year since 1849, but I have given particulars of noted dry years only when the crops failed throughout most of California.

I shall continue to follow this plan of irrigation when I have an opportunity, as summer irrigation has many objections that do not attach to this. Besides summer irrigation is impossible for the want of water in many districts of California.

The third experiment was in 1869. Aiming at a second crop during the year I sowed the land with barley for hay in the winter, and the following June I cut and took from the land an average of four tons of good hay to the acre.

I then commenced to wet the land for the second crop and succeeded in wetting, plowing and planting in good season about 20 acres of potatoes, and gathered therefrom 100 sacks per acre.

Dairying in the Tules.

EDITORS PRESS:—I have often noticed articles in your paper in relating to the tule lands on the San Joaquin and Sacramento rivers, speaking of their great fertility and adaptability to various branches of farming, but I have never noticed any article upholding it as a dairy country.

Now in my opinion—and it is the opinion of all those who have tried it—that its qualifications stand pre-eminent in this branch of farming. Last week hearing that

Mr. N. B. Byrne,

Of Venice island, on the San Joaquin river, was conducting a dairy, I called upon him and was very kindly shown over his place. I was perfectly astonished at the amount and quality of grass I found there, not the coarse swamp grass, but a species of red clover. Red top timothy and the common burr clover.

Mr. Byrne tells me that he found a considerable quantity of these grasses on there before he reclaimed his land, and that since then they have constantly increased. Even the thickest bed of tule will become exterminated by pasturing, and then any kind of grass by simply sowing the seed will usurp its place.

Mr. Byrne is now milking about 40 cows and intends continuing until the first of January. Right here is where I consider the great advantage of this country lies, and that is in

Good Green Fall Feed,

Which will yield a rich flow of milk when all upland grass is dry. Any person can see the advantage of dairying during the fall months, when butter brings the highest price. Mr. Byrne's pasture now looks like the best upland grass during the month of April. There is no sign of its drying up, and he tells me that it continues so until about the first of January, when the native grasses begin to die, but the tame grasses when pastured continue green all winter.

Where else, except in some few favored localities, do such advantages exist? Mr. Byrne has dairied here for two years as an experiment, and now intends going regularly into the business. He intends milking 100 cows next year. He says that many people are kept from bringing cattle in here for fear of getting them drowned. He says that he will not argue the question, but he will state facts that cannot be disputed. He has had 125 head of cattle in here for four years and has never lost one from high water. His cattle have been in good condition winter and summer, and have never been fed a pound of hay. He has dairied here for two years uninterruptedly, and although he had some water on his place last winter and some this summer, still it was not enough to interfere with the dairy. After having passed such an unusual winter for floods as this has been, he says that he feels more encouraged than ever. His

Yard and Corrals

Now are perfectly dry, and look as though there had been no water on them this year.

His facilities for shipping are unsurpassed as the Stockton steamer lands at his place three times a week, receiving the butter in the evening, and with the one handling delivers it in San Francisco early next morning. Freight is very reasonable. He has a first-rate levee around his place kept in good repair.

I also learn that a neighbor of his, General Sherman Day, has also started a dairy, and we wish him every success, for we believe that this is a move in the right direction. I would advise dairymen to give this country some of their attention. Go up and look for themselves and they will certainly be pleased with the prospect. M. J.

San Francisco, August 14, 1876.

Mangold Wurtzel.

EDITORS PRESS:—Mr. Ashburner responded so readily to my last call, that I venture to summon him again through your far reaching columns.

I want to know what object he has in view in sowing his beets so late in the season. It is commonly received that mangolds want a long season of growth to attain perfection, and that plenty of rain during the first two months of growth is most desirable.

Is it to avoid work in hoeing, or to have them keep better during through the winter?

I have a patch shown on June 2d that are looking very well, but the land on which they are sown is permanently moist, and was water logged quite late in the spring.

Then how does Mr. A. dispense with hand hoeing? I find the first hand hoeing when the plants are very small a most tedious operation, and sometimes plant from the thinnings of another patch to avoid so much hoeing.

Finally, how does Mr. A. feed them to his stock, raw or cooked? whole or cut? alone or mixed with other food?

There have been cases here of cows becoming semi-paralyzed by being fed too largely on raw beets in very cold weather. I believe some few died. EDWARD BERWICK.

Monterey, Cal.

Will Mr. Ashburner kindly pursue the subject to meet these points?—EDS. PRESS.

STOCK BREEDERS.

Feeding Cattle for Weight.

A writer for the *Country Gentleman* reports some interesting observations on the gain in weight of fattening cattle. He writes:

In weighing cattle for my neighbors I have more than once found that a steady feed of two or three weeks would show the cattle to have lost in *live* weight in the interval. If weighed the first time in the evening, when they are full of water and food, and the next time soon after being turned out of the stables, they may probably show a difference in weight fully equal to the gain of two week's feeding. I find that cattle, in their habits of eating and drinking, if they are allowed the opportunity, are very regular, and as mine have a running stream in the yard, they drink at regular intervals, and seldom oftener than twice each day. After many trials, I find it best to weigh them as soon as they are turned out in the morning and before they have had access to water, and always be particular to weigh them at this time only.

Running back over my record of weights for a series of years I find that the

Average Gain in Weight

Has been little, if any, more than one and one-half pounds per day, and that the greatest gain has been one and three-quarter pounds per day. Of course some weighings would indicate greater gains, and others less, but by the above averages I alluded to whole year's feeding.

Coleman records much more rapid gains, but I presume they were on oxen or large cattle. One gain mentioned (of two cattle) was 525 pounds in 124 days, or at the rate of 2.16 pounds per head per day. Another pair gained at the rate of 3.14 pounds per head per day, and another at the rate of 3.17 per day, but with the very best of care and feeding I have never been able to exceed 610 pounds in 368 days' feeding, and this on only one steer, who happened to be a growthy, good feeder. From my note book I take the following items relating to my feeding for the season of 1875-76, the cattle being still on hand, with every prospect of remaining until August or September: Purchased October 5th; weight, 1,218 pounds per head; cost. $5.75 per 100 pounds. Turned on good pasture, with soft corn after the first frost; amount gradually increased to three bushels of broken ears, and gradually substituted for it dry meal as the supply of soft corn fell off; hay and good corn fodder *ad libitum* in the yard, and meal gradually increased to eight quarts per day; from one-fifth to one-fourth of the meal (according to the weather) was bran, and the balance pure corn. By January 5th they had reached their highest amount of feed, and averaged 1,424 pounds, showing a gain of 206 pounds in 92 days. In explanation of this gain, I must add that when weighed at the purchase, they were just off a long drive, and without food and water; their condition may be illustrated by the fact that after one night in pasture they had gained 67.7 pounds per head, or 677 pounds on the lot of 10. At this date two smaller steers were added to the lot, reducing the average weight to 1,410 pounds; March 30th they averaged 1,522 pounds, showing a gain of 112 pounds in 85 days, or at the rate of 1.32 pounds per day. Weighed again June 2d they averaged 1,670 pounds, showing a gain of 2 3 pounds per day. It will be noticed that the last interval included the stand-still period usually found just after turning out to grass; last season, during the 27 days between May 8th and June 4th, a lot of smaller cattle showed a gain of 70 pounds, or at the rate of 2 6 pounds per head per day. In both cases the change from the yard to the open pasture was made very gradually and the full feed of meal only discontinued when they refused to eat it up clean.

In Order to Illustrate

The points which I have endeavored to make, I give the following items from my note book: Sept. 5th, 1875, bought 7 head of cattle for $4 75 per 100 pounds; sold them March 5th for $7.25 per 100 pounds; I have them charged with 56 weeks' pasture, at 75 cents per week, $42; 50 bushels soft corn, $12.50. and 7,000 quarts corn meal, $165. First cost, $408, making a total of $727.50 on the debit side, and a credit of $735 as the net proceeds of sale, leaving me $107.50 and the increased value of the manure for my hay, labor and risk. Four others, which up to March 5th were treated in the same manner, were retained, and event-

nally tnrned ont on good psstnre nntil Sept. 23d, when they were sold for $7.75 per 100 pounds. These are chargesble with 70 bushels more meal and 96 weeks more pasture, for which I have a credit of $191 and the increase in the valne of the mannre.

The Loss by Weight in Driving

Is almost inseparably connected with gain in weight and profit, thst a few words on it may not be amiss. A few years ago the cattle driven to the Philadelphia market were nsually purchased at tbe farm, on a basis of tneir dressed or clear beef weight, and it was always a matter of dispute (owing to conflicting interests) between the drover and the farmer as to how much they would "dress per hnndred live weight." Here the item of "drift" always came in to complicate the matter, and it was seldom that the feeder could obtain pay for all the beef his cattle wonld make. Now nearly all the cattle are either purchased and sold by the head, or at a fixed price per pound live weight, weighed upon scales agreed upon by both parties. In making these bargains, it is often the case that the farmer rates this drift at so much per mile. Always when I sell a lot of cattle at their live weight, it has been my cnstom to weigh them at home as well as at the place agreed upon; and I have always found that the drift is nearly as great after a drive of three miles as atter one of double that distance, and that while the actual loss on a greater distance is larger, yet the greatest proportion is during the first two or three miles. On averaging my weights, I find that after *careful* driving for three miles, the loss in weight has been 30 pounds on steers weighing from 1,600 to 1,650 ponnds on my own scales; in one case the drift amounted to 42 pounds per head after a drive of five miles. It mnst be remembered that these fignres represent very nearly the minimnm loss, and that in many cases they may be more than donbled by careless driving or nnnecessary running.

HORTICULTURE.

Fruit Culture in Sutter County.

EDITORS PRESS:—While Sntter county is acknowledged to be one of the best wheat producing counties in the State, it may not be generally known that it is also entitled to a prominent position among the fruit growers. We have many fine orchards and vineyards; some of which cannot be surpassed in the State, either in size or the quality of their prodnctions. The

Briggs' Orchard,

Located ahont a mile from Yuba City, covers an area of 130 acres, and contains, probably, the most valuable assortment of choice fruit trees, of every variety, of any similar institution on the coast. This orchard was started in 1869, 70 acres having been planted the first season, since which time nearly as much more has been added, and it appears to be the intention of its proprietor to keep extending its limits indefinitely; as he has several hundred acres of the best kind of land in reserve for that purpose.

A few days ago I had occasion to visit this orchard, and it presented the appearance of a very

Hive of Industry;

Men were engaged in all the various routine of labor incident to frnit growing, from cultivating the ground to packing fruit. Several men were engaged in paoking peaches and plums for shipment to Colorado. As fast as the fruit was taken from the tree it was bronght to the paoking stands, where it was immediately packed with the greatest care; eaoh plum or peach being wrapped separately in paper, care being taken that none but the best quality of fruit was selected. It required an experienced hand but

Three Minutes to Pack a Box

Of peaches in this manner, and pass them to another man who nailed on the top and marked them

Teams were standing by resdy to receive them, and in less than two hours from the time the fruit was taken from the tree it was stowed away in the cars.

I did not learn how many tons of fruit are shipped from this orchard in a season; bnt some idea of the magnitude of its business may be formed from the fact that as many as 100 men are employed in taking care of fruit in the bnsy season. A good deal of frnit from this orchard is shipped east of the mountains, but the most of it goes to Sacramento and San Francisco.

Mr. Briggs has displayed commendable enterprise in producing early frnit; he has

Three Thousand Early Peach Trees

And about 300 cherry plum trees, from which he has fnrnished the market with fruit as early as the 28th of May, for the last two years. He has several acres of other pesches, of a superior qnality, that keep coming into market every week np to the first of November. There is also

Thirty Acres ot Cherries

That come into market early in the season and command a high price. Besides tbese there is a large lot of pear trees of the Bartlett and Bnerreclairgean varieties, several acres of apricots, plums, quinces, apples and other domestic frnits. A lot of imported fruit trees from Enropean nurseries have been set out, bnt as they are not as yet old enough to besr, all that can be ssid of them is that they are growing well and look healthy. Walnnt trees appear to do remarkably well in this place; some of these trees set ont in 1872 are now in bearing, and others grown from the nut planted in April, 1875, are now over four feet high. This orchard has been remarkably free from disease and insects; nothing of the kind having appeared among the trees since it was first started. The only drawback that has been experienced is from nnnsnal high waters in Feather river, which overflows the most depressed places, and renders the appearance of the ground in those places less neat and attractive than it would otherwise be. But to obviate this difficulty Mr. Briggs intends to

Build a Levee,

This fall, around the entire orchard, at an estimated cost of $8,000.

The resources of this conntry are bnt very imperfectly developed. We have a soil that appears to be inexhanstible, and capable of producing almost everything. But owing to the high price of wheat farmers have devoted attention to that branch of industry to the neglect of all others; but should the price of wheat rule low for a few years the farmers of this oounty, in view of the improved facilities for shipping green fruit to the Atlantic States, would give more attention to cultivation of fruit and other products that would find a ready market at home. M. F. H.

Ynba City, August 14th, 1876.

Transplanting Bearing Orange Trees.

G. W. Marshall, of Sumter county Florida, one of the most experienced and enterprising fruit growers in the State, says the Florida *Agriculturist*, sends the following useful information: I bought a large wild orange grove on Lake Harris, in Sumter county, about six years ago; topped the trees and budded stocks just where they stood. Have been thinning ont these budded trees from year to year, filling up vacant ground left for that purpose. Removed these trees by the old method, *i. e.*, cut around them with a pole axe, cnt tap-root with a chisel, then bent the tree from side to side till all the rootlets were completely gronnd off, and all the large and small roots more or less badly damaged. Have lost half the trees transplanted in this way entailing a heavy strain on my purse and patience. Having about 200 more of these six-year old bearing trees to remove, many of them bearing 800 oranges last crop, I concluded to try a new plan in removing these valuable trees. I wonld state here that I think my new plan a perfect success, and of the greatest importance to parties owning wild groves and who bndded their stumps as they stood and have allowed the buds to become bearing trees, and have yet to remove them. I sent to New York for a stump puller, all complete and ready for work, which cost me there $75, warranted to raise 25,000 ponnds, worked by two men. With this simple but efficient machine I transplanted the whole lot of bearing trees last April, and all of them are thriving now, as any donbting Thomas may see by visiting my grove. I pulled up most of these trees with roots spreading eight feet, all nicely preserved, both roots and rootlets, the latter not even wilted before they were planted in proper holes made for them. I cut back the tops of these trees to correspond with shortened roots, not loosing, however, more than one year's growth of the precious wood, which we all know so well how to appreciate after waiting for it to grow. This machine in the hands of two good men will pull up the largest orange trees in my grove, and that too without cutting a single root before commencing to pull if you so wish it. I use this stump puller to rid my land of all the old stumps of the forest growth, oak, hickory, etc., for which purpose it was intended by the makers, and I consider it a success in that respect also. Will take pleasure in giving details to any of my co-laborers.

THE SWINE YARD.

Feeding Hogs.

The growth and fattening of swine is a very important one in our agriculture. Few specialties afford better profit, and few offer better chance for extension when we consider the vast amount of hog products which are imported from the East each year.

There are many questions in hog economy which are still in much doubt among our swine growers. The comparative value of the different foods which are available here is not generally understood. We call the attention of our readers to these points, and ask them to write us freely of all experiments they have made with feeding and the results therefrom. If our pork makers would use our colnmns for discnssion and comparison of experience as freely as the men in other departments do, we doubt not much valnable information could be drawn out. Write us of your work, your methods and the results obtained.

In this connection we present a careful record of experience with hog feeding, contributed to the *Scientific Farmer* by a Michigan farmer. The value given for the food and the price gained for the pork are quite different from prices here, but the relative results can be seen by comparison. The lists of foods does not contain those chiefly nsed by our fatteners, but we trust the table below will lead some of our readers to figure up more on a California basis and send us the results. The writer says:

In submitting to you the resnlt of my experiment in feeding pigs, I do not claim to have achieved anything remarkable, or to have brought out anything particularly new. It is simply what ordinary farmers can do under ordinary circumstances. My object was to fatten these pigs as qnickly and ss cheaply as possible, and see if it "paid."

I made no attempt to ascertain the number of pounds of each separate variety of feed it would take to make a pound of pork, but fed that which I thonght they would thrive best on. The ground feed they were to have for one day, was carefully weighed into a tub, mixed thoronghly, and from 75 to 85 pounds of boiling water added, and the whole stirred until all the feed was dampened. It was then covered tightly, and stood from twelve to fifteen hours. The pigs were fed as follows:

First, one-third of meal, then whole corn; then balance of meal at two feeds. I aimed to give them each day all they would eat up clean. When any was left, it was taken away and fed at another time. They were daily supplied with fresh water, also a feed of salt and ashes (one or two pounds of the former, and six quarts of the latter), and were given bits of rotten wood and fresh earth occasionally. The pen was warm and dry, and kept scrupulously clean. Fresh bedding was furnished as often as needed. The pigs were bred from a thoroughbred Poland China boar, crossed with our native sows. From the

Table Given Below,

Your readers can draw their own conclusions in regard to which is the best feed, by comparing one week's report with another. Corn was reckoned at 35 cents per bushel (the market price here at the time), which was very much lower in proportion to its intrinsic worth than any other feed used except corn meal, which was fignred from this:

Variety of Feed.	*1st wk*	*2d wk*	*3d wk*	*4th wk*	*5th wk*
Whole corn, dry, lb	307	230	250	210	192
Corn meal	257	270	283	330	384
Coarse middlings		45	100	92	70
Fine middlings	116	39	20		
Mill sweepings	42	186	197	60	50
Am't feed consumed	722	770	830	692	696
Cost of feed consumed..					
No. lbs feed required to make 1 lb of pork	$ 5.26 4.88	$ 5.27 4.37	$ 5.38 5 nel	$ 5.02 4.4	$ 4.91 4.18
Cost of 1 lb pork, cents..	3.55	2.99	3.24	2.93	2.95
Gain ℔ head per week	10 4-7	12 4-7	11 6-7	12 ¼	11 6-7
Total gain ℔ week in lbs.					
Av'ge weight ℔ head at beginn'g	148 162	176 174 4-7	166 186 3-7	171 ½ 198 5-7	166 ½ 210 6-7
Total weight of lot at beginn'g	2120 lbs 2263	2414	2610	2781 ½	2943

From the above table I deduce the following cash account. I calculate the manure to pay me well for the work of caring for them:

	Dr.	Cr.
Feb. 5, Dr. to 14 pigs 2,120 lbs., at 6 cts.	$127.20	
March 15, Dr. to feed for 39 days	28.24	
March 15, Dr. to salt, sulphur and ashes.	1.00	
March 15, Cr. by 14 pigs sold		$200.00
March 15, profit on feeding	43.56	
	$200.00	$200.00

I know this is nothing, comparatively, to what can be accomplished in feeding, yet believe there are many fat hogs taken to market whose account would not give as good a balance as mine have. It must be remembered, however, that the February of 1876 was an unnsually favorable one for feeding. I think if my pigs had been divided into three or four lots, the same feed would have accomplished more.

The highest gain of a single pig in one week was 18 pounds, the lowest four pounds, and from 15 to 17 pounds was reached occasionally, the former frequently.

THE HOG BOUNCER.—The above is the name of a simple device invented by the cattle yard men at West Albany, New York, to induce hogs to move from the oars in which they are transported into the yard. Pigs, as a rule, are not of accomodating dispositions; and when it comes to prevailing upon a oarload of them to move along upon a narrow gangway, the first ones that start upon the plank are apt to decline to proceed further and so block the egress of the rest. This necessitates an astonishing amount of patience and beating, besides unlimited strong langnage, and of oourse often delays a cattle train for some time. The new invention for persnading the animal to pass on is the hog bouncer, made by bringing one end of the gangway plank to a firm support; then nnder the other end, two double car springs are placed. A powerful lever and a spring catch complete the device. Before the car door is opened the platform is carried down so as to compress the springs hy the lever, and the catch is hooked. The hogs are then allowed to pass along the platform, and, so long as they movo along properly the plank is undisturbed; but as soon as a crowd congregates and vociferously objects to going further, the catch is sprung. One end of the platform flies about three feet upward, and the result is a shower of living porkers shot over the heads and npon the soft bodies of the drove. They are seldom injnred, but vastly astonished and it is needless to add that the blockade is at once dispelled. —*Scientific American.*

POULTRY YARD.

M. EYRE, JR., Napa, Cal., Corresponding Editor of this Department.

Aylesbury Ducks.

We extract the following from a very interesting article on duoks, by J. K. Fowler, in *Fanciers' Journal*, as bred in Aylesbnry, England, where very many of the cottagers maintain, each of them, their set of these snow-white beanties:

The breeding stock of a "ducker" who does an average trade consists of six drakes and 20 ducks; these all run together, and the brooks and ponds are looked upon almost as common property. It is a pretty sight to see some hnndreds of them on the river Thames, which winds ronnd and through a part of the old town each with a patch of paint on a certain part of their body the distinctive parts of owuership. They sre separated at night, driven up to their respective homes, well fed and warmly honsed.

Hatching.

The eggs which are laid during the night time are set as soon as possible under large and attentive hens, for which purpose good Dorkings and Cochins are considered best. The ducks themselves are never allowed to sit, though they may desire to do so; the resnlt of this practice is almost certain to prove a failure. Thirteen eggs comprise a sitting, and these are easily covered by a large hen. In the bottom of a cheese box small hamper or fish pad is placed, some lime or wood ashes, and then a rest is made of hay or soft straw on which the hen is set and kept as quiet as possible. Special care is taken to guard against the intrusion of rats or other vermin, by whioh the hen mother may be distnrbed, and, as is often the case, the whole sitting destroyed thereby. The period of incubation is 28 days, and during the last week of that time care must be taken to sprinkle the eggs daily with lukewarm water, which softens the shells, so that when the time comes for the duckling to make its appearance it has not much difficulty in breaking through its covering; this is only an imitation of nature, for in the wild state the parent bird leaves her nest in the early morning when the grass is covered with dew, and as she seeks her food her feathers become well moistened, and returning to her eggs, she imparts to them that moisture which we, by artificial means, are obliged to give. When the young are hatched, they should be left with the hen till well nestled, well dried, and strong enough to stand; many scores of ducklings are lost by inexperienoed persons through their impatience to remove them from the nost. The little duckling is at first clad with soft yellow down, which gradually disappears as the feathers grow. After a few days, three or four broods are put together with one hen, which is quite able to take care of them all.

For Market Purposes,

The treatment of the dnckling is as follows: They are not allowed to go into any water, but are kept in hovels or the rooms of oottages, each lot of thirty or forty separated by low boards; it is no unoommon thing to see two or three thousand all in one establishment. They are kept very cleau and dry on barley straw; their food consists of hard-boiled eggs, chopped fine, and mixed with boiled rice and bullook's liver, cut up small. This is given to them several times in the day, for about a fortnight or more. When they are capable of consuming more, they are fed on barleymeal and tallow greaves, mixed together with the water in which the greaves have previously been boiled. To produce birds of great frame and weight, the same food is given during the earliest stage, but after abont three weeks they are allowed to go to the water, and their food is varied as soon as possible, by giving them maize and barley alternately, when they can eat the same. They should be fed three times a day; and always have a trough of water by them, and it is an advantage to have some gravel or sand at the bottom, so that, when drinking, they also get hold of some grit, whioh helps digestion.

The above constitutes all that is necessary to produce early ducklings for the table or the market.

Between the

Drake and Duck

There is is no difference, exoept that the male bird has one or two beautifully ourled feathers in his tail, and is larger than his mate. When the birds are very young, it is not easy to distingnish the sex, for the drake's feathers are not developed till they have once moulted. The question, however, can be solved by noting the difference in the cry, which in the duck is a loud "quack, quack," whilst the drake makes a mnch fainter and not so distinct a noise.

First-rate prize birds, when well fatted, will reach ten ponnds, bnt that weight is seldom obtained even by the best specimens exhibited at Birmingham. I consider seven pounds, at twelve months old, almost beyond the average.

WOUNDS.—The leaves of geraniums are an excellent application for cnts when the skin is rnbbed off, and other wounds of the same kind. One or two leaves mnst be bruised and applied on linen to the part, and the wonnd will become cicatrized in a veryshort time.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Copies of the Constitution and By-Laws of the National, State and Subordinate Granges, containing the latest amendments, are now priuted and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

P. of H.—Subscribers who pay fully one year ($1) in advance for the Pacific Rural Press can receive the California Patron *free*, or other premiums. See our premium list in another column.

Grange Directory.—A full list of Subordinate Granges, Masters and Secretaries, of California and Nevada, is published as often as once a quarter in this department. See issue of July 8th for latest insertion.

Grangers' Rally at Vacaville.

Editors Press:—In pursuance to a kindly invitation from the members of Vacaville Grange, Bro. Amos Adams and myself as a substitute for Bro. J. V. Webster, found ourselves on the Railroad steamer *New World*, on Sturday morning last, bound for that paradise of fruit-growers; and arrived there at 11 A. M. Arriving at the Vacaville depot we looked in vain for the familiar face of some one of our noble brotherhood, and accepted the invitatiou of an accommodating young man to take us to the hotel. On being set down at Wilson's hotel, we again looked around for Graugers, and were beginning to think that there were none around, when the stately form of Bro. Sims, of Buckeye Grange, at Winter's hove in sight. After a good hand shaking we followed him to the hall where the Grangers were congregating from all quarters of the valley, and where we met with a most cordial reception. Among the visitors present we were delighted to find Bro. and Sister J. A. Clark, W. M., of Elmira Grange; the mauy pleasant associations counected with our Napa State Grauge meeting were recalled to mind.

The hall was well filled, when W. M. Williams called the Grange to order. After some preliminary business the Grange proceeded to confer the degree of Laborer npon a young man, the son of a worthy brother. The manner in which this ceremony was performed showed that they needed practice in their work. A recess was then declared and the large assemblage proceeded to discuss the bountiful and elegant lnnch provided by the good sisters of the Grange. Bro. Webster had warned us that the chickens roosted very high about Vacaville, but we think he was mistaken, unless they came down for this special occasion; or else the Sisters hearing that Bro. W. was to be there had provided an extra allowance. Being there as the substitute of the W. M., I had to do justice to "them fowls," as he would have done, had he, himself been present. One festure of this fine lunch was the luscious and beautiful frnit provided for the occasion.

Discussion.

After lunch the Grange was called to order by the Worthy Master, and Brother Amos Adams, the gentleman who so well and acceptably fills the arduous position of Secretary of the State Grange was called upon to address the assembled Patrons, which he did in his able and matter-of-fact manner, answering all the questions propounded to him, explaining others, and drawing liberally from his large fund of nsefnl information. The management of the Grangers' Bank and Business Association drew ont an interesting debate, after which being called npon we indulged in a little off hand talk. The lateness of the hour prevented Brother Sims from giving vent to his eloqnence, he asking to be excused, and thus the labors of the day were closed.

From our observations we are satisfied that

No Better Field for Co Operation

And Grange work exists in California than ahont Vacaville; and we hope to see the day when the farmers and fruit growers of that part of Solano county will be nnited in one grand and successfnl co-operative association. They certainly possess the means and the intelligence to undertake such an enterprise. It is our only road to success, and is no longer an experiment, but an accomplished fact. Co-operation in business is uow the question of vital importance to the Patrons of the State. Will they give this snbject their undivided attention, and by a multitude of counsel prepare the way to futnre prosperity?

Brother Adams having accepted the invitation of Brother Dobbins to pass the night at his elegant and comfortable mansion, we were taken in charge by Brother and Sister Clark and very hospitably and pleasantly entertained by them.

Sunday morning, at 7 o'clock, Bro. Clark presented himself at the gate, and with him, holding the reins over a splendid span of horses, we started out to do

Pleasant Valley,

The early garden spot of California. We regret that want of space prevents us from going into details of its many beauties, its extensive orchards and vineyards; the day will come when the whole valley will be one continuous orchard and vineyard; that will be, when having obtained an outlet and market for our fruit, its growers will be more generously rewarded for their labors than they are now.

At 9 o'clock we srrived at the house of Bro. Decker, one of the largest fruit raisers in the valley, and had the pleasure of examining his fine orchard and vineyard. Here is an example of what a persevering and industrious man may accomplish. Bro. Decker informs us that himself and brother pre-empted a quarter section of Government land, and did not have a dollar besides. Now, by their industry, they have transformed that wild land into a paradise. Large orchards and vineyards, by assiduous care in their cultivation and selection of varieties, are now yielding immense crops of the choicest fruits. We were shown one fig tree from which $55 worth of figs had been taken this season. Bro. Decker losded us with two boxes of his choicest fruits for the "dear ones at home," for which kind reminder they are duly grateful.

Hills for Orchards.

One thing has been demonstrated in this valley, that the hills, heretofore considered of no other value than for the scanty pasture they afford, can, with proper culture, be converted into the finest orchards and vineyards; the trees growing better on the hillsides than on the flat lands of the valley. On our return to Vacaville, and when on the top of a hill, we had a beautifnl view of the extensive plain before us. It is now one vast stubble field, dotted with green spots, which indicate the dwellings and homes of the tillers of the soil.

We returned to Bro. Clark'a, having enjoyed a very pleasant ride among the orchards and vineyards of Pleasant valley, and only regretted that our time did not allow us a more exteuded visit.

In the afternoon we visited the Sunday school at Elmira, under the superintendence of Bro. Frazer, and at the conclusion of its exercises took the cars for San Francisco, where we arrived safely and deeply gratefnl to the brothers and sisters who had kindly done so much for our comfort and pleasure while among them. T. H. Merry, State Deputy.

Letter From a Sister at Lodi.

Editors Press:—This morning as I was just putting up my last jars of currants, for this season, I thought how weary and tired I was of this constant and continual sound of duty. Just then my "better half" entered the kitchen, and I remarked, as he complimented my currants, "how agreeable some change would be." He asked me in what way. I smiled and answered, "if I could only write a letter to the Rural" (feeling at the same time my utter inability to do so). Said he, 'you can try." So with those words of encouragement, and your ott repeated invitations to the ladies to contribute their mite, I gave the jars an extra turn, and,

Washing the Dishes,

I find myaelf seated at my writing desk, for a few momeuts, and wondered if any of our sisters think how much time is passed in making those household indispensables clean? I guess if some of the men had those dishes to wash one thousand and ninety-five times during the year, and perhaps for a long lifetime, some geuius would have invented a process to make that part of housework easier, or, they would manage to dispense with the endless array of side dishes that must surround their plates at every meal. It really seems to me the moment I begin to think of cooking the dishes begin to accumulate, and I can never do a morning's baking without using the very last cooking ntensil in my pantry. I often wish when we have headers and threshers, that I had a few more articles of earthen ware, but when the washing of them comes, always wish I had a few less. The other day when my husband returned from town, he brought home two filters, and remarked "they were very nice for tea and coffee, especially the latter," little thinking they would add to my delightful occupation, dish-washing. Now, I do not wish to boast, but I rarely have ricy coffee, and if some mornings he imagines it is not quite as clear as crystal, he will drink four and five cups, and I have known him to pass his cup the sixth time. Now, Mr. Editor, I wish to ask yon which yon think the more riley of the two, my husband's nature or the coffee?

You will be pleased to learn that

Lodi Grange

Is still living and flourishing. To be sure we do not number quite as many as the first year after we organized, for some have moved away and taken dimits, but all remaining are composed of good material, ever ready and willing to work for the good of the Order. Our Worthy Master, J. M. Fowler, has always been an efficient, zealous worker, consequently proves himself a good officer; and with a critic in the Worthy Overseer's chair, whose ever keen and watchful eyes are upon us, there is but little doubt but that we shall continue to prosper.

I think we all have reason to bless the day when Granges were introduced, if for nothing more than the sociability part of it. How we sisters anticipate seeing each other and relating over our joys and sorrows, successes or failures, and in feeling united overcome many little difficulties, and always feel when we separate that the time has been passed pleasantly and profitably. Among those that left us was our esteemed ex-secretary, Sister Nellie Crouch, who now resides in Oakland for the benefit and advantage of her children. She has recently united with Temescal Grange, (and I would here congratnlate that Grange on its valuable acqnisition) where she will continne the good work so earnestly began with us. It is probably remembered that through her exertions, assisted by the sisters, in compiling a receipt book, our Grange was the recipient of a handsome organ, which is skillfully played by our accomplished organist, Sister Ayers, and with her excellent choir of singers adds very much to the sociability of the Order. I would here say that I have been informed by the Secretary of Lodi Grange, that there are a few more copies of "The California Grangers' Domestic Guide," which are selling at the redneed price of 25 cents each, and who among us have not seen the time when we would have given that small sum for a single reliable rnle? Particularly if we expected a visit from our mother-in-law; and would advise all my young friends who contemplate keeping house to send and procure a copy.

Our Prospects

For a large crop last winter were certainly of the most encouraging character, owing to the plentiful snpply of rain that fell copiously from month to month. Many a wife's heart beat high with hope, thinking she had denied herself of this or that comfort, and that when this year's crop would be harvested, and the debts all paid, her fond anticipipations would be realized. Some had their hearts set upon a new carpet, or a new piece of furniture, others upon a new hat, for some have worn their old ones (with slight alterations) for several years, or the children some long promised favor. But, alas, "all is not gold that glitters!" For when our large stacks were thrashed they fell far short of the estimation, and at the present low prices we will have to be content with such as we have. There are, of course, exceptions. Our Worthy Past Master Parrott's grain yielded beyond his expectations. On 185 acres he had forty-two hundred bushels, and I am told he feels so good and comfortable over it that he will soon start for the Centennial, and his native home.

And now, last but not least, a word for our

Valued "Rural Press."

Why, it almost seems as if I could not keep house without it; and I always hasten through with the supper dishes on Friday evenings, in order to pass the whole time in reading its useful and always interesting columns. First comes the Grange page, then the Home Circle, and so on; and our little daughter often asks, "mamma, are there any nice pieces for me to speak in the children's column?"

Minnie Myrtle.

Stanislaus Pomona Grange.

Editors Press:—Stanislaus Pomona Grange met at Grange Hall, Modesto, on the 17th inst., to take into consideration the interests of the wheat growers in this section, and to take whatever action was deemed necessary in furtherance of the same.

Bro. J. P. Vincent, of Salida, and Bro. Garrison Turner, of the Modesto Grange Company, were present, and, at the request of members, gave many facts and figures of general interest to wheat growers.

A list of proposed shippers was obtained, which included most of the members present.

The Masters of Stanislaus and Ceres Granges reported their members as still deliberating and waiting for such information as would enable each to estimate the advantages of shipping.

The followiug is a copy of a resolution passed by the Grange:

Resolved, That we endorse the plan proposed of the shipment of wheat as expressed in the resolution of the wheat growers' convention, held in San Francisco, July 25th and 26th, 1876, and recommend that immediate action be taken in regard to the same by Patrons of Husbandry in our county.

Adjourned to meet on the first Thursday in November next, at 11 o'clock, A. M.

Vital E. Bangs, Sec'y.

The Grangers and the Fruit Display.—We note on another page the movement in progress to secure a fitting display of California fruit at the Centennial special exhibit of September 9th. A committee has been appointed by the gentlemen who have the matter in charge to visit the fruit regions and urge the contribntion of the best fruit for transmission across the continent. We understand that the State Secretary, Amos Adams, will go to Sacramento, W. B. West to Vacaville, J. D. Blanchar will go to San Jose, J. Lewelling to Napa, and perhaps others to other places. Two cars of the fruit shipping company will start eastward August 29th, and it is to be hoped that they may be filled to overflowing with the best frnit of the State.

Petaluma Grange.—Petaluma Grange at a meeting held August 12th resolved to hold meetings hereafter on the second Saturday and fourth Thnrsday of each month at 11 A. M. Some of the members observe the seventh day in their religious beliefs and the change of one meeting a month is made to favor them.

Wheat Discussion by Napa Grange.

Pursuant to a call by the Napa Grange a meeting of farmers was held at Good Templars' hall, Saturday afternoon, to discuss the wheat question, with reference to the disposal of the crop. About 25 of the solid farmers of this section and a number of ladies responded to the call; and Messrs. Costigan and Blanchar of San Francisco were in attendance. The meeting was called to order by M. Eyre, and J. M. Thompson chosen chairman. The object of the meeting being stated, Mr. Costigan, assistant manager of the Grangers' Business Association was called upon, and he gave a detailed account of the wheat situation, with refereuce to the policy of the Grangers shipping it themselves. He said that the price of wheat in California is governed by the price in England, and the price in England by the home crop. Owing to the drop in the price in the English market, and to the speculators here having previously engaged a large amount of shipping at a high figure, Mr. Costigan said that the speculators could not pay more than $1.40 or $1.45 for wheat—a proposition which he demonstrated by fignres. He then proceeded to show that by shipping it themselves through the Grangers' Business Association, they might confidently expect to realize a much better price. He said that one ship was about to be loaded by the Association. He wonld not take the responsibility of advising farmers; but his remarks were clearly in favor of the wheat growers shipping their wheat through the Business Association, instead of letting the speculators have it.

M. Eyre made an earnest plea in favor of the Grange, and exhorted the members to stand by it and co-operate with each other in protecting their interests. He predicted the benefits to be derived from so doing in forcible language.

Mr. Blanchar of San Francisco, manager of the Grangers' Insurance Company, showed the benefits to be derived from carrying ont the principles of the order, and by the concentration of the wheat. He said that Friedlander gets, on an average, four bits a ton for all the wheat that goes through his hands. Estimating their wheat crop at the low figure of 500,000 tons this year, the growers could get a capital of $250,000 by letting the wheat go through their houses rather than through Friedlander's, and by continuing this policy could break the power of the speculators. He believed that the growers could realize from $1 to $1 50 more per ton for their wheat by concentrating it in this way. Mr Blanchar also spoke encouragingly of the shipment of fruit by the growers, and spoke of the success met with in Philadelphia.

No action was taken in the matter of shipping wheat; but there was a general expression in favor of shipping a portion of the crop through the Grangers' Business Association. —*Napa Register, August 14th.*

The Grangers' Wheat Movement.

Pursuant to announcement the second meeting of wheat growers, under the auspices of Golden Gate Grange, was held on Tuesday evening, August 22d. There were 75 wheat growers from various parts of the State in attendance.

The feeling was good and the interest active. The general sentiment was that the Grangers' movement was on the right track, and that the best thing to do was to go on and ship the wheat as proposed in the first meeting. The *Dryad*, the Grangers' first ship for the year, is nearly loaded, and will get quick despatch. Enough grain was pledged at the meeting on Tuesday night to load another ship, and another ship will be chartered if favorable rates can be obtained.

Another meeting of wheat growers will be held in this city, on Tuesday, September 12th, and it is proposed to continue the meetings during the shipping season.

We are requested to state by the Master of Golden Gate Grange, that although delegations from the Granges are welcomed, it is urged that aside from Grange action the wheat growing members of the Order take up the matter as an individual concern, and attend the meetings themselves without waiting for the formality of delegation.

A Word to Delegates to the next State Grange.—Prepare and consider with care before leaving home, all the matter you wish to present to the State Grange for consideration; put in writing that which you wish to have form a part of the record of the proceedings; prepare yourselves with five minute speeches to enforce the passage of the matters you may present. In this way business will be expedited, and delegates will acqnit themselves more to the satisfaction of themselves and constituents.

Some misapprehension exists in regard to the true meaning of a resolution passed by the Executive Committee. We repeat, that all expenses incurred by delegates in traveling over 200 miles in coming to and going from the meeting, will be paid out of the State Grange treasury. For instance, a delegate living even 100 miles from San Francisco will not be entitled to mileage. The one who lives 150 miles will be entitled to traveling expenses for 100 miles, and so on.

Two Rock Grange.—We are informed that at the last regular meeting of Two Rock Grange, Sonoma county, Sister A. A. Wooden resigned the office of Secretary and J. C. Purvine was elected to serve the rest of the year.

Agricultural Notes.

California.

ALAMEDA.

Grain Storing.—Livermore *Enterprise*, Aug. 19: All the warehouses are filling up rapidly with wheat and barley. Storage is in big demand in consequence of the depressed state of the markets. M. Waterman is taking in from 1,500 to 2,000 sacks per day. Anspacher Brothers are not less busy. Their hay warehouse has already 200 tons in. A. J. McLeod has purchased and shipped off 10,000 centals wheat. Stevens & Wilkinson have in warehouse 28,783 centals wheat, 5,900 centals barley, and have shipped about 3,000 centals. The best offer for parcels of wheat at present is $1.43 at Livermore, barley .85 to .87½

More Separators Needed.—The demand for "separator" machines in Livermore exceeds the supply this season. Small farmers are anxious to get their grain into sacks and know the result of the year's crop. Those near town are generally the first to be served, so the outsiders are kept in waiting until the machine comes round. This delay might cause a loss to some of the farmers when the grain market is bright. At present, however, those who are latest getting in their produce will likely fare the best. The impression is general that prices will improve by about September.

Not Half a Crop.—Disappointment in the quantity of grain to the acre this season is everywhere expressed. Appearances have been unusually deceiving in regard to the ranches through the valley. In place of 15 or 20 sacks of wheat per acre, the reports to the present indicate an average of not over ten. The only attributable cause to account for this great deficiency, is the sudden change of weather while the crops were ripening, the scorching heat in the early part of the season, and the heavy winds which have swept over the hill and down the valley, have no doubt had their effect, and diminished the yield.

BUTTE.

A Surprise.—Chico *Enterprise*: M. Kendrick, who has a fine ranch out on the plains of Colusa county, about 15 miles west from Chico, met with a most agreeable disappointment in harvesting his grain. He made all his calculations as to the probable yield of his crop and purchased his sacks based upon a liberal estimate, but his surprise can best be imagined when he came to harvest, that his grain turned out so well and so far beyond his calculations that he was compelled to provide 2,000 sacks more than he had already purchased.

COLUSA.

Fire.—*Sun*, Aug. 19: On Friday of last week a fire caught from McCarger's engine engaged in threshing grain on Deveney's farm, on the Walsh place, and was not extinguished until it had destroyed 25 stacks for Deveney, and 400 acres of standing grain for Pike Gupton. There was also quite an amount of fence burned. The loss to Deveney is between two and three thousand dollars, and to Gupton between six and seven thousand. They got out a reaper and a horse-rake followed by a gang plow and then pressed against the main fire, to get it out. It would have been terrible if it had occurred the day before when the north wind was blowing a gale.

Drowned.—*Independent*, Aug. 19: We received information by telegraph line, from Princeton, Tuesday, the 15th inst., that Bob Smith, better known as the champion sack-sewer, while in bathing this morning, was drowned.

Stony Creek.—Down the foothills toward Kanahwa, and one can but look forward a few years with prophetic eye to the time when these low foothills will be the great fruit orchards of the country. From these hills one of the most magnificent views imaginable lays spread out before the wayfarer. One unbroken field of wheat 75 to 100 miles in circumference, thickly studded with stacks which seem to diminish in size but increase in number as far as the eye can reach. It is impossible to guess at the amount of wheat there will be in this great basin. The people of this upper section are sorely disappointed at the failure of the railroad to reach them this season, and well they may be. It is an herculean task to haul all that wheat to the river and bank it for shipment. The farmers would have paid the company almost enough, either in clear cash or increased freight, to have extended the road to Stony creek. It is our opinion that the road could still get thousands and thousands of dollars subscribed provided the company would agree to put the road through to Stony creek by the middle of September or first of October.

CONTRA COSTA.

Unclean Wheat.—Antioch *Ledger*, Aug. 12: There is unusual complaint by buyers this season that the wheat in this vicinity is badly mixed with oats, grass, seeds and other waste matter. Many lots are not bringing even the low market price by reason of this uncleanness. Several reasons have been assigned as the cause of this, some alleging it to be the excessive rains, others that it is produced by summer fallowing, etc.; but as neither of these causes have produced like results elsewhere, we incline to the belief that it may be found in the fact that farmers do not change their seed. They sow of the wheat produced on the same land each succeeding year, which may produce the result complained of. Farmers should be careful to select the best of seed, and experience proves a change in the variety used is beneficial. We have been informed by practical farmers that to sow upland wheat on Sherman island, and vice versa, will produce a better quality of grain than to re-sow grain grown on the same soil. Continuous sowing of the same seed on the same ground, says the Contra Costa *Gazette*, will doubtless have a tendency to ultimately deteriorate the products; but the change of seed alone could hardly be expected to cure the evil above complained of. The remedy in this case, we imagine, is to be sought in the direction of cleaner cultivation, or close pasturing, to destroy foul growths upon the ground, and in use of well cleaned seed. No change of seed, however frequent, can be expected to give a clean product from dry sown, foul, summer fallow or stubble ground; and with the best care in preparing ground for broad cast sown grain crops it is difficult to prevent it becoming foul in years of cropping without rotation or rest. Nature resents all our irrational efforts to get advantage of her, and will oblige us to improve our practices of husbandry.

LAKE.

The Reign of Weeds.—Bachelor Valley Cor. Lake *Bee*: The smallness of the grain crop is bountifully made up by an increased crop of weeds. And in this crop we find our variety. We farmers are well content to plant only the same old stand-bys year after year—wheat, barley and corn—till our lands are exhausted. But when the weed crop comes, then we have variety. Our sunflowers are excellent; in many places I suppose they are from five to six feet high. Spanish clover and "stickers" seem to have taken possession of some fields, and it is really very doubtful if they would fall down if mowed. But our main crop is of those well known staples, "cockle burrs." So much do we prize them, that one farmer has on his place several acres planted to them, and has raised a succession of volunteer crops for several years. Many of the others, however, nearer the lake, who get the benefit of their crops, would prefer to plant their own seed. Some of them would like to dispense with the crop of burrs occasionally, but every rain in winter washes down a new supply. Both the weeds and the squirrels have got to be a serious damage and an infernal pest. In some counties of the State there are laws compelling the destruction of both. Have we any such here? If not, there should be. Enterprising farmers dislike this state of things, but what can any one or two or a dozen, do against so many? The damage from these two causes—weeds and squirrels—cannot be less than $1,000 per year in this valley alone, and yet we sit still and do nothing.

MARIN.

Hicks' Valley.—Petaluma *Argus*, Aug. 18: Hicks' valley is situated in Marin county, eight miles southwest of Petaluma, and is about three miles long by two miles wide. Dairying is the principal pursuit of the inhabitants, and the productions of the valley in the order of their importance are butter, cheese, hogs, beef cattle and vegetables. Of the latter nearly all that are used by the inhabitants are produced in the valley. About half of the valley is owned by J. McBrown, who has long been a resident of that section, and is a large landholder in Marin county. The other resident landowners of the valley are Adam Davidson, Henry Davidson, J. A. Thompson, Byron Davidson, H. A. Heineken and L. Pedrazzinni. Those who occupy rented places are Charles Campili, Joseph Dodson, B. Hallin, Peter Bernardasa and Mr. Richardson. A public school was established in the valley three years ago, of which the trustees are J. A. Thompson, J. McBrown and L. Pedrazzinni. Miss Fannie Smith is teacher. The average attendance is about 16. Grass starts earlier in this valley than in most parts of Marin county. The dairy cows are as good as those of any other section in this part of the State. Corn and potatoes grow quite well, and fruit growing has been successful so far as it has been tried.

MONTEREY.

The Fair.—*Democrat*, Aug. 19: The Monterey fair association had a good meeting Thursday afternoon, most of its active members being present. Statements were made showing the present condition of the affairs of the society, and demonstrating the necessity of meeting certain liabilities now existing against it. It was shown that the society had expended upon the fair grounds about $6,500, of which $3,000 are in arrears and must be provided for, and, by the terms of the donation from Sherwood and the deed from the city, that it is absolutely necessary to hold a fair the coming fall. For the objects in view it was estimated that nearly $5,000 were presently required, and it was agreed that the best mode of raising such sum was in the shape of loans to the society on two years' time, bearing 10 per cent., in such amounts as should be convenient to contributors. Members present signed a paper pledging themselves in amounts varying from $100 to $500, and aggregating $2,550, and a committee was appointed to solicit similar aid.

Potato Blight.—Our potato fields have been stricken with the blight. On the Cooper rancho the plant disease has appeared in many places, and a few large patches have been turned black by its scorching influence. The disease first shows itself on the leaf, in a small black spot like an ink stain, gradually extending over the whole plant, and usually over entire fields. It is to be noted that the red potato appears more susceptible of this vegetative derangement than the white, and that the "Jersey Blue" variety seems almost wholly exempt. Side by side with other varieties, its escape has been almost complete. The similarity of the disease to grain rust renders it probable that it is some sort of parasitic fungus that does the mischievous work.

SAN DIEGO.

Cajon Crops.—*Union*, Aug. 17: On the Cajon the farmers are beginning to count the results of the season. Hill & Sanford have just finished threshing. They have 9,000 sacks of wheat and 1,200 sacks of barley. We are informed that the average wheat yield throughout the Cajon valley this season is 18 bushels to the acre. The average yield of barley is 35 to 40 bushels per acre. The weather in the valley is pretty warm, the thermometer marking up to 92 every day, but the nights are cool and pleasant.

SANTA BARBARA.

Guadalupe.—*Telegraph*, Aug. 12: The threshing season is now at its hight in this valley, and our farmers are busy from morning till night. Sacks are in demand, and the cry is—"more straw!" There are 11 threshing machines at work in the valley. The grain yield will be heavier than it has been for many years past.

SAN JOAQUIN.

A Phenomenon.—Stockton *Independent*, Aug. 19: Curiosities and strange freaks of nature in the vegetable as well as in the animal kingdom are of frequent occurrence, but we remember of seeing none more curious than a branch of a peach tree shown us yesterday by Mr. Hohenshell, a farmer living three miles north of Stockton, on which were a ripe peach and a ripe nectarine, side by side. The peach was a cling-stone, large, whitish colored, and covered with a heavy down. The nectarine was of the usual size of that fruit, smaller than the peach, and of a reddish purple color, and perfectly smooth—in fact an unmistakable nectarine. The tree on which this singular phenomenon occurred grew in an orchard on the Cherokee Lane road, about six or eight miles from town; and what is more remarkable about it is, that no nectarine or apricot trees grow on the place or near it. It is possible that the pollen from a plum tree might have fructified the peach blossom and produced the result, as the nectarine is a cross between the peach and the plum, but we never heard of the attempt to produce a nectarine having been successfully accomplished in that way, as the usual process is by engrafting. Will some horticulturist enlighten us as to the possibilities and probabilities of the cause of the phenomenon?

The San Joaquin Fair.—There is every reason to expect at the coming fair to be given in this city the latter part of next month, not only a very creditable display in the agricultural, horticultural, mechanical, and live-stock departments, but a more interesting series of races than we have ever seen over the track.

SAN LUIS OBISPO.

Threshing.—*Tribune*, Aug. 19: In a day and a half, being half of Wednesday and the whole of Thursday, August 2d and 3d, the steam straw-burning thresher of Irvine Johnson, Esq., threshed 1,600 sacks of barley for Mr. A. J. Triplett, of Guadalupe. This is the best work we have heard of this season. The barley yielded at the rate of 70 bushels to the acre, and the treshing was at the rate of 2,000 bushels per day. This, we think, will be admitted as first-class. A son of Mr. Triplett had wheat which turned out, for market, 46 bushels to the acre.

SONOMA.

Sale of Durham Cattle.—*Democrat*, Aug. 19: The sale of Durham cattle by Dr. D. M. Bemus, in this city, on Tuesday, was not as largely attended as we expected, nor did the stock bring such prices as we thought. All the cattle sold were thoroughbred, and had been bred with a special view to milking qualities. There were present about 60 or 70 gentlemen, mostly from the vicinity of Santa Rosa. There were 30 head sold, over half of them being calves and yearlings. The aggregate amount of the sales was between $1,100 and $1,200, making an average of nearly $40.

Almonds and Plums.—*Russian River Flag*, Aug. 17: I. G. Burgess, of Healdsburg, four years ago purchased three acres of hill land lying just within the northern limits of the city. He set out the first year 80 soft-shell almond trees, which grew exceedingly vigorous, and bore in the second year 200 pounds of nuts; these he sold at 20 cents per pound, which brought a yield of 50 cents to the tree. However, the ordinary price for almonds is from 15 to 18 cents per pound. Mr. Burgess has found one drawback to almond culture here, viz.: the trees occasionally fail to produce full crops. To offset this, however, he has concluded to graft plums amongst the branches of his almond trees, so that when his almonds fail, he will at least have a paying crop, as plums never fail.

A Large Alfalfa Story.—*Democrat*, Aug. 19: A farmer in this vicinity fenced off 35 acres of alfalfa, which has been sown two years ago, and in the spring of 1875 put 3,000 head of sheep upon it, keeping them there a month. They ate the field pretty bare and were removed at the end of that time and put back again after the lapse of four weeks, remaining three weeks longer. The grass was then allowed to go to seed, when a large band of lambs were put upon it and kept there until the rainy season set in, when they were taken away, and the pasture remained unmolested until the following June, when two tons to the acre of alfalfa hay were cut, averaging six and a half feet long. He estimates that an acre of alfalfa will keep 120 sheep the year round.

TULARE.

A Wooden Track.—A wooden track railroad is in successful operation for a distance of four and a half miles on the North Tule river, and is used to transport hogs, etc., to Dillon's Mills, situated 25 miles from Porterville. The track is built of yellow-pine rails, five inches square, resting upon ties placed five feet apart, and capped with iron plates two by five inches. The loaded cars run by gravity, and mules are employed to draw back the empty ones. The grade is over 1000 feet to the mile, the highest summit on the road being at an altitude of 6000 feet.

Tropical Fruits.—*Delta*, Aug. 17: Some day, perhaps not far off, Tulare county will, there is little doubt, produce her own oranges, limes, and some other tropical fruits; and as little will be thought of it then as of raising figs and grapes now. We saw, a few days since, at Mr. Bahwell's place in town a number of young tropical trees in bearing for their first season. One orange tree exhibited very large fruit, though still unmatured. One of the oranges measured 13½ inches in circumference, and a number of them on the same tree are of nearly the same size. He has several trees of the Mandarin variety which promise well, though as yet the fruit is small. These trees are of a dwarf variety, and early bearers. The fruit is now about the size of a walnut, and the trees are yet in bloom, shedding a luxurious fragrance on the evening air. We noticed one or two lime and citron trees in bearing. Considering that these trees are the third season from their setting, we think their culture promises well, and that the experiments of Mr. Bahwell are likely to prove of value to others, who may profit by his amateur experiments.

VENTURA.

An Agricultural Sermon.—Hueneme Cor. Ventura *Free Press*.—Owing to the low price of barley this season, many of the more thrifty and well-to-do farmers on this side of the Santa Clara river have erected granaries on their premises and purpose storing their grain until they can realize something for their labor. This is a movement in the right direction. I wonder that our farmers have so long pursued the old order of things. The credit system is undoubtedly the chief cause of the early sale of produce in this valley and the consequent small profit to the farmer. There is no State in the Union where the credit system is carried on so extensively as in California and there is no system of trade so pernicious to all parties concerned. It is not to be expected that the merchant can sell as cheaply on nine months' or a year's credit as he can for cash; hence, the farmer who buys on time is not only compelled to sell his grain early in the season, and thereby lose the customary rise that we usually have three or four months later, but he must needs pay from ten to fifteen per cent. more for his goods in order to compensate the merchant for the interest on his account and the usual number of bad debts. Until our farmers free themselves from the thralldom of debt they need not expect independence nor any better usage than they have heretofore received. But the question that most farmers will ask is: "How are we to get out of debt and procure the necessary means to carry us through another season?" I answer "retrenchment and reform" must be the text for a few years. Californians are proverbially the most lavish in their expenditures of any people in the world. No Eastern farmer would think of spending his money so improvidently as ours do. Why, there are scores of farmers in our own valley who, from year to year, purchase their bacon, potatoes, beans and butter from the merchants, instead of having a surplus of those articles for sale, to say nothing of the tons of vegetables that find a ready market among the poorest class of the farming community. These are undeniable facts that the farmers cannot gainsay; and, until there is a radical reform inaugurated right here, they need not expect anything but empty purses and hard times. We are glad, however, to note an improvement in this respect among many of our country friends and we trust that others may follow the example set by their most prosperous neighbor, until all may know and feel what it is to be "an independent farmer."

Arizona.

A Disgusted Californian.—H. C. Banta, of Banta's station, writes to the Stockton *Independent* from Little Colorado river, Arizona, giving some information in regard to the adaptability of that country for sheep raising. He says the grass is not suitable for sheep, having no juice in it for the nourishment of the sheep; the country is a wilderness of rocks and mountains and there is no water in it except at the streams, which are far apart and have but little water. Furthermore, it is a very hard route to go there from California, there being an interval of 200 miles where there is no grass to speak of and but little water. There is a poison which he does not describe, but which is very fatal to sheep and which swept off a large number of his flock. He thinks California is a paradise compared with Arizona; advises Californians who contemplate taking a trip to that country to stay where they are; says he will return soon, and seems altogether to be thoroughly disgusted. He adds that he has not seen a sheepman in that country who is not anxious to sell out and go back home.

Connecticut won the championship in American skill last year, having 706 patents, or one to 761 inhabitants. Arkansas is at the foot of the class; Massachusoss next to the head.



You Ask Me How I Live.

Living friendly, feeling friendly,
Acting fairly to all men,
Seeking to do that to others
They may do to me again,
Hating no man, scorning no man,
Wronging none by word or deed;
But forbearing, soothing, serving.
Thus I live—and this my creed.

Harsh condemning, fierce contemning,
Is of little Christian use,
One soft word of kindly peace
Is worth a torrent of abuse;
Calling things bad, calling men bad,
Adds but darkness to their night,
If thou wouldst improve thy brother
Let thy goodness be his light.

I have felt and known how bitter
Human coldness makes the world,
Ev'ry bosom round me frozen,
Not an eye with pity pearl'd;
Still my heart with kindness teeming
Glads when other hearts are glad,
And my eyes a tear-drop findeth
At the sight of others sad.

Ah! be kind—life hath no secret
For our happiness like this;
Kindly hearts are seldom sad ones
Blessing ever bringeth bliss,
Lend a helping hand to others,
Smile though all the world should frown,
Man is man, we all are brothers,
Black or white or red or brown.

Man is man through all gradations,
Little recks it where he stands,
How divided into nations,
Scattered over many lands;
Man is man by form and feature,
Man by vice and virtue too,
Man in all one common nature
Speaks and binds us brothers true.

—*Joseph Hobbins.*

Centennial Chat—No. 5.

[Written for the PRESS by MARY MOUNTAIN.]

Toward mid-July the heat of Philadelphia became almost intolerable, and Centennial pilgrims lagged wearily with aching feet and heads too hot and heavy to care whether they gathered in another sheaf from this wonderful world-harvest.

Our last few days were cheered by the presence of Mr. Ewer, and his welcome back to the Elm station encampment was warm and hearty enough to satisfy any warm-hearted Californian.

In fact, there was such a steady glow of friendship and social enjoyment as to serve as a safety valve between head and heart, so that when sunstroke and sudden death became frightfully frequent in other directions, there was no such alarm in our camp.

No Shadow of Fear within all Our Borders.

The good Dr. Albright had his drug store close at hand to the neat hospital beds, all in readiness; but when we kept up such a discouraging style of good health and high spirits, he cheerfully followed the fashion and brought around his fine, strong horses and carriages to take us over the beautiful country and show us the riches and comfort of its people.

One perfect day he carried us to the race-course just beyond Fairmount park, and showed us Goldsmith Maid, fastest horse in the world, and several others equally beautiful and nearly as fast. Then he introduced us to some of the native Californians, who brought over a band of 60 mustangs, with men and women to lasso, train and race them for the entertainment of our Eastern cousins and the world in general.

The Boston lady and her husband were with us, also Mr. Gale, a thorough-going Bostonian, full of anecdote and Yankee wit, who had scraped acquaintance with these tamers of mustangs, and could tell us all about their wonderful tricks and knowledge of horse flesh.

Picking up a hat with horse in full gallop was not entirely new to us, but we enjoyed his version of the performance, and were also glad to hear the company have a good name and are said to be strictly temperate in drink and diet; needing always the strong nerve and steady eye that can only be commanded by wise habits of life.

From the race course we rode all about the park, and from several high points could take in the whole length, breadth and beauty of the Centennial grounds, with all the vastness of buildings, the flashing of fountains, and swift rush of multitudes in the circling steam cars.

These views of the whole, in immense, animated pictures of all that eye or sense can take in at one time, have a permanent value; for bright among the treasures of memory will shine this wonderful day that showed us the kingdoms of the world and the glory of them.

I suppose nearly everybody has heard about

Fairmount Water Works,

And though the works themselves are truly wonderful in size and ingenuity, the water is not so truly clean and sweet as it ought to be.

Perhaps it is better not to tell what we learned about it, for some unlucky reader might recall that knowledge while in the very act of drinking a glass of Fairmount water. (what's in a name?) But we offered up emphatic thanks that we had been preserved from the danger and disgust of that city beverage, and been safely led by Grangers to the green pastures and beside the cool waters where health and happiness abide.

In the course of our ride we passed from works of nature pure and simple to works of art most grand and imposing; and often the skill of man had helped the harmony of nature to the combined effect of brooks and grassy slopes, trees, flowers and fountains, birds and gleaming statues.

Admiring and loving all these beautiful scenes, we could not say much more than that it seemed like a glimpse of fairy land, or an earthly dream of heaven. Passing under the massive arches of Girard bridge we could talk a little more easily; but all our choicest adjectives are worn threadbare and seem utterly lame and spiritless.

Mr. Gale told us a story of some school girl whose teacher had tried to break them of a too constant use of the word "splendid." So one splendid day teacher and pupils visited the Centennial and the girls all started in with splendid assurance, but before night the word was completely used up and left behind, girls all cured and declaring they could never bear to hear that hateful word again.

In the park are several observatories over 200 feet high, and we went up in the one nearest the grounds, well satisfied with our elevation as we talked over the project at one time entertained by a great iron company of putting up a

Centennial Tower 1,000 Feet High.

If it were possible to elevate people in so high a tower the sense of danger would spoil the enjoyment in most cases, for not many people can enjoy what they are afraid of. This tower of George's hill is high enough for comfort and gives a bird's-eye view of 30 miles in all directions, over a country that charms with its variety, villages, farms, rivers, forests, and we are greatly astonished to see such long lines of unbroken forest.

We try to picture it as it lay before the eyes of Wm. Penn and his trusty friends, who strove to read the future and plan for the coming generations the city that reaches now far and wide from this high point to the beautiful Delaware river. Straight before us in the city rises the smoke of ruins caused by a Fourth of July fire cracker. It was not so big a fire as it might have been, and not much noticed in the papers. A great deal of smoke comes also from manufactories and obscures the city view; but bright and clear, close at our feet, spreads the great focus of the world's journeying.

All alive with people are the buildings and beautiful grounds, but silent to us, for only the soft float of music from the marching band or a ringing bell can reach so high. A sense of discouragement and failure comes over me as I try to take it all in, and am forced to acknowledge that a volume of "Chat" all nicely illustrated would fail to reproduce for the distant reader a true impression of this beautiful scene.

The architecture of the principal buildings and the acres they cover, their towers, domes, arches, columns, avenues and aisles have all been minutely described and there is no need of special attempt in that direction; and looking at the completed beauty of the whole one becomes impatient of details.

Each building has its own style; the horticultural is a crystal palace, light and airy, full of rare trees, plants and flowers, it gives an impression of coolness in the hottest day.

The art gallery, and its equally spacious annex, is built of granite, iron and glass, and I forget now how many miles of pictures are hung thickly upon its walls; but one may wander from room to room and down long vistas rich in color and so crowded with treasures of art that the eye grows weary of seeing, the brain fairly giddy, and the soul sick with speechless admiration. But just as you are giving yourself credit for great susceptibility in this domain of high art, you will notice that these two immense buildings have no ventilation except through a few open doorways, and the secret of your soul-sadness is the sickness of your body from breathing impure air these two or or three hours.

The agricultural building is exactly suited to its business; not towering and aggressive, but generous, broad and peaceful, and what a rest to go there after the glitter of the main building, or the feverish crowding of the galleries, or the noise and tumult of machinery hall, where 14 acres of machines are all in motion together.

GRAND weddings they have in Mississippi. At the last one we are told that the bride "was exquisitely attired in heavy white gros-grain silk with trailing wreaths of starry jasmine and milky myrtle blooms, as delicately perfect as if fashioned by the fairy hand of nature. Over the white splendor of the silk, toning its gloss into a glimmer, dashed foamy waves of illusion, as if the sea of happiness that seemed stretching out at our feet had flung up visible white spray to bless her bridal garments. Crowned with her bridal coronet, half hidden in the fleecy folds of her wedding veil, this young lady reminded one of a radiant star in a veil of mist." Music!

Nothing Lost.

[Written for the RURAL PRESS by M. J. H.]

There are so many little branching streams from the main river of our lives that we are at a loss to tell whether they again unite with the large river or whether they are literally forever lost.

We travel many roads leading us out of our way. We learn many a lesson which never does us good. We make many a bargain which is much against us. We engage in many an occupation which it were better for us to have left to others. We go on many an errand and return empty.

These vexations take away our vitality. They discourage us. They lessen the main object of our existence, and the remaining power we claim is insufficient to perform well our duties. Are these trials of no use? Are our anxieties for naught?

No road was ever traveled without a wise result to some one. No lesson was ever learned but that it profited the learner. No bargain was ever made with loss to both parties. No occupation was ever followed that did not give a good result to either firm or patrons, and if we return empty from an errand we are quickened by shame to labor and self dependence. Let our anxieties end in trust. Despair not, for something good comes from all these workings of nature.

"These struggling tides of life that seem
In wayward aimless course to tend
Are eddies of the mighty stream
That rolls to its appointed end."

Home Life a Hundred Years Ago.

One hundred years ago not a pound of coal or a cubic foot of illuminating gas had been burned in the country. No iron stoves were used, and no contrivances for economizing heat were employed until Dr. Franklin invented the iron framed fireplace which still bears his name. All the cooking and warming in town and country were done by the aid of fire kindled upon the brick hearth or in the brick oven. Pine knots or tallow candles furnished the light for the long winter nights, and sanded floors supplied the place of rugs and carpets. The water used for household purposes was drawn from deep wells by the creaking "sweep."

No form of pump was used in this country, so far as we can learn, until after the commencement of the present century. There were no friction matches in those early days, by the aid of which a fire could be speedily kindled; and if the fire "went out" upon the hearth over night, and the timber was damp so that the spark would not catch, the alternative remained of wading through the snow a mile or so, to borrow a brand of a neighbor.

Only one room in any house was warm unless some of the family was ill; in all the rest the temperature was at zero during many nights in the winter. The men and women of a hundred years ago undressed and went to their beds in a temperature colder than that of our modern barns and woodsheds, and they never complained.—*Home Journal.*

RULING PASSION STRONG IN DEATH.—The dying often dream of their habitual occupations, and construct an imaginary present from the past. Dr. Armstrong departed delivering medical precepts; Napoleon fought some battle over again, and the last words he muttered were, "*Tete d'armee;*" Lord Tenderden, who passed straight from the judgment seat to his death-bed, fancied himself still presiding at a trial, and expired saying, "Gentlemen of the jury, you will now consider your verdict;" Dr. Adam, the author of "Roman Antiquities," imagined himself in school, distributing praise and censure among his pupils; "But it grows dark," he said, "the boys may dismiss," and instantly died; "My friends," said Fontenelle, a short time before he died, "I have no pain, only a little difficulty in keeping up life." —*Quarterly Review.*

AN OYSTER ON HORSEBACK.—A tortoise was lately brought into Central park having the shell of a full grown oyster grown upon its back. Frank Buckland recorded a similar instance in England a few years ago, and predicted that if the oyster was removed it would be found to have molded itself to all the ruggoities of the surface of the tortoise' shell. The Central park specimen rubbed the shell off its back a few days ago, and the pattern of the scales was found imprinted on the hard shell, showing the truth of the British naturalist's prophecy, that the valve of the oyster, which is attached to the fixed object takes the precise form of its surface.

SIGNS OF PROSPERITY.—If anybody can give any better "signs" of a tip-top state of things than the following, let us see the list:

Where spades grow bright, and idle swords grow dull;
Where jails are empty, and where barns are full;
Where church-paths are with frequent footsteps worn;
Law court-yards weedy, silent and forlorn;
Where doctors foot it, and where farmers ride;
Where age abounds and truth is multiplied;
Where these signs are, they clearly indicate
A happy people and well governed state.

THERE is no doubt that arithmetic was known and taught almost with the creation of man, for in Genesis you will find this passage: "And the sons of men multiplied on the face of the earth." They probably worked out problems in the sand.

A POLITE way of putting it—Troubled with a chronic indisposition to exertion.

A Farmer at the Fair.

Well, and how do you do, Mr. Editor, and how are the folks at home, and the "devils" in the office, and the pressman, and foreman, and mail boy, and all the rest? And I am right glad once more to shake your hand metaphorically, write to you actually, read your paper occasionally and moralize at the fair for you generally, provided you are as kindly disposed towards my effusions as you were two years ago. Perhaps you don't remember me. No? Well, I didn't suppose you would disremember me so soon as this, after so kindly inviting me and Granther Blanks to come and see you the next time we came to town. Well, I suppose you do have an awful sight to think about, and can't recollect everybody you see once as well as our country editors can. Why, our editor always runs to me and grabs my hand, and asks after the wife and children, and the cows and horses, and the bantam chickens (I keep Leghorns now, and it kind of bothers him to get the hang of the new name), and wants to know if I did not bring him a ham, or a quarter of veal, or a little butter, or a few apples, and won't I be sure to bring them next time. But he don't have so many faces to keep in mind as you do, I suppose.

Well, never mind, Granther Blanks and I have come to the fair again, and we are going to buy season tickets and try and tough it through. And the old man even wants to try the masquerade, and dress up in Mingo style, and actually thinks he could play big Indian as well as Sitting Bull. But that is a long way off, and it would not be surprising if he were to get tired before the fair is half through and want to go home; but I hope not, as I would like to see it out.

Nearly every one wants to go to the Centennial at Philadelphia, but it seemed to me that it would suit me better to come to the Mechanics', and stay a month or so, than to go there, and not be so expensive; and that's a point with us farmers when wheat, wool and hops all rule so low. I would like to visit the scenes of my youth once more, in the early rays of the rising sun, but when I reflect that most all my schoolmates are grown to maturity and gone, relatives dead or moved away, houses torn down or rebuilt, orchards where once was my play ground, new streets running through where then were our shady tangled brier patches for a *dernier resort* in "I spy," I can but think that the visit would only be a disappointment, and that it is better to preserve the memory of those scenes as they were than to see them now as they are.

So here we are, Granther and Zedekiah—he calls me Zed or Kiah for short—at the fair, and with your permission we propose to put the result of our cogitations on what we see upon paper in our own homely language, trusting to be as kindly treated as we were two years ago. If we should happen to make a few little mistakes in spelling or grammar, just consider that Webster hadn't hung up his scythe and gone to making spelling books and dictionaries in Granther's young days, and I had to work summers and could go to school only three months in the winters. Children now-a-days don't consider what little chance the old folks had in their young days to get an education, and often laugh at the errors in language of the grey-headed patriarchs that know more than they ever will, even though that knowledge is not so nicely bound and labeled. Yes, and even young men and women are often guilty of like impertinence, and thereby only prove that they have not profited by what they have been taught or might have learned had they improved their opportunities.

Bless me! perhaps you had better leave out this about education, or my neighbors may elect me school trustee next year, and that would be terrible trying to a diffident man like me. But do as you like about that; they may not know who I am, though my real name is going down at the bottom of these papers this year; so there now. ZEDEKIAH.

THOUGHTS.—Thoughts suggest thoughts, and these thoughts other thoughts, *ad infinitum*. Thoughts are invisible and mute until they are clothed in language, or embodied in works, then they can be both seen and heard. Without thoughts to direct the orator's speech, the author's pen or the artist's hand, no work could be accomplished, the world would become a dreary waste and man would soon be annihilated. Thoughts are like diamonds,—they sparkle, no matter how rough and uncouth their setting; and like diamonds, too, they are valued for their brilliancy, and the more highly they are polished the better they shine. Thoughts belong to their originator until set free and scattered; then they become public property and can never be collected together again as at first. The only way to keep your thoughts is not to divulge them—not even as a secret! Thoughts unexpressed, however, whilst they do no harm, do no good. Like a candle hid under a bushel, they burn, but shed no light. Therefore, it is best to divulge your good thoughts; but let your impure and evil ones (if any such you have!) ever remain in solitary confinement and silence, that they may be smothered and become extinct.—*Saturday Evening Post.*

A CHICAGO girl ate four pounds of wedding cake in order that she might dream of her future husband. And now she says money wouldn't hire her to marry the man she saw in that dream.

Home Teaching for Children.

A lady writer for the New York *Tribune* has something to say abont teaching children the elements of housekeeping. Speaking of girls, she says: The sooner they bcgin, after they are eight or ten years old, to make bread and biscnit, to wash dishes, to iron plain pieces, to sweep and dnst, to do plain sewing, the easier will all these things seem to them when they are grown, and the more naturally will they "take to" honsework. The programme implies a great deal. It presupposes that much of the work done will be imperfectly done and need snpplementary touches, that much crockery will be smashed and good material will be wasted, that there will be a mighty exercise of patience and forebearance on the part of mothers, of patience snd perseverance on the part of little girls, that sometimes everything will go wrong, the fire won't bnrn, the bread will, be sour or heavy, the needle will creak, creak on its way through unwilling folds, and the wheels of rontine run through deep sands as well as along smooth, hard roads. But it is a great deal easier in the end for all parties, for the girls certainly, and for their mothers as certainly, since they can transfer from their own to yonnger shoulders, properly prepared to receive them, some of the daily bnrden and care that make middle and advancing years so toilsome. It doesn't hurt girls to be made to take a measure of responsibility concerning household tasks; far otherwise, it does them immense good. Let them in succession have, a week at a time, charge of the chamber work, the mending, the cooking, the buying even for the family; all, of course, under proper supervision, and their faculties of reason, perception, judgment, discrimination and continuity will be more developed in one month of such training than in six of common schooling. We all know, who know anything at all of such matters, that often it is a great deal easier for mothers to do the work themselves than to teach young girls how to do it, bnt when will they learn if they are not tanght; and if their own mothers havn't patience to teach them, who can be expected to?

Allusion has been made to training girls in buying for the family. It is a pity that girls and boys are not tanght more than they are about the prices, values and qualities of articles, both of diet and dress in ordinary family use. With a little attention on the part of parents they might learn how judiciously to select their own clothing and to be able to tell what price they should pay, what qualities recommend one fabric above another, and of what materials the various fabrics are made and very mnch concerning their mode of manufacture. They can easily learn how to discern the difference between good meat and bad, sugar of first and of inferior grades, flour that will make bread of prime qnality, aud flour that cannot be trusted, good coal and poor, and so of all other articles of common use, with their prices. Knowledge of this sort imparted as occasion serves, here a little and there a little, in familiar conversation, and illnstrated by reference to the objects under discussion, will prove of immense value to young people when they, self-impelled or by outward necessity, launch out for themselves on the sea of life.

Mrs. General Custer.

I had never seen General Custer's wife when I met him at the Union League club reception, last winter, nor himself but once before in my life, and did not even know he had a wife. Observing, while we were engaged in conversation, that he smiled toward a lady who had previously excited my interest, I said, "General, who is that lady? Do you know her? She has such a bright, sweet look; and, though so simply dressed (she wore a plain, dark silk) is so thoroughly a lady that I want to know her. Above all, she looks interested and happy. I wonder who she is."

"Madame," replied the General, looking very pleased," "I shall be most happy to present the lady to yon, although, indeed, she knows yon already," and stepping to her side he said: "Allow me to present *my wife!*"

That is how I became acquainted with Mrs. General Custer, and, indeed, she was a wife to be fond of and proud of. Never away from her husband; all her married life was spent on the frontier, which offered no hardships or privations to her, which could be compared to separation from him. She had the sweetest, trnest face, and her eyes met his with such absolute trust as thrilled me with pleasure that was plain to see. She was a Michigan girl, and had only him; but "Oh!" she said, "no one can ever know but I how good he is." She had grown quite to love camp life, which had, she said, many compensations. The principal one of these was freedom from the ills and weaknesses which belong to high civilization. No headaches, no neuralgia, no nervous prostration, no pains in the side or diseases of the liver. Sleep is an absolute restorative, and in the regions which have never known kid gloves, or French cooks, every one wakes well.

Poor young wife!—it would have been a merciful bullet that had taken her with her husband. A note from her announced their departure a week earlier than they had expected from New York, in consequence of orders received from Washington. "I am very sorry," she wrote, "but you know a soldier's wife must always be ready." But not for this; her enemy, if one so innocent and good ever had one, would have gladly saved her this terrible blow.—*Jennie June, in Baltimore Am.*



NEBUCHADNEZZAR.

By Irwin Russell.

You, Nebuchadnezzah, whoa, sah!
Whar is you tryin' to go, sah?
I'd hab you for to know, sah,
I's a-holdin' ob de lines.
You'd better stop dat prancin';
You's pow'ful fond ob dancin',
But I'll bet my year's advaucin'
Dat I'll cure you ob your shines.

Look heah, mule! Better min' out—
Fust t'ing you know you'll fin' out
How quick I'll wear dis line out
On your ugly stubbo'n back.
You needn't try to steal up
An' lif' dat precious heel up;
You's got to plow dis fiel' up,
You has, sah, for a fac'.

Dar, *dat's* de way to do it!
He's comin' right down to it;
Jes' watch him plowin' t'roo it!
Dis nigger ain't no fool.
Some folks dey would 'a' beat him!
Now, dat would only heat him—
I know jes' how to treat him;
You mus' *reason* wid a mule.

He minds me like a nigger.
If he was only bigger
He'd fotch a mighty figger,
He would, I *tell* you! Yes, sah!
See how he keeps a-clickin'!
He's as gentle as a chicken,
An' never thinks o' kickin'—
Whoa dar! Nebuchadnezzah!



Is dis heah me, or not me?
Or is de debbil got me?
Was dat a cannon shot me?
Hab I laid heah more'n a week?

Dat mule do kick amazin'!
De beast was sp'iled in raisin'—
But now I 'spect he's grazin'
On de oder side de creek.

—*Scribner's.*

Young Folks' Column.

"Job."

I am a little black cat and my name is "Job." I haven't been around here very long, but long enough to feel just as large as any other cat. Folks say "he's just the least mite of a cat for his age," but don't you believe a word of it. I wear a red and green ribbon round my neck. I wish somebody'd play with me all the time. I can sing and scratch, and mew. I wish folks would keep their doors out of the way. They'r forever shutting them on my tail; then when I cry they pick me up and say, "Why! the poor little Job; was he afflicted again?" It don't feel good. Somebody let me drop off their shonlder the other day and nearly broke my nose. I couldn't cry, or sing either for a long time after that.

Then some one trod on my foot and hurt it so that I could't walk on it. It isn't well yet either. They'r sure to pick me up and play with me if I want to go to sleep, and if I m wide-awake and want to play they say: "No, no, Job must stay in his box. Nobody's time to play with him now." So I have to amuse myself as best I can by playing with my tail, or I have to curl up and go to sleep. They've got a box for me in a dark room, but I don't stay there mnch. It's nicer to play around where there's somebody to talk to. I don't like to be left alone. 'Tisn't safe. A stray cat might get me. A big stray cat wanted to fight me to-day. Any way, he peeped at me through the door screen. But I set up my back and tail, and told him "I wasn't afraid," and when he walked off I ran, fast as ever I could, to my mistress. I was going to tell her abont it, but she said, "Poor little Job! was he frightened nearly to death?" So I thought I wouldn't, maybe now they won't put me out in that box, because I know they don't want a stray cat to eat me up.

But I've sat still just as long as I can, now I must find something to play with. There's a leaf! I'm going to catch.—*Rural World.*

—Though your duty may be hard,
Look not on it as an ill;
If it be an honest task,
Do it with an honest will.

Everything you know how to do, that is done in a home, is something spun and woven and laid upon the store; something acquired for a life-time, that will last as thoso beautiful old linens used to last; something that yon will never have to spin and weave again.

Good Health.

Cure for Small Pox and Scarlet Fever.—A writer in one of the city dailies gives the following, which we print for what it may be worth: In looking over my scrap book I find the following recipe, which may prove of service to the general public at the present time. The writer says: "I herewith append a recipe which has been used to my certain knowledge in hundreds of cases. It will prevent or cure the small pox, though the pittings are filling. When Jenner discovered cow pox in England, the world of science hurled an avalanche of fame upon his head, but when the most scientific school of medicine in the world, that of Paris, published this recipe as a panacea for small pox, it passed unheeded. It is, nevertheless, as unfailing as fate, and conquers in every instance. It is perfectly harmless when taken by a well person. It will also cure scarlet fever. Here is the recipe, as I have used it, and cured my children of scarlet fever; here it is, as I have nsed it to cure small pox; when learned physicians said the patient must die, it cured: Sulphate of zinc, one grain; foxglove (digitalis), one grain; half a teaspoonful of sugar; mix with two tablespoonsfuls of water. When thoroughly mixed add four ounces of water. Take a tablespoonful every hour. Either disease will disappear in 12 hours. For a child. smaller doses according to age. If counties would compel their physicians to use this, there would be no need of pest houses."

Chance for Sickness.—Dr. Reginald Southey has recently been delivering a course of valuable lectures on "Individual Hygiene" in London, and in one he introduced a table of "Expectation of Sickness," which he had prepared, and which is as follows: At 20 years of age, calculato on four sick days yearly; at 20 to 30, five or six days; at 45, seven days; at 50, nine or 10 days; at 55, 12 or 13 days; at 60, 16 days; at 65, 31 days; at 70, 74 days. Of oourse this refers to people of average good health.

Dangerous Veils.—Ladies in traveling at this season of the year frequently wear veils of ganze most commonly light green in color. It appears that the use of these is not wholly safe; as a case has lately been published of a child, in Troy, N. Y., whose face while asleep was covered with a green veil to protect it from flies. The infant managed to get the fabric in its mouth, sucked it, and died shortly afterward, with all the symptoms of poisoning.

Domestic Economy.

Milk Instead of Soap.

A lsdy writes to the New York *Times* of a novel substitute for soap. Another recommendation in its favor it seems to us, is the economy of the milk, as even in cities where milk is from six to eight cents per quart, it would be less expensive to nse than hard soap:

Without giving any recipes for making soap, I wish to tell the hard worked farmers' wives how much labor they may save by not using such vast quantities of this artiole. For nearly five years I have nsed soap only for washing clothes. In all that time I have not used one pound of soap for washing dishes and other kitchen purposes. My family has ranged from three to 25. I have used cistern water, limestone water, as hard as possible, and hard water composed of other ingredients besides lime, and I find with all these my plan works equally well. It is this: Have your water quite hot, and add a very little milk to it. This softens the water, gives the dishes a fine gloss, and preserves the hands. It removes the grease, even that from beef, and yet no grease is found floating on the water, as when soap is used. The stone vessels I always set on the stove with a little water in them when the victuals are taken from them; thus they are hot when I am ready to wash them, and the grease is easily removed. Just try my plan, yon who toil day after day every spring to make that barrel of soap, and let us hear how it succeeds with you. I like the great barrel of soap on washing days, but am glad to dispense with its aid on all other occasions. I find that my tinware keeps bright longer when cleaned in this way than by using soap or by scouring. The habit so many of us have acquired of scouring tin is a wasteful policy; the present style of tinware will not bear it. The tin is soon scrubbed away, and a vessel that is fit for nothing is left on our hands; but if washed in the way I have described, the tin is preserved, and is always bright and clean.

Kitchen Fancies.

A lady writes for an eastern paper concerning fancies in cookery, as follows: I would like to ask if any one knows a sensible reason for the idea that, to make nice cake or pastry, the butter or lard should not be melted, but rubbed in cold with the hands? My mother (whom I have seen sit half an hour rubbing a cup or two of butter and sugar together) has faithfully labored to convert me to that doctrine, but as she can give no reason other than "old cake makers would tell you to do so," or, "melting the lard for pastry makes it look gray." I am still sn unbeliever. I know such pastry lookes more gray before it is baked, but can see no reason why it should after, if the grease is merely warmed enough to melt it, and experience convinces me it does not; though perhaps if it were poured very hot upon flour or beaten eggs, it might, by partially cooking them, affect the color or quality when baked. I can never think it other than a foolish waste of time and strength to work half an hour or more on dough, which, had the shortening been warmed a little, would have mixed equally as well in about two minutes.

Another foolish whim is indulged in by some when making sponge cake. I refer to the practice of beating whites and yolks of eggs separately until they are a stiff froth and one's body and patience are well-nigh exhausted. By the old-fashioned method this was undoubtedly necessary, as no cream of tartar being used, the lightness of the cake depended upon a foamy condition of the eggs; but with cream of tartar, as most people mako it at the present time, it is good enough when beaten bnt a moment. One lady who makes a great deal of sponge cake tells me she beats them no more or differently than for anything else, and thinks she has just as good success as when she beat it a long time and had a lame arm for several days afterward.

A friend who makes a very flaky piecrust with but little lard, kindly gave me what she thinks is the secret of it. She mixes a little lard with flour and cold water till quite stiff; then rolls it out, spreads on a little lard, sprinkles flour over it and folds it over so it is double; then rolls out and spreads on again, repeating the process two or three times; after the last time, instead of rolling it up, as some do, she folds it up once or twice and cuts the pieces for use from the edge.

Her idea is to keep the layers of shortening as near horizontal as possiblo, avoiding mixing them up, as one does in molding or rolling, and there seems to be a deal of reason in it.

Cocoanut Custard.—One pound of grated cocoanut; one pint of rich milk, and six onnces of sugar. Beat the yolks of six eggs and stir them iuto the milk with the nut and sugar. Put into a farina kettle, or into a small pail which you can set into a kettle of boiling water. Stir all the time till very smooth and thiok; as soon as it comes to a boil take off and pour into cups.

Apple Tea.—Peel, core and qnarter two pounds of apples, boil for half an hour in a quart of water, strain the liquor into a pitcher, add the juice of one lemon and loaf-sugar to taste.

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We wish to thank those subscribers who send in their renewals to the PRESS promptly as regularly as the year comes round. It saves us much expense in commissions for collections and renewals. May we not request more of our good patrons to do so!

Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, August 26, 1876.

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The Week.

The week is full of life beneath the clear, warm skies which have marked the passing days. The sun has shone upon the continuance of the fruit and grain harvests, and has called the rich bloom to the grape. Our columns reflect the activity which prevails throughout the agricultural regions of the State; and who can read without becoming more and more convinced that our State is springing forward?

In the city the Mechanics' fair occupies the attention of the idle and thoughtful, and delights the pleasure seeker and the student. Each day and evening the spacious building echoes with the sound of a throng as the pansea of the evening's music are musical with the ripple and plash of the fountains. There is spread before the sight-seer a wide and wonderful variety of beautiful and interesting exhibits. There are art and science and industry combined. Hours of careful study are rewarded with the acquisition of new and valuable facts and thoughts. There is almost an education in the display, as there are certainly delight and entertainment. He who observes the fair in all its parts will retire from the pavilion with new thoughts of the greatness of our State; and who would not go miles to possess such a thought?

The Wheat Market.

The situation in wheat remains very much as it has been for the last few weeks. The receipts at port are heavier and ships are moving out rather more freely, but, so far as we can learn, the interior transactions are rather light and the warehouses are getting the larger share of the crop. These warehouses at several points are noted as full and the number of new enterprises of this character bid fair to be fully employed by the neighboring wheat growers.

The prices offered at the different markets do not change. The cable quotation from Liverpool tends slightly downward when it is not stationary. Very much depends upon the harvest in England which is now reaching its termination under favorable weather. Very much doubt is still expressed concerning the character of the English crop, and estimates are said to vary greatly. Another week will doubtless bring more definite information on this point.

We have noted from time to time the great increase which is being made in the production of wheat in British India. The latest advices which we have of this year's crop in India is from the correspondence of the London *Agricultural Gazette*. In a letter dated Punjaub, June 23d, we find the following:

"Our harvest is over at last. The corn has all been trodden out and winnowed, and the greater part has been sold by the growers to grain merchants. The outturn of the cereals this year has been below the average, as I expected. The average yield per acre according to the different styles of cultivation has been as follows:

"White wheat 1874-75, 16 bushels per acre, 64 pounds per bushel; 1875-76, 20 bushels per acre, 63 pounds per bushel. White wheat, bearded, native method, 1875-76, 7 bushels per acre, 59 pounds per bushel. White wheat, bearded, land plowed with English plow, 1875-76, 8 bushels per acre, 63 pounds per bushel. White wheat, bearded, land plowed with English plow, manured, 1875-76, 22 bushels per acre, 65 pounds per bushel."

These brief notes give us much information of the methods and results in Indian wheat growing. They show clearly how great an advance can be made in the production of the country if English capitalists should enforce the home methods of cultivation upon their province.

As the harvest progresses and the bags are counted from the separators, it clearly appears that our wheat crop will fall far short of the early estimates. The reduction is notable in all the wheat producing regions. The early reports of an enormous surplus for shipment at this port has doubtless had an influence in shaping the views of foreign purchasers. We see now by the London dispatches that the Englishmen are modifying their estimates of receipts from California. They may safely reduce them and expand their ideas of price accordingly.

The determination of some of our Grangers to ship upon their own account is still strong as may be seen by the report of the wheat meeting upon another page of this issue.

THE ADVANCE IN SILKS.—As foreshadowed in an article on the silk movement printed last week, there has come a rise in silk goods. A dispatch from New York city dated August 21, is as follows: The *Sun* this morning has the following on the silk trade: "Shippers who were out Saturday found fifty-cent goods priced up to sixty-five cents, and indignant purchasers were told that the price is to be still further advanced, following the lead of the Silk Association. Small retail dealers are the first to take advantage of the failure of the crop. The large houses have advanced the price of braids and spool silk, but have not yet made any alteration in prices of dress goods. The reason is, there is little demand for silk of any kind. Stewart & Co. announce that although raw material has advanced 50 per cent. they will not increase the price of dress goods at present. With an ordinary demand for dress goods, half the houses in town would have realized a fortune by failure of the crop. Now, dealers say if they were to advance the price of the stock on hand, they would sell none. Commission merchants say that the price of American manufactured goods will advance at least 20 per cent. above present rates within two months.

A HINT TO HOME FRUIT DRIERS.—We receive from Mr. Woods, of Mission San Jose, a copy of the following useful suggestion: At this time while families are drying fruit throughout the State, it is well for them to know that in nearly every part of California the solar heat is not sufficiently intense to destroy any insect eggs that may have been deposited in the fruit while green or in course of its being dried. For the benefit of those who do not know how to destroy such deposits, we give the recipe practiced by a skillful housewife in Alameda. After the fruit has been properly dried in the open air, it is put into the stove oven and heated for a few minutes, enough to raise the temperature throughout the dried fruit to 140 deg. This requires a temperature in the oven of about 180 deg. A small fire is used, and the oven door left partially open.

THE Western Union telegraph company are engaged in laying a telegraph cable across the bay, between this city and Oakland.

Honey.

We took occasion about three months ago to point out some matters which should be observed to effect a more systematic and successful method of marketing the honey product. We learn that the San Diego honey producers have gone to work in this matter in good earnest, and have taken action which, as we think, is promising of good results. They formed an association and appointed a committee to consider the business aspects of the industry. This committee went to work forthwith, and in their report state that they have done the following things, as noted by the *Union:* "They have hired a warehouse where honey will be received and stored at the rate of one and one-quarter cents per case, or five cents per barrel per month—the time to be counted as not less than one month. They have employed a careful and experienced man to repack and grade honey for those who desire it, at from five to 25 cents per case, in proportion to the condition and work required. They have had printed certificates, to be signed by the president and secretary of the association, in the following form:

"'The San Diego beekeepers' association certify the within to be San Diego comb honey, of grade —— —— ——.'

"These certificates are to be pasted on each case, so that it cannot be opened without mutilating them, and it is expected that as soon as the association becomes known, they will carry it to the retail consumers. The certificates will be furnished to members at about one cent per case. They have made an arrangement with a careful drayman to haul from the warehouse to the steamship wharf at one cent per case. They propose to make special arrangements with the steamship and railway companies for careful and prompt transportation; with an agent in San Francisco for careful handling and loading in cars; with agents in Eastern cities for selling at the best prices and remitting promptly; and hope to effect an arrangement for advances to the producers before shipment."

All these points of action have the air of business, and if honestly carried out promise much good. The honey producers must develop the Eastern markets, and this can be done best by systematic effort with surety that the product shall be genuine. The enterprise of the San Diego apiarians is commendable and we trust it will reward them well.

The Grape.

The question of what profitable use can be made of the grapes is still unanswered. The Napa growers are quite discouraged. According to the *Reporter*, the wine men, thus far, have made no offer for the grapes. We read that "Mr. Groesinger has written up from San Francisco saying that it will be impossible for him to enter the field as a buyer this year to any extent, as he is now carrying over stock enough, with what his own vineyards will produce, to fill up his cooperage. Mr. Krug has not yet concluded what to do. He is in about the same condition of Mr. Groesinger, that is to say, has a large crop of his own, and a heavy stock of wine brought over, hence with money tight and times hard he is loth to go in debt to build a new cellar and purchase additional casks. The producers who have no means of manufacturing their grapes into wine are almost in despair. They see no prospects of realizing on their crops and know that their debts and liabilities must be met. Very many will have to borrow money and mortgage their places."

We also learn from the Napa *Reporter* that the phylloxera is appearing in some of the vineyards of the county. In a vineyard at Oakville the vines are turning yellow and dying.

Some time ago we gave in the PRESS an account of the French remedy for the insect by the application of sulpho-carbonates. We read now in the writings of M. Joubert that the destruction of the phylloxera by the sulpho-carbonates is certain. The dose of the insecticide may, however, be reduced, since 145 grains per square yard give the same results as about four times the quantity. Three applications per year to attacked vines seem sufficient to complete a cure.

M. Mouillefert, in another note on the subject, after carefully examining vines treated with the sulpo-carbonate of potassium last year, affirms that the sulpho-carbonates protect the vine and even revive it after the most severe attacks of the malady.

We submit that our growers should spare no watchfulness in the search for the pest on their vines and should be quick with the application of remedies. There may be small encouragement to save the vines when the crop finds no market, but he who sacrifices his vines will be unprepared when trade revives. We fully believe that this time will come, and that brighter days will shine upon an industry for which our State has unequalled adaptations.

ON FILE.—"East and West," Philmore; "Threshing," A. K.; "Notes from Bodega," E. H. C.; "Notes from Carpinteria," L. E. C.; "Answer to Sheep Queries," C. H. D.; Queries from "Milpitas;" C. B. C., of Bakersfield; R. W. W., San Bernardino; E. R., Anaheim; "Letters to Young Folks," and "Woodside Papers," J. E. J.

QUERIES AND REPLIES.

The Peach Market.

EDITORS PRESS:—By Wells, Fargo & Co.'s express we have sent you a small box of one dozen peaches, a fair sample of fruit shipped by us to your city. It invariably gets to market in good order, and still our returns give us no more than 25 to 40 cents per box of 30 lbs, not sufficient to pay for boxing and cartage to depot. Can you tell us why such ruinous rates rule, and if there is any way to improve the market.—PENTLAND BROS., Knight's Ferry, Cal.

The peaches were very much decayed when received, there being but three sound ones of the twelve in the box. From these three it was plain to see that the fruit was magnificent; indeed, we are not sure but we may place the peaches among the very best we ever tasted. The packing was skillful and well calculated to preserve the fruit, and the result would indicate that the peaches were over ripe when packed. If our friends have been sending fruit like this it is very plain why they have sold low. We believe, however, that the samples sent us were selected after the bulk of the shipping had been done, and consequently were riper than they are wont to ship.

We hear among our fruit dealers complaint that the Knight's Ferry growers do not do themselves justice in their packing and grading of fruit, and that fruit comes from many miles beyond them in better condition. We note this as a general remark for the attention of any who find their practice merits it.

There can be no doubt that the trouble which Pentland Bros. find in marketing their fine fruit lies deeper than the causes which we have noted as affecting the returns of some growers in their region. The fault lies in the market and not in the fruit. We noted last week the great glut in peaches which our market has experienced and how the noble fruit had to be sold for less than would pay for picking, packing and transportation. This is caused by the action of the simplest laws of trade. The shipments to our market are heavier than can be placed at good prices. The cords of baskets must be emptied at some price or they must be emptied into the bay. The result is that a consumer can buy at almost any price he is willing to name, and with the advantage on his side, he of course talks very low.

The plain remedy for this disastrous condition of affairs is to reduce the amounts thrown upon the market and only to supply as much as the consumption will take at a certain price. This is the simple theory of a cure, but how it can be put into practical operation is not so simple. It is not easy to withhold shipments because the fruit grower is sometimes distant from the city and cannot tell what prices are prevailing or how soon a break may occur. A plan has been proposed by which the growers could themselves control the supply and relieve the market of any surplus which was injuring prices. Although the plan which we shall describe below has objections we know of nothing better, and if our readers can suggest anything better we shall be pleased to hear it. In describing the proposed plan of action among the fruit producers we shall use the words of J. V. Webster, a well known fruit grower of Alameda county. Mr. Webster writes:

In my opinion there is but one course for us, which will afford any relief, and that is to prepare to handle our own surplus fruits. How? Simply by forming a joint stock company, its principal place of business, San Francisco; capital stock, $100,000, with at least 25 per cent. of that amount paid up in cash, a proper place for business secured, proper machinery and appliances placed in position, and the business of canning and preserving fruits commenced. Every fruit grower should be a stockholder in the company. A board of directors, composed of your best men should be selected, who should have control over the affairs of the corporation, elect its officers and select a competent business manager. The board of directors should fix a schedule rate for which all green fruits should be sold. Whenever the fruit would not bring the schedule price (which should be fixed at a fair living rate), send to the factory whatever is left of each day's shipment, unsold after 4 P. M. Grade and give each fruit grower credit at the factory for the amount received of his consignments. Let the fruit be put up as a whole, and sold from the shelves, dividing the profits pro rata among consigners.

Each individual can ship his fruit to any commission house he chooses, simply ordering his commission man to turn the surplus over to the factory.

The fruit growers must have more direct and prompt reports from their salesmen, so that they may be warned in time to prevent the stagnation of the market, which is inevitable in consequence of this piling up process.

Curing Tobacco.

EDITORS PRESS:—This is my first season in California. I am a subscriber to your valuable paper. I have a crop of some ten thousand tobacco plants now growing. They seem to flourish finely in this soil and climate, but I am told there is a difficulty in the process of curing it. If some of your readers who have tried it will inform me through the columns of the PRESS, I would take it as a very great favor.—JOHN D. JAMES, Los Angeles.

We hope our tobacco growing readers will give us their experience upon this point. We are aware that the curing of tobacco in this State has made considerable advance of late, but we are not aware of the methods employed. Will some reader favor us.

Scale Insect on Bartlett Pears.

We have received from W. H. Baxter, of Alameda county, two Bartlett pears afflicted with small, dark colored shell-like excresences npon its skin with the request that we point out the cause and the remedy.

The fruit is infested with a scale insect commonly called the oyster shell bark louse, (*Aspidiotus conchiformis*, G. melin). This insect is commonly found upon the bark of the apple tree, but was detected as early as 1868, by Prof. Riley, on the fruit of the White Doyenne pear, of the crab apple and of the wild plum. The insect which has taken possession of Mr Baxter's pears if not of the exact species we have named, belongs to the same genus, as can be easily determined by the examination of the shells or scales with a microscope.

If the scale be lifted from the fruit and inverted under the microscope, it will be found filled with white eggs nestling in the shell like the peas in a pod. These eggs are so small that they are scarcely discernible with the naked eye but under the microscope they appear clear. In the egg and the ecale can be seen the first steps which will lead to the per fect insect in due time.

In order to fully explain this matter which will doubtless be new and interesting to many of our readers, we give on this page an engraving of the progress of the insect in its various stages of growth. The engraving is taken from Prof. Riley's excellent drawings.

In Fig. 1, appear the scales natnral, size as they are commonly found on the bark of the twigs, the scales almost covering the bark On Mr. Baxter's pears the scales were not deposited so thickly as on the bark shown in the engraving. At every point where the scale rested there was a depression in the fruit. The scale was doubtless deposited while the fruit was green and checked the growth under it so that the ripe pear appears full of "dimples" with a scale in each. Prof. Riley attributes these depressions to the absorption of juice by the scale.

Fig. 2 shows the growth of the louse. Each figure is greatly magnified. No. 1, is tbe egg, which, as remarked before, can scarcely be seen without the microscope. Each of the little scales contains from 60 to 70 eggs. The natural size of each is scarcely one hundredth of an inch. These eggs remain in the scale until the following season, when they hatch out into the larva shown in No. 2. This larva (a highly magnified autenna of which is shown in No. 8) roams about on the twigs for a few days and then set about the work of reproduction, or, in other words, begin to bnild a scale in which to deposit eggs. No. 3, shows the first efforts at scale building, the insect becoming fixed on the bark and a furry coating of fine waxy threads issuing from the body. No. 4, shows the second step of scale making. After the scale is formed the louse looses its members and becomes of the forms shown in Nos. 5 and 6; and if the scale be raised at this stage the louse will be seen fastened within as shown in No. 7. Soon afterward the deposition of the eggs occurs, and then the louse shrivels and dries up, never leaving the scale, which thus becomes both the tomb of the mother and the cradle of the future young. The disappearance of the mother louse is so complete that the microscope shows no trace of her except the eggs which she has died in producing. This is the condition of the scales which we find on Mr. Baxter's pears. They now contain no insect life, but the eggs are stored up for next spring's hatching. On the bark of the tree these scales would remain perfectly impenetrable during the winter, but, on fruit which would fall to the earth and decay, the future life would in all probability never be developed.

The life of this bark louse, or scale insect, is a most interesting subject for study. We wrote a few weeks ago urging our young readers to begin the study of entomology. Those who have magnifying glasses of good strength should not forget the subject which we present this week. Examine the fruit trees and if you discover any little scales like those shown in Fig. 1, lift the scale and find the eggs beneath. Mark the spot and begin again next spring, and examine the scales from day to day and soon the eggs will hatch, and your eyes can behold the wonderful transformations which we have illustrated. We believe if the student can be induced to watch this one transformation from beginning he will acquire a longing which will yield him in the end a valuable knowledge of a science which is of exceeding value to the fruit grower and general farmer.

As this scale insect has such audacity as to attack our fruit as well as our trees it is well to know what remedies can be used against it. It has generally been found useless to make applications to the scale as it is impervious to liquids. On small trees it is best to scrape the scales and apply a strong wash. Prof. Cook, of Michigan, records a case of success with washing with soft soap after scraping. But the best time to kill the pest is when the eggs hatch in the spring and break ont of the scales. When the lice are on the twigs a strong soap suds will finish them. It must be applied at intervals during the hatching season, as the lice do not all see the light on the same day. Great care must be had in watching for the hatching because the lice have but a few days of liberty before instinct teaches them to wall themselves in and prepare for the next year's brood.

Fruit for Philadelphia.

The last chance for California to make a creditable display of fruit at the Centennial will be at the special fruit exhibition September 9th. During the last week thero have been earnest appeals made through the daily nowspapers and by means of circulars nrging the fruit growers to send on samples of their fruit to the headquarters of the fruit shipping company, corner California and Davis streets, as a carload is to be made up for Philadelphia A committee secured subscriptions to the amount of $1,000 to pay the expenses of transportation. The matter has been actively urged, and we trust with snccess. The committee state that fruit must be received by August 29th, and if this notice should reach our readers in time to enable them to contribute samples of fine fruit for shipment, we earnestly request them to send them, to the end that the State may secure from the Centennial judges fitting recognition of her peerless fruit growing qualities.

Indications continue of the promising outlet for California fruit in the Eastern markets. Of the hearty way in which Philadelphia welcomes the movement, the *Times* of that city says: A new branch of trade is likely to attend the display of California's wonders at the Exhibition. The markets of San Francisco and Sacramento are constantly glutted, and the fruit growers determined, while arranging for their Centennial display, to find an outlet in the Eastern markets. They sent Mr. Earle to this city to investigate and report upon the feasibility of such an undertaking. Mr. Earle found retailers charging $1.50 per pound for hot-house grapes, and that a good field was opened, which, like the banana trade, would itself create a demand. One of our transportation companies is reported to be building 100 refrigerator cars for the California trade. In two years it is presumed that the California fruit trade will form an important business interest in Philadelphia, and arrangements have been made by which regular shipments will commence next spring. The firm interested in this venture have secured a building on Delaware avenue, the lower portion of which they propose to transfer into a refrigerator, and expect not only to keep large supplies of California fruits, but bananas, pineapples, etc. A carload of California pears is to be sent through in September, and within two weeks a carload of grapes will arrive, which will settle the question of the practicability of the enterprise. So confident are the projectors of their success that within two years it is heralded that fruit trains will leave the Pacific coast daily for the East, and that in another year two or three trains of 25 cars each will leave every week. Peaches have already been brought here from California and sold at $10 a case, which contains about 200 peaches. The trade is likely to commence in earnest next year, with a shipment of apricots and peaches about the middle of June. Early varieties of plums and late varieties of peaches will follow, and about the first of July the shipment of Bartlett pears will likely commence. By the first of August it is expected to send grapes here, such as we have never seen in these markets, in clusters weighing from six to eight pounds Almonds and raisins, upon which large duties for importation are paid, can be furnished from California at less prices than Malaga and Almeria fruit are sold. The results of experiments thus far made satisfy the fruit growers that in a short time the demand in the East for California fruit will be very great.

Edward S. Stokes, the murderer of Jim Fisk, will be released from the Auburn prison on October 23d.

The preliminary works of the international exhibition, to be held in 1878 in Paris, have begun.

Personal.

We had a call on last Thursday from H. M. Jewell, of Half Moon Bay, who has just returned from a visit to the East, having seen the Centennial, and other things. He brings back as a curiosity a bottle of Colorado bugs, which are now devastating the potato patches of the extreme East, the Middle and New England States. We had all the acquaintance we desired with these ruinous insests before we left the East, and Mr. Jewell's bottle awakened unpleasant memories. He promises never to draw the cork. To have the pest introduced here would be ruin to our potato growers. Mr. Jewell brought also about as fine a sample of Cotswold wool as we have ever seen. The staple was of silky texture and measnred 18 and one-half inches in length. Mr. Jewell bought some of the sheep from D. Sornberger, of Chittenango, New York; but is in doubt whether he will bring them out unless the wool interest here should look up a little. Mr. Jewell had a pleasant trip, and we are glad to see him back again.

H. E. Hallett from Emmaton, Sherman island, made us a call on Tuesday. He reports the agricultural enterprises of the island in favorable progress generally. On some parts of the island there is need of more complete levee building, and this he thinks will be done soon. The conditions under which crops can be best advanced are becoming better understood and experiments are achieving success. Our correspondent who sent us the fine onions some months ago has secnred some excellent ones this season. His experiments with irrigating the crop were successful where too mnch water was not applied. We hope to hear of his success from our correspondent directly when he has leisure. Mr. Hallett promises to send us notes of doings as they occur.



THE PARA OF TEHUANTEPEC.

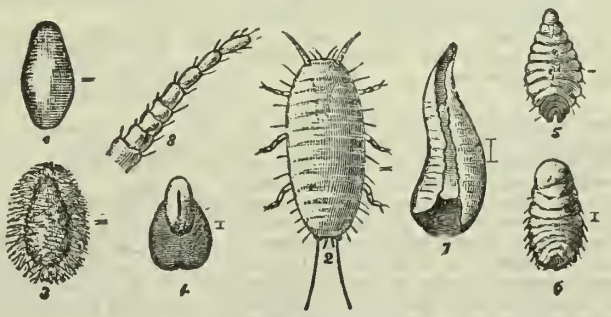
The Para.

We give an illnstration on this page of a fowl called the "Para of Tehuantepec." It is a handsome black bird about the size of a turkey and was fonnd in abundance by explorers of the Istbmus route. The bird belongs to the Penelopidae, a family of gallinaceous birds peculiar to the t opics. Otber species are found in Guiana and Brazil. The Para has several names. It will answer to "Curasaw," or "Craxas," as the caller choose. Paras generally move in flocks, build their nests among and often upon the trees. They are capable of improvement by domestication. Other species of the same bird are found in New Mexico, and are called the Chiacalaica.

Fig. 1.



Fig. 2.



SCALE INSECT ON BARTLETT PEAR.

California Hops.—Last week we made a brief note of the hop crop as shown in two counties of the State. We continue the subject with the following from the *Valley Agriculturist* relating to the hop crop of Sacramento county: Hop picking is now fairly under way in this county. There are about 350 acres, which, on an average will not yield more than two-thirds as much to the acre as they did last year. The lightness of the crop is owing to the weather last winter. Some of the ranches will yield fully as well as they did last season, while on some others the crop is extremely light. The quality of the hops, however, is excellent. The principal hop producers in this county are Daniel Flint, T. B. Flint, R. J. Merkley, C. V. Drockway, A. Mouton, T. B. Lovedale, F. Scherr, Mr. Olsen, Mr. Myers, Mr. Camp, John Neal, Henry Whittenbrook, Rudolph Whittenbrook, A. Menke and S. Poorman. Each year more and more attention is being paid to this business. There are now hop ranches in 16 counties in this State.

The Centennial at Philadelphia.—No. 12.

Again taking a stand near the center of agricultural hall, and facing west instead of east, as we did to view the machinery exhibit, we have before us samples of all the various products of the earth and sea, collected from each of the four quarters of the globe. Upon our immediate left is Spain, with her wines and fruits; jnst beyond is Russia, and still further to the left we have grouped together some 20 other nationalities, each with its peculiar products neatly displayed and convenient for inspection, study and comparison. Upon our right are similar products from the various portions of our own country, generally arranged by States. If we pass eastwardly a short distance along the main aisle and then turn short to the north, we come upon

The California Display,

In charge of Mr. Scupham and under the auspices of the Central Pacific Railroad Co. We have already noticed this exhibit at considerable length, but now return to it again to call attention to a few additions which have recently been made, one of the most noticeable and attractive of which is a mammoth representation of the California State seal, some three feet in diameter, and most elegantly engraved on wood by D. W. Standford, of Oakland. It is shown to good advantage and attracts much attention. Near by has been erected a pyramidal trophy of California cones, from Mr. Begg's collection. There is also a fine display of this year's crops—much that was sent, however, was destroyed by being packed too green or damp. Wheat is shown in the stalk and grain, the former six and a half feet high. Rye is shown seven and a half feet high, and corn from 18 to 22. Stalks of mustard are shown 13 feet high. There is a fine exhibit of silk in this collection, also of jute, and 56 different kinds of California ornamental woods. Messrs. Aitken, Luce & Co., of Sacramento, exhibit a beautiful monument of California marble, surmounted by a white dove. There is also a fine exhibition of silk in this collection. I am informed that the first car load of fruit intended for the Centennial was received some time since, but was not placed on exhibition on account of the imperfect condition in which it arrived. Mr. J. Earl, of the California emigrant bureau, is expecting to receive fruit regularly during the remainder of the season, which will be placed in the pomological annex for exhibition. The Pacific coast railroad exhibit may now be considered full, and is much larger than was originally intended. It should be mentioned in this connection, that California's large grapevine, after laying around for some weeks waiting for the assignment of a suitable place for its exhibit, has at length been set up near the center of the agricultural hall, where it is attracting much attention as a specimen wonder from the Golden State. In addition to the silk exhibit in agricultural hall, Mr. Neuman also makes a very fine exhibit in the silk department of the main building, and another, in which the worms are shown in all their various stages of growth, in a large case placed in the center of the California building.

The Wine Exhibit.

There are several exhibitors of California wines; but the one that attracts chief notice is that of Mr. Mahe, of San Mateo, who cultivates the Mission grape only, and manufactures from it what he styles, "Mahe's California golden wine." This exhibit is in charge of Mr. L. Ponton DeArce, who also has a restaurant near by, where, for one dollar, he dispenses a liberal lunch, accompanied with a half bottle of golden wine. This being the only wine in the building of which visitors can get a taste, and a good wine, too, it is freely praised, and, so it is said, large orders are being left for it, especially from New York. Much interest is felt, however, in regard to the opinion which the judges may pronounce on our California and other native wines, and much disappointment expressed that Gen. Naglee, the judge selected from California, cannot be present to ensure for the wines from the Pacific coast a fair and full consideration. An Eastern cotemporary says, that the large show of wines from California, Ohio and Central New York is well calculated to make foreigners think that the problem, "Will the future American drink wine?" is fairly settled in the affirmative. But be that as it may, it is certain that the extent of the industry as indicated by statistics within the reach of all, yet but little studied, supplemented by the exhibit here, must greatly surprise nine-tenths of our own people, and all foreigners. It will also arrest the attention of our temperance friends, and will, no doubt, soon cause a more earnest discussion than ever, of the relative effects on a community of the presence of high priced, strong liquors, and low grade, cheap wines. It is one of the curiosities of commercial transactions, and one of those things the reason of which is past finding out, how a foreign article bearing the imprint of importation will command a higher price and meet with a readier sale in our markets

(Continued on Page 148.)

ARBORICULTURE.

Southern California Palms.

We find in the *Gardener's Monthly* a note from Sereno Watson, concerning the palms of southern California, which will interest our botanicsl readers. It will be remembered thst Mr. Watson is one of the tireless workers to whom we are indebted for the new California botany. He writes: In your note upon my last, "contribntion" in Jnne *Gardener's Monthly*, I see that you have misnnderstood me in regsrd to south California palm.

Brahea, is a genus ot Central Mexico, of a single species so far I know, *B. dulcis*, Martius. The palm of south California, before much was known abont it, was referred by Cooper, and in the botany of the Mexican bonndsry, doubtfully to the same species. When seed was sent to Europe a few years ago, and it began to be cultivated, Wendland named in *Brahea filamentosa*, and it was so known, by the few who had it, but it was never published or described, and the reference to Brahea was probably merely a guess on the part of Wendland.

When the Guadalnpe specimens came (flowers, fruit and foliage) I studied them up as opportunites permitted, and was disposed to call it a Livistonia, but sent it to Wendland who named it *Brahea edulis*, as I have published it. I still think however, that I was more nearly right, but named the second species from the Tantilias mountains in Lower California, *Brahea armata*, as it is was certainly of the same genus with the Gnadalupo species.

Bnt if these two are Braheas, what is the old San Diego species? If you had represented me as saying that it is not a Brahea you would have hit it exactly, for in describing the differences in the fruit I intended that that should be inferred. And, in fact, since my paper appeared I learn that Wendland has transferred it to Pritchardia, and that the plant is now for sale under the catalogue name of *P. filamentosa*, or as some have it, *P. filifera;* see, May number of the *Garden*, with a (made up) figure.

Both Dr. Parry and Dr. Palmer are looking into the matter of the palms of our Western coast, and I trust that we will have more perfect knowledge of them by the time that the second volume of the "Flora of California" is ready for publication.

USEFUL INFORMATION.

A Handy Table.

We are indebted to Mr. J. H. Main, says the Albany *Democrat*, carpenter and contractor, for the following valuable table to those who desire to make their own estimate for building. It is worth pasting in your scrap book:

One thousand feet of flooring or ceiling will lay 800 feet of solid superficial measure. One thousand feet of siding, 750 feet. One thonsand feet rustic siding, 10 inches wide, 900 feet. All lumber is measured before planing, and is so calcnlated in all bills.

Five gallons of oil is snfficient for 100 pounds of lead—boiled oil or raw; also, turpentine weighs seven pounds to the gallon. Eight pounds of properly mixed paint will cover three squares, one good coat.

It takes from five to six pounds of shingle nsils to the 1,000 shingles. Twenty-five pounds flooring brads will lay 1,000 feet flooring. Sixteen pounds flooring brads, three penny, will lay 1,000 feet ceiling.

Nails will weigh as follows: Seven inch spikes, five will weigh a pound; sixty penny nails, nine to the ponnd; forty penny, 13 to the pound; thirty penny, 23 to the pound; twenty penny, 34 to the pound; twelve penny, 48 to the pound; ten penny, 58 to the pound; eight penny, 89 to the ponnd; six penny, 153 to the ponnd; four penny, or shingle, three hundred and fonr to the ponnd.

Average green fir lumber weighs 4½ pounds to the foot; seasoned, 4 pounds; green cedar, about the same as fir; seasoned, 3 pounds. Five hundred feet of either green cedar or fir is equal to one ton. Green cedar shingles weigh about 400 pounds to the 1,000; dry, 250 to 300. Shingles baled, in what are called one-half bunches, should overrun, or, in other words, should contain 504 shingles; one-qnarter bunches fall short four to the bale, or 16 to the thonsand.

Classification of Clouds.

Whenever, on account of some topographic circumstances, the sun heats any locality on the surface of the earth more than the surrounding region, a gentle current or colnmn of heated air rises, and its invisible moisture is condensed into small masses of clouds called *cumuli*, which spread and produce the mottle appearance commonly known as "mackerel sky."

Bnt when, as is frequently the case in summer, a valley, or plain, or island, or any other place, is much more highly heated by the sun than the snrrounding region, the heated air over such locality rises more rapidly and with more ascenaional momentnm; and, as it reaches the bigher and cooler regions of the atmosphere, its moisture is condensed into large rounded volumes, or mountain-like masses of *cumulus* clouds. Such *cumulus* clouds always precede and characterize a local summer storm or shower.

When the warm horizontal current from the south, as in winter, meets with the cold current from the north, it slopes upward over the cooler current, and forms stripes or bands of *stratus* clouds along the horizon.

These *stratus* clonds indicate to the observer the fact that a warm current is northward.

When in summer a cool current is moving southward, it encounters the warm equatorial or tropical current, which again glides upwards and over it, and forms horizontal bands of *stratus* clonds along the upper line of contact, as in winter storms; but, in addition, the denser cold air from the north, moving with more momentum, will lift up the warm and saturated air from the tropics, and its moisture will be condensed into masses of *cumulus* clonds banked up against the top of the old current, snd arranged over the horizontal *stratus* clouds. Thus is produced the combination of *cumulo stratus* cloud, which is charscteristic of progressive summer storms.

To the tornado cloud prodnced by a whirl of air, and resembling an inverted cone, Prof. Blasius gives the name of *conus*, which is both distinctive and appropriate.

These four typical classes of clouds—viz. *cumulus*, *stratus*, *cumulo-stratus*, and *conus*—indicate and characterize the four different classes of storms.—*Popular Science Monthly*.

Rattlesnakes and Their Bites.

In the course of some notes on the rattlesnake, published in *Forest and Stream*, Dr. J. W. Bailey, of Albany, asserts that this serpent is the most sluggish of the snske family. It never strikes unless in self-detense, excepting just before and after its winter sleep. Of course, the rattlesnakes idea of self-defense is rather broad. Thus, if a person step upon it by the purest accident, the snake will make no allowance, bnt strikes the intruder on the spot. To strike, however, it must be in close coil, with its head erect. It is capable of springing only a little more than half its length, unless it be lying on an inclined plane; then, by snpporting itself entirely on its tail, it can spring much farther. Hogs attack the rattlesnake with impunity, the effect of the poison being probably neutralized by a thick layer of adipoise tissue. Dr. Bailey is able to contradict, from his own experience, the statement that serpents do not move about at night; he has often when riding by moonlight seen them gliding through the grass. The author says that when the venom of a serpent has entered the circulation all remedies are unavailing. He has seen a freshly killed chicken split open and applied to the wound, with good results. In such cases the flesh of the chicken turns green and putrid when it comes in contact with the virus. The most certain remedy, however, is whisky or brsndy us d in large quantities—say a quart—immediately. Intoxication is not exhibited until the poision has been counteracted. Sweet oil, taken in doses of several ounces, is also effectual. Sportsmen camping in Texas sre accustomed, after pitching their tent, to stretch around it a hair lariat. The short hairs irritate the snake's belly as he attempts to cross the lariat, and he retreats.

A NEW USE FOR IRON.—One of the most incomprehensible discoveries—if it be true, which is questionable—that we have ever encountered is announced in a recent French journal by M. Massie. He says that the mere introdnction of iron bar in the box in which barley, rice, bran, biscuit, and like farinaceous materials are stored, is sufficient to prevent either the ravages of decay or the attacks of insects. Full details of the experimental investigation are given. An iron bar three pounds in weight is reputed to have protected 40 gallons of grain; and certain biscuits were preserved for seven months in excellent condition, while others, under like circumstances bnt without the iron, were totally destroyed by weevils.

POISONS.—On April 21st the Austrian government published a decree in regard to the traffic in poisons, declaring the following substances to be included under the term poison: 1. Arsenic and all its compounds. 2, Chlorides and oxides of antimony. 3. Oxides and salts, including the chlorides, iodides and bromides of mercury. 4. Ordinary phosphorus. 5. Bromine. 6. Prussic acid, and preparations containing it, as also all cyanides, with the exception of those containing iron. 7. All violently active preparations made from poisonous plants and animals, and manufactnred srtificially, such as the alkaloids, curare, cantharides, etc.

BURNS AND SCALDS.—The recent fearful explosion on board the British ironclad *Thunderer* has called out the publication of many recipes and remedies. Among them all, the following, contributed by an old and experienced physician, has the merit of convenience and readiness. The remedy is simply this: The common whiting of commerce (found in nearly every kitchen), reduced by cold water to the consistence of thick cream is to be spread on a light linen rag, and the whole burnt surface instantly covered, and thus exclnded from the action of the air. The ease it affords is instantaneous, and it only requires to be kept moist by subsequent occasional sprinklings of cold water.

List of Exhibits at the Eleventh Industrial Exhibition of the Mechanics' Institute.

From Entry Book No. 1—1 to 200.

1. A S Hallidie, wire work, etc.
2. Mrs H Kozminsky: 1 quilt, "Job's Patience."
3. Thomss McKibben: 4 iron (patent) wheelbarrows.
4. Mrs M V Kendsll: 1 frame of hair work.
5. Mrs P V Merrill: 1 worsted quilt.
6. Miss M Dnnlsp, Mission and 22d streets: 1 water color painting; 1 painting on china.
7. Mrs Earl Bartlett: 1 quilt, knitted by an old lsdy 74 years old.
8. Miss E J Wilcox: 1 case of zephyr flowers.
9. John D Godeus: 1 oil painting.
10. Miss Annette Jones; 1 basket of wax verbenas.
11. J Hendrickson: 1 inlsid ladies' dressing case.
12. Miss Annie Dohle: 1 worsted wreath.
13. Mrs Barbara Smith: 1 knitted bedspread
14. Miss Jessie Redden: 1 patchwork quilt (double Irish chain).
15. Mrs H Forster: 1 case lscteous farina.
16. Mrs A F Smith: ornamental toilet sots made from oilcloth.
17. Walter Phelps: 2 pine cone frames.
18. Mrs Mary Csrrigsn: 1 patchwork quilt, red, white and blne.
19. Mrs E I Brown: 1 old fashioned log cabin quilt, 2,220 pieces.
20. Sanborn & Duval: 1 set buggy wheels; 1 set lnmber wagon wheels; 1 eet truck wheels; Duval's patent.
21. Mlle Celine Lemoine: 1 crochet bedspread.
22. Golden Gate Academy: 7 frames of ornamental penmanship.
23. E B Smith & Co: Litton Springs seltzer water in jugs, bottles and kegs.
24. A Kruger: specimens of wood engraving.
25. Mrs N J Healey: 1 vase wax flowers; wsx cross, wax basket, worsted wreath and wax wreath.
26. C T Peters: 1 model of full rigged ship.
27. C. Leonard: specimens of machine rope and spiral molding.
28. Mrs Annette Jones, Alameda: 1 wreath (in frame) of preserved ferns, 1 wreath (in frame) of wax flowers.
29. Mrs A C Flood: 1 basket wax flowers, 1 bouquet wax flowers, 1 pond lily (wax), 1 cross (wax).
30. Mrs H Butler: 2 embroidered baby's shawl.
31. Mrs F S Regensberger: 3 pieces needle work.

From Entry Book No. 2—200 to 400.

201. Linforth, Kellogg & Co: 1 Pitt threshing machine, 1 wood besm snlky plow, 1 cnltivator, 1 corn sower, 1 sulky rake, 1 harrow, 5 small plows, 1 fan mill, 1 Wood mower, 1 seed drill.
202. M C Hawley: 1 Buckeye self raker, 1 trade engine.
203. Samuel Gray: model twin staircase and elevator.
204. H. Palmer: 35 cases red mountain wine
205. S P Taylor & Co: 33 bundles and rolls book, news, blank langing and blue paper.
206. E M Benjamin: 3 West Coast safety ladders.
207. John Bergstrom, S F.: 1 large church organ, 24 stops.
208. James H Gates: 7 soda water and other fountains.
209. Cal Fertilizing Co: 6 barrels fertilizing materials, guano fluids, etc.
210. E Hook: 4 Townsend's patent tables, called the "household treasures."
211. R W Brehm: turned work from California woods and samples of California woods.
212. F Ogden: 1 Tulloch's automatic ore feeder.
213. Cal Spring Bed and Mattress Manufacturing Co: 4 Crandall beds, 4 curled wool mattresses, 2 bedsteads, 2 cribs snd mattresses.
214. Alex Mackay, domestic carpet manufacturing Co: 13 pieces carpet; 66 bundles colored twine for carpet warp.
215. W Paulson: 3 rustic fern cases, 1 rustic bench, 1 rustic chair and 1 turning lathe.
217. Robert A Martin: 3 crayons framed.
218. A D Hatch, agent: Wendell's patent doorstop and fastener.
219. E K Howes & Co: display of woodenware.
220. Smith Bros: display of borax in all forms.
221. Linforth, Kellogg & Co: 1 Russell's self-raking reaper.
222. F Altman: 1 Lotman's feed mill.
223. F Altman: 1 pony power.
224. Sanborn & Byrne: 4 stair newells and balnsters
225. Jas E Gordon: 2 lawn mowers; 1 file show card.
226. Jas E Gordon: 1 chain forge and tools.
227. J Gray & Co: 8 spring beds, 3 bedsteads 1 crib.
228. Jos Browell: a large collection of patent chimneys and chimney tips.
229. H O Reinhardt: display of hardware.
230. Linforth, Kellogg & Co: 1 Mansfield threshing engine.
231. D M Osborn & Co: 2 No. 6 Wheeler combined reaper and mower, 1 No 6 mower (Wheeler), 1 No. 5 mower (Wheeler), 1 Kirby mower No 1, quantity of sections and knives.
232. D S Dow: specimen of penmanship.
233. W S Moses: pastry bureau.
234. O R Coe: 1 lifting machine, 1 Fairbank's platform scale, 1 lounge, 2 chairs, Mann's reactionary lift.
235. S C Gray: 6 sides "Union Crop" sole leather.
236. Geo F Atkinson: articles of California wood (turned).
237. Geo F Atkinson: 1 J A Fayi wood turning lathe.
238. H Palmer: samples of California wine.
239. John V Hoffman: case containing cylinder writing desk.
240. H N Cook: 1 coil double leather belting, 2 doz leather fire buckets, 1 doz bullion leather bags, 4 leather mail bags, 8 canvass express bags, 3 press packings, 7 hides of lacing leather.
241. R A Martin: 17 frames of photographs and crayons.
242. Cal Bellows Co: 1 smith's bellows.
243. Thompson Bros: 3 vault covers for pavements, etc, 1 ring, 6 illuminating titles.
244. Hutchings & Co: samples of refined and crude whale oils.
245. Hueter Bros & Co: case of samples of varnish, 26 cans, show-case containing 86 fancy jars of colors, frame containing brushes, frame containing bronze and other metal powders.
246. A L Bancroft & Co: 11 frames with samples of printing and lithography, 1 case illustrating the process of zincography, 5 mounted maps.
247. Rubber Paint Co: samples of rubber paint, various colors.
248. Linforth, Kellogg & Co: 1 Fish Bros 4-spring wagon, 1 Meyer's gang plow.
249. Newman Bennett: 2 soda fountains, 1 case Rimmel's perfumeries, miscellaneous assortment valentines, bon bons, etc.
250. Locke & Montague: marbleized iron mantles, nickle-plated grates, fancy coal vases, polished fire irons.
251. R Russly: miscellaneous collection of Chinese and Japanese fancy goods.
252. Joseph Bros: 33 boys' clothing stands, with clothing attached.
253. F A Huntington: 1 shingle machine and jointer.
254. John E Perkinson: flexible Harrow "Inverted Diamond."
255. Howard & Morse: 10 rolls wire cloth.
256. H Williams & Co: display of Yerba Buena bitters.
257. Frank Bros & Co: agricultural implements, viz: separator, steam stacker, farm wagon, harvester, binder, reaper, mower, gang plows, cider mill, grain drill, seed sower and Hoadley's engine.
258. W E Garratt & Co: steam pumps, brass goods, church bells, and general assortment of engineers' findings.
259. E O Hunt: 2 Centennial windmills.
260. S F Journal of Commerce: products of California, wool, seeds, etc.
261. John W Quick: 33 perforated screens, various sizes.
262. Geo Hayes & Co: 2 patent skylights, de sign for metal window, specimens of galvanized iron work, specimens of zinc work.
263. J Hendy & Co: 2 concentrators, 1 ore feeder, 1 lathe, 1 planer
264. Hakes & Carroll: 1½ doz Ellis' patent burners and regulators, ½ doz globes and holders, 1 toy table (Francis patent), 1 doz Stockwell self-lighting gas burners, 1 patent test metre.
265. Seward Cole: asbestos material.
266. Mrs Westwater: picture "Magdalen."
267. Peter Burns: display of ammonia soap.
268. Gray & Winslow: zinc monuments.
269. H Fishbeck, display of toilet, bleaching and common soaps.
270. Chas Otto: 1 show case containing cutlery and mechanics' tools; lot of hinges and sample board.
271. Linforth, Kellogg & Co: Fish Bros' platform wagon.
272. M C Hawley & Co: 1 gold medal separator, 1 portable steam engine, 2 French burr stone mills, 1 challenge feed mill, 1 Buckeye drill, 1 Deere gang plow, 2 Deere single plows.
273. M C Hawley: 1 Regulator windmill, 2 Rumsey pumps, 1 corn and cob crusher, 1 Schuttler's spring wagon.
274. S F Gaslight Co: Preparation of ammonia.
275. M C Hawley: 11 Enterprise coffee mills, miscellaneous collection of hardware, sample card of fancy butts.
276. J C Bidwell: Agricultural steels and Iron ware, cast steel castings, carbon bronze for journal bearings.
277. Dr W S Beebe: Case of dental goods.
278. Snook Bros: Artificial stone for floor and pavements.
279. M G Griffin, agent: 3 Bickford's family knitting machines.
280. Linforth, Kellogg & Co: 1 Enterprise coffee mill.
281. Hartshorn & McPhun: Window shades, rollers, and opaque shade cloth.
282. M C Hawley: Perpetual hay press.
283. Savage & Son: Ranges, vase, and fountain, mantels, grates, dumb-bells, swedge blocks, tire upsetter, radiator.
284. W C Quimby: Six statues.
285. Mrs Alexander: Vase of pond lilies.
286. Mrs Chas E A Baxter: Specimen bark from the Mariposa big tree "Audrew Johnson," 112 feet in circumference.
287. Miss E Smith: 2 frames colored photographs.
288. S Palmer: Edge tools, ship carpenter's do.

From Entry Book No. 3—400 to 600.

401. J E Firman: pen drawing, ornamented with water colors.
402. H C Langrehr: 2 drawings, 1 beading

machine and 1 burring machine.
403. Ventura Rock Soap Co: 40 boxes rock-soap.
404. P D Paul: 11 patented chimney tops.
405. J J Agnew: 1 cabinet of lava specimens.
406. Moody & Farrish: 1 glass case of wool.
407. S G Hanzsche: 1 child's play house.
408. G A Raymond: 23 cases scales.
409. Redington & Co: 1 stand flavoring extracts.
410. Yates & Co: 5 barrels, 2 baskets and 8 boxes of lamp goods
411. Tubbs & Co: 33 coils of rope, 1 package of hemp.
412. E A Hubbard: 5 desks, 6 chairs.
413. Gladding, McBean & Co: 39 pieces iron-stone sewer pipe.
414. Alta Soap Co: 43 sample boxes of soap, 1 show case sample.
415. I Ash: 1 ornamented fur, 1 show case, samples of dyed furs.
416. C Allison: 3 drill sockets, 4 drills.
417. John A Guffigan: 1 specimen of penmanship.
418. C J Williams: 1 lap board, ladies' sewing table, 1 child's folding toy table.
419. G A Raymond: 9 boxes of scales, 1 combination beam.
420. Cal Bleaching Soap Co: 9 boxes of soap 1 show-case samples soap, 1 show-case samples wool.
421. Pacific Corrugated Stovepipe Co: 25 pieces corrugated elbows.
422. A Roman & Co: a general assortment of desks, blank books, stationery and fine books.
423. C J King of William & Co: a general assortment of hermetically sealed goods. pickles, jellies, etc.
424. W K Vanderslice & Co: a general assort ment of silverware.
425. Main & Winchester: 1 fine silver-mounted gent's saddle, 1 fine side saddle, 6 doz fine buggy whips, 3 doz fine lap robes, 20 sets fine buggy harness, 3 doz fine stage lashes, 2 doz fine stage stock, 3 doz interfering boots, 1 doz fine horse blankets, etc.
426. W S Townsend: 2 silver-plated show-cases of candies.
427. Weed & Kingwell: a general assortment of bells and brass work.
428. Wm Rowland: 1 quilt that was made 96 years ago.
429. Kohler & Ritter: 3 show-cases California make sterling silverware.
430. F Marriott: three fancy rugs.
431. Ed Newmann: 1 pencil drawing, title "The German Poultry Dealer."
432. Herman Glanch, 1 frame fancy penmanship.
433. Lancaster & Northon: 24 pieces of cloth.
434. Hammam Baths: 2 Turkish bedsteads, 2 Turkish stools, 2 Turkish mattrasses, 2 Turkish pillows, 1 Turkish table, 3 Turkish towels, 3 Turkish sheets, 2 Turkish brushes, 2 Turkish gloves, 2 Turkish scrapers.
435. Hocy & Taylor: 3 patent sofa beds
436. Mrs N F Forsman: 1 rug.
437. Mme H Cantel, lace meuder: 1 show-case containing a general assortment of laces and curtains done up.
438. Mrs G F Haustorf: 1 hair wreath; 1 bouquet
439. Albert G Nye: 4 oil paintings in gold frames, 2 pieces sea mosses in frames, 2 pieces sea mosses under glass shades, 1 sign in frame.
440. J Renz: a general assortment of herb bitters, blackberry brandy and bonanza bourbon whiskey.
441. R W Jackson: 2 show-cases abalone shell jewelry.
442. Low & Chartney: 14 pieces cast iron work.
443. Mrs J H Nevins: a hat made of 2,500 pine leaves.
444. Jas S Cosgro & Co: a model of a life boat.
445. J R Gates & Co: a show-case containing a general assortment of drugs, etc.
446. W I Tustin: 1 model of an economy windmill, 1 eagle horse power windmill, 1 economy horse power windmill, 1 dairy queen horse power windmill.
447. Miss Annette Jones, 1 wax wreath.
448. Hall Treadle Manufacturing Co: 6 Home sewing machines, 5 shuttle home sewing machines, 1 Hall treadle jig-saw, 1 Hall treadle grinding machines, 2 models, 1 large and 1 small.
449. T Duffy: 2 rustic vases, 5 rustic stands, different sizes, 1 rustic large double jardeniere, 1 rustic whatnot, 1 rustic table inlaid, 2 rustic sofas, 1 rustic glass fern case, 3 rustic ornamented boxes.
450. Elizabeth Gartou: 1 bedspread woven in the year 1786.
351. George McIntyre: 1 kitchen accomodation chest.
452. D S Hutchinson: 1 glass shade specimens of mechanical dentistry.
453. W Hyde: 2 child swings, 2 adult's swings, 1 swinging hobby horse.
454. Mrs Albert G Nye: prepared sea mosses, 3 moss albums.
455. Mrs. J P Murray: 1 Afghan.
456. Mme Mourgeanna: 1 Turkish fancy spread, 1 fancy rug, 1 embossed picture, toilet articles.
457. Miss A W Baker: a general assortment of Boston dress reform undergarments and combination shoulder brace corsets for ladies and children.
458. Mrs Davison: 1 bouquet hair flowers.
459. Figer Bros: a general assortment of brushes and patent brooms.
460. Mrs R Eppler: an assortment of hair work.
461 Hill & Beebee: samples of the chemical wonder.
462. Mrs D W Rich: 1 frame worsted wreath, 1 glass shade worsted birds.
463. Poheim & Lancaster: a general assortment of cloth and custom made clothes.
464. Flint & Peabody, paper barrels, paper buckets. ¼ barrels, ½ barrels.
465. Mrs Annette Clark: 4 specimens of needle work.
466. John West: 1 Centennial palace squirrel cage, 25 ladies' favorite sewing, cutting, and toy tables.
467. Mrs Sullivan: 1 show case stamps and stamped goods, 1 show case embroidered goods.
468. Woodward's Gardens: 3 cases animals, birds, and specimens of natural history.
469. Mrs Martin Scott: 5 pieces tatting.
470. Chas W Deares: Specimens of poster engraving.
471. J M Brown: 1 piece tappa cloth, 2 pieces coral.
472. E T Bucknam: 8 pair side lights, 2 binnacle lamps, 1 masthead lamp, 1 bulkhead lamp, 4 bracket lamps, 1 swinging lamp, 2 police lamps, 2 hurricane lamps.
473. B H Freeman & Co: stair builder.
474. Mrs Mollunbush; 2 worsted pictures in frames.
475. Mme Celine Lemorine: 1 crochet bedspread.
476. Mrs H Ebright: 2 patchwork quilts.
477. R Alexander: 1 glass shade wax fruit.
478. Hiram Yaw: 8 cow and sheep bells.
479. B C Vantall: 24 Bishop's Directories.
480. W G Halsey & Co: 3 Kendall's hydrostatic safety lamps.
481. Lachman & Jacobi: A general assortmeut of wines and brandy.
482. Conklin & Co: 1 frame stereoscopic picturcs.
483. Wm Stokes: 1 architectural design.
484. Mrs Moore: 2 patchwork quilts.
485. J R Walton: 1 milk wagon and cans.
486. Mrs M Kickens: 1 crochet bedspread, 1 crochet tidy.
487. Mrs G W Tuthill: 1 embroidered quilt.
488. C Boerner: 1 square piano, 1 upright piano.
489. Madame Balcear: 1 frame testimonials, 1 frame photographs, 1 case hair restoratives.
490. Bergman Bros: A general assortment of Sacramento pottery, Rockingham stone, yellow earthenware, and terra cotta.
491. N Clark: A general assortment of Pacific pottery, iron stone, sewer pipe, fire brick, etc.
492. Palmer, Knox & Co: 2 patent suction and pressure blowers.
493. Jas E Gordon: 1 show card handles, 1 show card tacks. 1 show case locks.
494. McCue: 1 platform butcher wagon.
495. Ernest Ransom: 1 straw burning machine.
496. Pierre Dutripon, 1 carved wooden table.
497. Mrs S Wilson: 1 Centennial quilt.
498. Mrs Cole: 1 patchwork quilt.
499. Domestic S M Co: 7 sewing machines, 1 sewing machine table, 2 cases of fashions, 1 lambequin, 6 trimmed suits.
500. Frances J Ware: 2 lace tidies.
501. Edward G Deuniston: 2 show cases of silver ware (plated), 1 amalgamating plate (silver plated).
502. Edward Levy: 1 show case Centennial erasive soap.
503. Miss Frankie Williams: 4 framed pencil sketches.
504. Mrs Heyman: Samples of lace and insertion, hand made.
505. C J Williams: 1 ladies' lap sewing table, walnut.
506. Stockton & Edwards: 4 patent stepladders, 1 ladies' invalid chair, 1 section of ornamental fence.
507 W H Wing & Co: Lasts, finished and unfinished, boot trees, shoe trees, crimps, clamps, and stretchers.
508. Miss E Lentall: 2 crochet tidies, 2 bead pin-cushions
509. Mrs B S Harrison: 1 silk bed quilt, 4,114 pieces.
510. Holbrook, Merrill & Co: A general assortment of stoves and ranges.
511. F Knewing: Quilts, dressing gowns, etc., lined with down from eider ducks.
512. C Donner & C Suhl: 1 hay cutter and grain sheller.
513. C F Marwedel: 1 case of machinists' tools, 2 sample boards of molder's tools and set screws, 2 wire screens.
514. E H Marwedel: 1 sample board of stair rods, 1 sample case of dog collars, pictures, knobs, and nails.
515. Standard Soap Co: 1 glass case toilet soap, sample of soaps and washing powder.
516. Theodore Hermann & Co: 1 Theo Hermann aquarium, 2 show cases shells, selections from the reserve cabinet of T Hermann, 1 show case specimens of bird skins.
517. D B James, Visalia: model of one-track railway and track.
518. B C Brown: 4 cabinet office desks, 2 rotary do, 2 cylinder do, 5 Ordway's patent spring chairs.
519. Golden Gate Academy: 6 framed specimens of penmanship.
520. L W Beauman: Carriage materials, steel, and malleable castings.
523. J D Robertson: 2 pieces of crochet work.
524. Peter Bulte: Model of a ship.

CURE FOR BUCKEYE POISON.—An Ohio farmer wrote to ask if there is any cure for a cow which has been poisoned by eating buckeyes. He had lately lost a valuable milch cow from this cause. A member present had been told that a pint of lard melted and poured down the cow's throat will prevent all serious effects from eating this growth. Another member remembered to have seen this same remedy in print.—*N. Y. Farmers' Club Proceedings.*

CHOICE VOLUMES.—We have a full new set of *Scribner's Monthly*—ten volumes—well bound, for sale at this office. Price, $2 per volume.

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AMERICAN MANURES, OR FARMERS' AND PLANTERS' GUIDE.—Comprises a description of the elements and composition of plants and soils; the theory and practice of composting; the value of stabie manure and waste products, etc. Also, a chemical analysis of the principal manufactured fertilizers—their assumed and real value—and a full expose of the frauds practised upon purchasers. By Wm. H. Bruckner, Ph. D., Phila. Sold at this office. Price, $1.75; post paid.

THE THRESHERS' GUIDE, by D. W. Hoffihan, a practical operator with threshing machinery in California and other States. A book of useful and friendly hints to the grain growers, machine owners and threshing superintendents and workmen. Published at the RURAL PRESS office, in 1872. Price, $1; in limp cloth binding, 75 cents; postage paid.

NOW'S THE TIME.—Everybody interested in mining and agriculture should subscribe for the Centennial year for either the RURAL or the SCIENTIFIC PRESS, published by Dewey & Co., San Francisco. They are the best journals of the kind in this country, and deserve the support of all those whose cause they espouse. Everything of interest connected with the Centennial, appropriate for these papers, will be collated. Send in your names.—*Mountain Messenger.*

IMPROVED.—Dewey & Co., publishers of the MINING AND SCIENTIFIC PRESS and the RURAL PRESS, now have the leaves of both these sixteen page sheets cut and stitched, which is an improvement that all readers of that otherwise inconvenient form of journal will appreciate very much. Every farmer would be a gainer were he to subscribe for the RURAL. It is decidedly a valuable paper, and the SCIENTIFIC PRESS is no less so to mining men.—Iuyo Independent.

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

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BE MORE PARTICULAR.—We can only make the changes requested by the following parties on our mail list, when they, or some one else, send us their P. O. address. Otherwise we would have to look over from 7,000 to 10,000 names. Frank Becker, O. Seawell, L. Boyer, M. Levis, F. Anson, and Antonia Byros.
We also want the address of Wm. Buck.

GOOD PRINTING INK.—We prefer Chas. Eneu Johnson's printing inks, having used them on this paper for the past four years H. S. Crocker & Co., printers, stationers, blank book and paper dealers, are Johnson's S. F. agents.—DEWEY & Co., Publishers.

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$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

(Continued from Page 144.)

than one of equal or even superior merit made at home. Such is, however, often the case, but in no instance, perhaps, more notable than in the article of wine.

General Divisions.

In order to properly study the agricultural exhibit the visitor must first acquaint himself with the manner in which the exhibits are divided. The whole building, including the annexes is divided into ten groups, and these are again sub-divided for the conveniences of the judges, into about 100 classes. For the ordinary student the group division is all that is needed, and these are set off as follows:

1st. "Forest products," including lumber, shingles, timber, dye woods, resin, mosses, nuts, etc. This group is both interesting and instructive, forms a profitable subject for study, and largely exemplifies the beauty of nature's contributions for the happiness and welfare of man, in directions sometimes entirely unaided by human effort.

2d. "Pomology," taking in the whole range of fruit culture. This display is chiefly confined to the pomological annex, a building which until within a week or so has been conspicuous only for its emptiness. The various fruits are now coming in and will continue to the end of the exhibition, each variety being brought prominently forward in its appropriate season.

3d. "Agricultural products." Under this head we have the grains, grasses, field and garden vegetables, tobacco, tea, coffee, seeds, etc. Next to the machinery department, this probably attracts the largest share of attention.

4th. "Land animals."—Horses, cattle, sheep, swine, poultry, etc. For want of proper accommodations within the exhibition inclosure these animals are quartered at some considerable distance from the grounds—a distance which the extreme warm weather admits of being overcome by but very few, even of those who under ordinary circumstances would have taken much pleasure in including this group within the line of their observation and study. The papers say they are some three squares away; but as the only public conveyance thither is by steam cars, and you reach them only at the second station, the squares may be set down as of unusual extent for a city plot.

5th. "Marine animals and fish culture." This group heretofore considered quite outside of agriculture may at the present well be included therein. The great national importance of "fish culture" is now fully acknowledged, and the efforts of Prof. Mather in preparing so full an exhibit of the finny tribes in their natural element is deserving of much commendation. We shall allude more fully to this interesting exhibit in its proper connection.

6th. "Animal and vegetable products used as food or as materials." This forms quite an extensive and interesting group, including flour, sugar, hides, leather, oil, honey, perfumes, wines, liquors, etc.

7th. "Textile substances of vegetable and animal origin," including cotton, wool, flax, silk, etc.

8th. "Agricultural machines and implements." Of these I have already spoken of at some length; but it would require a large volume to do anything like full justice to the subject. Such a volume we presume will appear in due time, under the auspices of the Centennial Commission.

9th. "Agricultural engineering," embracing machinery for draining, grading, extracting stumps, building roads, transportation apparatus, models of farm houses, barns, windmills, etc.,—a wide range of most important material.

10th. "Tillage and general management"—a subject of illimitable extent and of the highest importance to successful farming.

Of course, to study any one department, or institute comparison between similar exhibits from different States or countries, it is necessary to move about the building from one country or from one State and one exhibit to another. In the foreign exhibits each country brings into its own little territory of demarkation all which it has to contribute to each of the 10 groups. In the United States exhibits the machinery from all the States is collected and arranged in groups, so far as is consistent with allowing the different manufacturers to bring together, as nearly as possible, all the different specialties of their manufacture. In addition to, and separate from the machinery, each State has grouped together into as compact form as possible the chief productions for which it is noted. In most instances the exhibits are arranged with a special regard to taste and attractiveness, as a merchant carefully arranges his show windows. The skill displayed in this line is, of itself, well worth a day's study. The best exhibits are not unfrequently greatly underrated by reason of the unattractive or slovenly manner in which they are placed on exhibition. Very little complaint of that character can be found in regard to any department or any building on the Centennial grounds.

Foreign Exhibits.

We have already alluded to the paucity of foreign machinery, and agricultural machinery in particular, on exhibition. England has made her chief effort in machinery hall, the main building and the art gallery. She has given up agricultural hall mainly to her Canadian dominion, which, as already stated, has done itself much credit in every direction. In the English exhibit of cereals, that upon which Englishmen evidently most prided themselves, is a lot of wheat recently produced by a retired English sea captain, and which he has characteristically styled "Mainstay wheat." The exhibitor is taking orders for it at the rate of $2.50 per bushel, for seed, and he informed me that he was selling large quantities at that rate. I begged a small handful which I took round to the Oregon and California exhibits for comparison. It was decidedly inferior, especially to the latter in every respect, as will be apparent to the most casual observer who compares the two. I asked the exhibitor to go with me and make the comparison, but he declined. Perhaps he had been there before. I did not report the result to him; concluded he would find it out himself in a less offensive manner. It is to be hoped that seekers after improved seed wheat, who may be tempted to invest in "Mainstay," will take the trouble to examine the exhibits from the Pacific coast "before purchasing elsewhere."

France.

We must give France the credit of making the most extensive exhibit in agricultural products of any foreign people save the Dominion of Canada. The display of machinery is light, but is superior to that of any other European nation. The display in this section is decidedly "Frenchy." The taste evinced in putting up the great variety of delicate preparations in glass can be equaled by no other people. Case after case is filled with long rows of glass bottles, showing fruits, cooked vegetables, sweet meats made of fruits boiled in syrups, etc. The French act upon the correct theory that the pleasures of sight greatly enhance those of taste. Hence their first endeavor is to please the eye, well knowing that that organ will be sure to telegraph its sensations to both the brain and palate, and prepare the first to direct and the latter to be in perfect readiness to receive the delicacies in store for the gratification of the appetite. Hence the great care with which they prepare their food. Among the food products in this exhibit, tastily displayed, may also be mentioned sardines, macaroni, oil, mustard, etc., also a large collection of chufa, to one bottle of which is appended an interesting account of this rare vegetable delicacy, so much prized by the French gourmand. Conspicuous here may also be seen the display of wines—those from Bordeaux, Burgundy and the champagne districts being largely in the ascendant. Of the latter, there are no less than twenty exhibitors.

Spain.

Perhaps next in interest to the French exhibit is that of Spain. The Spaniards, although not as tasty, are quite as showy as the French. Their space is enclosed with a handsome stained wood structure, with a very ornamental gothic entrance. The walls upon each side are pierced with windows, or what appear to be such, in which are displayed preserved fruits, cereals, etc. The interior is a perfect museum of wines, oil, textiles, ornamental woods, tobacco, in its various forms, gums, etc. Huge logs of mahogany and rosewood, and other bulky products rest upon the floor; while festoons of the broad leaves of its favorite weed, and sheaves of golden grain surround the pillars that support the long array of shelves upon shelves covered with orderly rows of bottles, jars, etc., that rise high toward the pointed roof arches above. Her colonies in the West Indies and Phillipine islands are also there, with their tropical productions of spices, nuts, etc. Tobacco, of course, forms a conspicuous feature in her exhibit, and cigars are shown in almost endless variety and in elegant cases, with prices ranging from $90 to $300 per thousand. The show of wines is scarcely inferior to that of France, and among them are many quite unknown outside of the Iberian Peninsula. Judging from the variety, usefulness and quality of most of her exhibits the visitor is naturally inclined to exclaim: "What a marvellously rich country,"—and so it would be, were it not for the unsettled character of the people and their government. May the peace which they have just attained give this long troubled people a season of rest and material progress which will mark an era in their history, and may the youthful sovereign who has so recently ascended the Spanish throne, be crowned with a long life and a reign as glorious in the arts of peace as was that of his most renowned ancestor in those of war.

Germany.

United, Prussianized Germany, has evidently been too much engrossed in the political affairs of her neighbors to do herself justice at this great American international exhibition. There is no proper display here of her rich and really useful agricultural products. She makes a strong feature of her wine and beer exhibit, and her hops. The arrangement of kegs and bottles against tall, heavy wooden structures look like sections of castle walls and is strongly suggestive of their military art and taste; but this display only gives one a false impression of what German culture and German sentiment is. Pocket handkerchiefs decorated with pictures of her military heroes, do not fairly represent her inventive genius and skillful manufactures. Her monster gun in machinery hall simply makes more prominent the poverty of her really useful exhibits, and is a painful reminder of the debasing and destructive influences of a great national love for military glory, such as now overshadows that naturally great and noble people. No country can be great in both war and peace.

Holland.

Not far off little Holland, of the low lands, the diminutive neighbor of powerful Germany, may be seen in all her quaintness and neatness, with everything in its place and as orderly as a Dutch housewife's kitchen. She was early in position, and her promptness was strongly in contrast with the tardiness of her neighbors. The "Dutch Agricultural Society," and the societies of the States of Gnelderland and Zeeland make a most creditable collective exhibit of fruits and vegetables in glass jars, all put up with characteristic neatness and care. The famous little, round Dutch cheese, fine looking cereals and other productions of her rich lands are also there and compare favorably with other exhibits. Nets and fishing gear and a miniature fishing schooner rigged vessel, together with numerous household articles of home-make attest the skill, taste and industry of this thriving people. A marked peculiarity of the miniature vessel shown consists in the after or main mast being placed almost directly over the rudder post. The breadth of the model was nearly one-half its length. Prominent in this exhibit was a large quantity and great variety of the fancy, spicy and odorous drinks, so largely made there and so generally sought after by gourmands both male and female, on the continent, but seldom used elsewhere.

W. B. E.

Land Law Decisions.

A dispatch from Washington, dated August 17th, is as follows:

Secretary Chandler has finally determined what his decision will be in respect to the selections of indemnity school lands in California. The points of the decision, which will be rendered to-morrow, are as follows: The department will insist upon the ruling made in the Selby case, as far as it affects selections made subsequent to its date and hereafter, which determines that no selections of indemnity lands will be valid unless made after final approval of surveys within which the State is entitled to indemnity; but in respect to selections made prior to the decision in the Selby case, the department will hold, first, that preemption and homestead settlements made in good faith upon lands selected by the State prior to such selections shall be protected, and entries made subsequent to such selections shall not be respected. Second, all selections made by the State after surveys by the surveyor-general shall be confirmed, unless subsequent surveys shall show that the lands for which such indemnity is claimed are still the property of the State; in which case the State may substitute lands, and return the selections made prior to the Selby decision. This practically confirms the title of all purchases from the State.

The following decisions by the Commissioner of the General Land Office are taken from *Copp's Land Owner*, for August:

Lode claims in Montana, located under the Territorial Act of December 26th, 1854, are entitled to 50 feet in width of surface ground on each side of the lode in addition of the width of the lode.

The portion of a mining claim sold to an alien cannot be patented while such owner is an alien, but on his declaration to become a citizen his right dates back to the purchase, and he may thereupon secure a United States patent for his claim.

Regular army officers, who served during the rebellion, may initiate homestead entry while in the army, but on making final proof must show at least one year's residence on the land entered, if they served four years during the late war.

Prairie lands, or lands not prairie but naturally devoid of timber, are subject to the operation of timber culture laws. Where a party applies to enter under the timber culture laws, land which appears on the township plot as already timbered, and is informed that he must disprove such apparent character, his application reserves the mentioned tract for a reasonable time from future disposition to any other claimant.

General News Items.

Small-pox seems to be on the decrease.

Employees of the New York and New Jersey railroad have struck.

A registry clerk in the San Francisco post-office has been arrested for robbing the mails.

Two murders by "Molly Maguires" occurred in the Pennsylvania mining regions this week.

Fires occurred this week at Los Angeles San Benito, Livermore, Tres Pinos, Grangeville; also one near Lathrop, in which a boy was burned to death.

The little dory *Centennial*, which started across the Atlantic from Gloucester, Mass., has arrived safely in Liverpool. There was only one man on board during the trip.

Eugene N. Rollinson, formerly senior partner of one of the principal brokers of Daniel Drew, has submitted a partial transcript to the Register in Bankruptcy. The entries in the books show that the gross amount of transactions between Drew and the firm were $75,000,000, which extended over a period of five years.

Wool Production of the United States.—The total wool clip of last year was 193,000,000 pounds; this year it will probably fall a little short of this. Yet in keeping up this aggregate, States west of the Mississippi have increased their productions some 15,000,000 pounds, an amount equal to the decrease in the States east of the Mississippi. The better class of cloth wools are falling off, while inferior qualities are increasing.

Patents & Inventions.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

From Official Reports for the Mining and Scientific Press, Dewey & Co., Publishers and U. S. and Foreign Patent Agents.]

For Week Ending August 15th, 1876.

Wagon Covers.—Charles Cremer, Red Bluff, Cal.

Furnaces for Roasting Ores.—Horatio G. Livermore, S. F.

Brick and Mortar Elevators.—Thomas Mann, Portland, Oregon.

Expansible Gates for Sewers.—Thomas Brady and Dennis R. Manniug, S. F.

Grain Separators.—Thomas Jory and John W. Jory, Salem, Oregon.

Harness Buckles—William Fletcher Whitney, Ukiah, Cal.

Designs.

Center Piece.—Samuel Kellet, S. F.

——*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

Note.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

One Majority.—The governor of Massachusetts has been twice elected by a majority of one. A single vote sent Oliver Cromwell to the "Long Parliament," Charles Stuart to the scaffold, revolutionized England and made Great Britain free. One vote gave us the tariff of 1842, and one vote made the tariff of 1846. One vote gave us Texas and war with Mexico, purchased California, turned thither the tide of emigration and will change the destiny of the world. One vote elected the Hon. David Belden county judge of Nevada county, years ago, and that one vote was our own, the first we ever cast. It placed on the judicial bench one who is now conceded to be an erudite and conscientious judge, who was then but an obscure and no considered talented lawyer. These facts should be a convincing proof to all that the influence of one man, be he high or lowly in station, has its effect on the destinies of the world, and every act should be well weighed, every opinion carefully formed before its utterance.

Since the inauguration of the Suez canal rain falls regularly along its line, where such a blessing was unknown before. Vegetation is quite abundant in consequence of the phenomenon.

Woodward's Gardens embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

Sewing Machines.—We have a first-class machine we wish to dispose of on favorable terms. Apply at this office.

The Immigrant Bureau Re-Organized.

A Free Employment and General Information Office.

The 'The Peoples' and Grangers' Immigrant Bureau, which accomplished so much good last year, has been re-organized under a new Board of Directors, and will continue its good work of attracting immigration and providing for the necessities of the new comers free of charge. Four thousand and eighty-two situations have been found for applicants since May, 1875. The Bureau expects to receive orders for all the help that may be required in the country the present season. Four hundred persons visit the office daily. Descriptions of land, maps, pamphlets, circulars, and local newspapers, should be sent to the Bureau. They will be freely distributed among inquirers. The Bureau was established by the State Grange, and being supported *entirely* by subscription No charge is made for any business transacted. The following gentlemen are on the Board of Directors for the ensuing year: Mayor A. J Bryant, Chairman; I Friedlander, C. Adolphe Low, Mark L. McDonald, Amos Adams, J. Regensburger, C. D. Sullivan, Charles Lux George H. Eggers, J. C. Wilmerding, C. J. Cressy, John Morton, Col. A. Wason, Hon. F. A. Gibbs, F. B. Taylor, C. H. Dennison, Claus Speckles, Charles Kohler, A. W. Thompson. All communications should be addressed, J. Earl, Manager, Immigrant Bureau, Grangers' Building, 40 California street, San Francisco.

Thanks for Prompt Attention.

Stockton, June 26, 1875.

Messrs. Dewey & Co., S. F.:—

I have received the patent for my invention in wagon brakes, which you prosecuted for me; patented May 11, 1875—No. 163,046. Thanks to you for your prompt attention to the case; you will hereafter be my attorneys in such cases. I recommend all inventors on the Pacific coast to give you a call, which I think they will never have any cause to regret. Very truly yours,

GEO. G. BUCKLAND,
Stockton, Cal.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Wednesday, Aug. 23d, 1876.

The week has been fairly active in many branches of trade. The special features are noted elsewhere under propsr head lines.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	Cal. Averaoe.	Club.
Thursday.....	9s 1d@ 9s 4d	9s 5d@10s —
Friday.....	9s 1d@ 9s 4d	9s 5d@10s 1d
Saturday.....	9s 1d@ 9s 4d	9s 5d@10s —
Monday.....	9s 1d@ 9s 4d	9s 5d@10s —
Tuesday.....	9s 1d@ 9s 4d	9s 5d@10s —
Wednesday....	9s 1d@ 9s 4d	9s 5d@10s —

To-day's cahle quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	10s 9d@11s —	11s 3d@12s —
1875	11s 2d@11s 5d	11s 6d @12s —
1876	9s 1d@ 9s 4d	9s 5d@10s —

The Foreign Review.

A London dispatch, dated August 23d, brings the *Mark Lane Express* comments upon the grain trade as follows: "Harvesting is now well advanced. Numerous reports from various parts of the kingdom have arrived; some prognosticate that the crop will be light, others speak of a fair or even good average yield. These statements must be received with caution, as the averages in different localities vary from 3½ to 7¼ per acre, whereas, statistically speaking, 30 bushels is usually eonsidered the standard. Barley and Beans are likely to turn out well. Peas give satisfaction. Oats are reported to he worst of all. Trade has been dull, owing to uncertainty as to the yield of home crops and foreign supplies. We think the latter will he large, since Australia is exporting very freely, although reports of California crops may have heen exaggerated. The predilection of millers for the former class of grain is still dominant. Maize coutinues in request, especially for forward delivery, as the quantity afloat now is considerably diminished. Oats have slightly improved."

The New York Trade.

A New York dispatch, dated August 21st, says: The grain trade of the week has been very dull and prices irregular. Exports of Wheat have beeu uncommonly small, owing to the scarcity of sound qualities and low hlds of shippers: but with a decided falling off in receipts and visible supply, the market has shown a stronger tone for the last day or two. Steamer quality spring has sold at 90c to $1.05; fair to prime, No. 1, $1.15@1.18; new No. 2 Iowa, weighing 55 pounds to the bushel, brought $1.01; red winter, $1@1 1c, and new amber and white winter, $1.20@1.35, the best samples of this year's crop thus far to hand holug very hand some. The harvest is ahout over throughout the West, and the result is quite equal to early expectatione. The European harvests are well advanced and in the lead ing producing countries it is pronouuced not far from an average, in spite of inundatione and atmoepheric accidents in some localities. From a geueral survey of the whole field, the leading authorities conclude that the ensning harvesting year is one of moderate prices for food. Corn has attracted more attention than Wheat during the week. Shipping grades are higher, closing at 57@59c. Flour lower and dull. There has been no movement in that staple. The Barley crop of America and Canada is pronounced above the average quality, but samplee received are light of weight.

The Chicago Trade.

A Chicago dispatch, dated August 19th, says: The produce markets have shown little life since last week. Wheat cloeed to-day at 87 for No. 2 spring, against 85½ last Saturday. Towards the close of the week a hetter demand sprung up here, doubtless cansed by the increased firmness in New York and a strengthened tone in the English markets. The receipts have been somewhat larger, but are still insignificant, being for the week 88,000 bushels, against 219,000 bushele in 1875. Very little of the new Wheat has yet been threshed, but what has gone through the machines fully realized the predictions as to its fine milling quality. The weather continues fine, and rain hae fallen in small quantity without doing damage to the crops not fully secured. Winter Wheat, which doee not figure much in this market, has suffered much more than spring, but it will be a good yield wherever grown. Corn is still coming in great quantities, and prices are not materialy ohanged. Oats are steady, with prospects of a dull season. The indications just now are for still lower prices later or in the fall for all cereals, though there seems a reasonable proepect for a temporary rise in the Interim. The prevailing depression in all kinds of business exerts its influence ou 'change, and both cliques are more careful of committing themselves to a decided move than they would he in more favorable times.

Freights and Charters.

The demand from Wheat shippers, saye the *Post*, for epot tonnage has heen slow during the week. Owners have etoutly adhered to £3 to the United Kingdom, but at the close there is more disposition to accept £2 15s. Available Wheat tonnage has arrived freely and increased the list of disengaged vessels in port. Wheat is freely arriving at Vallejo and at Oakland wharf, and chartered vessels are apparently having quick dispatch. At thie writing we have in port 48,437 tons of tonnage engaged for Wheat, and 5,636 tons for miscellaneous purposee. Engaged tonnage to port, 31,483 tons. The engagements of the week have been as follows: Br ship *Nerus*, 1,108 tone, Wheat to Cork for ordere, private; Br bark *Abbey Cowper*, 699, Wheat to Cork for orders, prior to arrival, £3 10s; ship *Brown Brothers*, 1,493, Wheat to Havre, £2 14s, or Antwerp, £2 18s; ship *Louisiana*, 1,436, Wheat to Liverpool, prior to arrival, £3 5s; ship *Golden Fleece*, 1,535, Wheat to Cork for orders, £2 10s; Br ship *Blairhoyle*, 1,291, Wheat to Cork for orders, prior to arrival, £3 7s 6d; Br ship *Grasmere*, 1,246, Wheat to Cork, prior to arrival, £3 5s; Br bark *Lynton*, 765, Wheat to Cork for orders, prior to arrival, private; ship *Anna Camp*, 1,252, to load Wheat to Cork for orders, or Liverpool, Duhlin, Brisfol or Havre direct; and the ehip *Sterling*, 1,731 tons, to load Wheat to Livorpool, both prior to arrival and on private terms. The British ship *City of Sparta*, now at Portland, Oregon, wae chartered prior to arrival to load Wheat to Liverpool at £3 10s.

Eastern Wool Markets.

NEW YORK, August 19.—The active demand for Wool that commenced some threo weeks since has continued, and again there is an active and large business to report. Owing to reduced supplies and the evident desire of manufacturers to accumulate sufficient stock to carry them through the fall, dealers are exceedingly firm in their demand for higher prices, and though these are not readily obtained, there is a disposition shown to meet holders at market ratee. There are now no choice lote of Spring California in this market that remain unsold. The balance of stock consists of burry and slightly burry, for which holdcrs ask 18@23c. Fleece Wool continues to meet with oonsiderable inquiry, but the views of holders are somewbat above those of purchasers, XX Ohio being held at 41@42c. Texas is in fair supply and good demand; prices are well supported. Foreign descriptions are in a great measure neglected, but at this moment the supply is light. Sales for the week are 4,000 lbs. Australian at about 45@46c.; 44,000 lbs. Cape, 32½@33c.; 538,000 lbs. Spring California, 18@24c.; 8,500 lbs. Nevada, 17c.; 50,000 lbs. Colorado, 17@18c.; 237,000 lbs. Texas at 15@18c. for Western. and 18@23c. for Eastern; 110,000 lbs. Georgia and Lake, at about 25c.; 122,000 lbs. XX Ohio fleece, 38@40c.; 40,000 lbs. washed Western do., 38@36c.; 10,000 lbs. unwashed do., part at 25@51c. Sales of 30,000 lbs. Oregon, 5,000 lbs. fall California, 40,000 lbs. pulled do., 39,000 lbs. super and X pulled do., 30 bags No. 1 do., 20 do., hlack do., and 10 do., shearlings, all on private terms.

BOSTON, August 19.—Tbe demand for wool contiaues good and prices well sustalued, being a shade higher for all desirahle fleeces. The transactions were 2,283,500 pounds. The sales would have heen much larger were it not for comparatively small amounts of fleeces offering. Sales of Ohio and Pennsylvania fleeces have been 419,000 pounds, almost exclusively fine wools, and include medium and extra at 35@38 cents; some desirahle No. 1 at 40c.; XX at 3!@40c.; XX and super, 40@42½c.; from 40 to 42½c. has been offered and refused for large lots of XX. Michigan and Wisconsin wools firm at 32@36c. for medium and No. 1, witn more inquiry for medium; buyers are now turning their attention to medium and No. 1. Combing and delaine have been in better demand, with sales of 28,000 lbs. Prices have advanced from 3 to 5c. on opening prices. Some lots of domestic combing have been sold as high as 47½, 48 and 50c., and fine delaiues have heen sold to some extent at 38@42½c. Most desirable lots of domestic combing are now firm at 48@50c.; round lots are more saleable and command higher prices than small lots. California still meets with ready sale, and extreme prices continue to be obtained for all choice and desirable lots, and further sales have been made as high as 20@30c. for choice, but inferior and burry can only be forced off at low figures. Sales of the week have been nearly 1 000,000 pounds. Pulled wools have been rather quiet, sales of the week comprising only 171,000 pounds; but prices remain the same. The bulk of sales of super and X have been in ranges of 32c@39c.; the latter for choice Eastern and Maine.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week Aug. 2.	Week Aug. 9	Week Aug. 16.	Week Aug. 23.
Flour, quarter sacks	34,412	153,061	46,352	35,278
Wheat, centals.....	269,425	261,400	272,236	272,434
Barley, centals.....	64,955	65,018	58,170	51,156
Beans, sacks.....	415	40	467	226
Corn, centals.....	2,342	3,001	1,227	1,659
Oats, centals.....	3,103	5,549	3,517	7,403
Potatoes, sacks.....	13,496	14,254	15,275	22,013
Onions, sacks.....	1,086	1,178	1,111	1,996
Wool, bales.....	2,059	2,360	2,619	3,205
Hops, bales.....	1	38	23	86
Hay, bales.....	2,983	2,691	1,671	3,533

Bags—There is reported a sort of ring resurrection in the Bag trade. The old ring was driven to desperate straights, and the price for Standard Wheat Bags as we have noted, has been steadily decliniug. Last Friday night, it is reported, a "pool" was formed of six large houses dealing in Bags, and they claim to hold three-quarters of the stock here and to arrive. Whether this is true or not we cannot tell. The immediate effect of the combination is a holding of Bags at an advance of ¼c over last week's prices, and the speculators declare that they will completely turn back the recent decline. Such are the facts as we hear them.

Barley—Under heavy receipts the prices for Barley have declined during the week. The range for Feed Barley is now quotable from 80c to $1. We note sales: 420 sks poor Feed, 80c; 400 do good do, 90c, both lots silver; 350 sks good Feed, $1; 100 do Coast do, 95c, both lots silver; 300 do choice old Brewing, $1.32½, half silver; 4,000 do new Brewing for Portland, private, 2,000 sks Feed, 90c, gold; 1,600 do do, 95c, silver; 500 do old Brewing, $.10; 315 do do, $1.20 per ctl, half silver; 1,850 sks Coast Feed at 95c; 500 do Bay do, 92½c, both silver; and 2,000 ctls Bay do, 90c, gold; 500 do light old Brewing, $1.10; 300 do good do, $1.20 per ctl, both half silver; 400 sks Coast at 90c; 200 do bright do, 92½c; 400 do Bay do, 95c, silver; 700 sks good Feed, 95c; 200 do fair do, 92½; 400 do ordinary do, 90c, all silver; 200 do good do, 93c, half silver; 1,200 do do, 90c per ctl, gold. There is noted some inquiry and moderate shipments to Chicago and St. Louis, but although the rate of Freight has been reduced to $1 55; the margin is too small to induce an important movement.

Beans—Beane are still nominal and in light receipt.

Corn—Corn is unchanged in price. The market may be noted quiet and steady. Sales: 100 sks large Yellow at $1.25 per ctl, silver; 200 sks small Yellow, $1.27½ per ctl, half silver; 600 eks large Yellow at $1.22½, half silver; 140 do large White, $1.35, silver; 200 sks fair White, $1 25 per ctl, silver.

Dairy Produce—Fresh Butter is arriving more sparingly, and is advaucing as shown by quotations below. The trade is brightening also under the less supplies.

Eggs—Eggs are ruling quiet at last week's prices.

Feed—Hay preserves its former range. We note sales: 41 tons fair Oat, $10; 36 do fair Wheat, $12; 34 tons choice Wheat, $13; 14 tons good Oat, $12.50; 44 tons fair Oat, $9; 40 tons Wheat aud Oat, $10; 25 do choice Wheat; $13; 38 do good Oat and Wheat, $11. Choice Wheat is still quoted at $13.50 per ton. Bran, Middlings and other ground Feeds are unchanged.

Fruit—The markot is filled with Grapes and prices are low. Plums are also in full supply and slow of sale. Peaches of later kinds are plenty and cheap.

Fish—Fish is rather bigher for all sorts. King Fish are now selling at 20c ₱ lb.

Hops—Receipts during the week have been larger than usual, but we do not hear of any change from quoted prices. The New York market is quoted by Emmet Wells for the week onding August 11th as follows:

A fair trade has been done during the week in choice grades; 20 cents having been paid. Low and medium gradee have not been affected by the rise in price of choice, and are only in moderate demand. Reports from the growing crop in this country are about the eame as last week, with the exception of some sections where lice have made their appearance. Reports from England are more favorable than they were a week ago. Continental reports are still unfavorable. The first bale of new hops was received.

We learn from the *Inter-Ocean* that the first bale of the new crop has been received in Chicago from Wisconsin. The quality was very fine, and the lot was held at 30c. The crop is about one week earlier than last year.

Oats—Oats are quiet and evenly balanced between supply and demand. We note sales: 75 sks @ $1.62½, half silver; 400 sks choice Feed, $1.72½; 200 do fair do, $1.50 ₱ ctl, half silver; 500 sks good to choice Feed, $1 60@$1.75; 100 do good do, $1.65; 600 sks choice Feed in two lots at $1.70@$1.72½; 200 sks Feed, $1.65 ₱ ctl.

Onions—Onions are holding their price with a little better range for Stocktons.

Potatoes—Potatoes have improved and are quotable higher for good qualities. The China steamer carried 2,500 sacks, which cleared the market of ordinary grades. Prices will be found below.

Poultry—Poultry has experieuced a slight decline during the week.

Provisions—Beef and Mutton are abundant and low, the quality is generally good. Pork is in strong demand but the supply seems to he increasing rapidly during the last few days, and prices have an advanced tendency. Smoked Beef, Hams and Bacon are firm, prices steady and demand large.

Rye—Rye is held for $1.50 per ctl. The last sale was at $1.40 gold.

Vegetables—The market is still glutted with Cantaloupes, and by the case the top price is 50 cents, though a few selected from a case occasionally bring $1@$1.50 ₱ doz. Sweet potatoes of fine quality are abundant.

Wheat—Sales of Wheat have been at former prices. We quote the following: 3,000 sks choice Milling, $1.57½ ₱ ctl.; 3,000 sks shipping, $1.50; 3,000 do choice do, $1.52½; 400 do Milling, $1,52½; 400 do good do, $1.55; 400 ctls choice Milling, $1.55; 400 do fair do, $1.52½; 16,000 ctls shipping in two lots at $1.50@$1.52½; 2,000 do do, $1.45; 2,200 do do, $1.50; 182 Superfine $1.37½; 175 do do, $1.35; 3,000 ctls Shipping, $1.52½ ₱ ctl.; 300 do, $1.50; 800 do Milling, $1.52½@$1.55; 5,000 sks good to choice Shipping, alongside, at $1 50@$1.52½; 8,000 sks good Milling at $1.55; 1,000 do choice do, $1.57½; 1 000 sks Milling at $1.52½; 400 do Shipping, at $1.52½; 200 do do $1.50 ₱ cental.

Wool—New fall Wools are arriving freely and sales have been made on the basis of 13@14c. for good Lamb, 10@12c. for fall and 9c. for burry fall. During the past week three leading houses report sales of 325,000 lbs. at 11@20c. for Spring clip; 14½@16c. for Eastern Oregon, and 19@21c. for Valley do. We note sales of 200 bales new fall clip, at 10@12½c.; ₱ lb. 6,000 lbs. good fall 13@14; 38,000 lbs. fall 10@12½; 152,000 Spring 14½@17½.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., Aug. 23, 1876

BEANS.

Bayo, ₱ ctl.....	4 00@4 50
Butter.....	1 9?@2 25
Pea	1 92½@ —
Pink.....	2 50@3 00
Sm'l white.....	1 60@1 90
Lima.....	1 90 @2 00

BROOM CORN.

Common, ₱ lb..	2 @ 3
Choice, do	4 @ 5

COTTON.

Cotton, ₱ lb.....	15 @ 18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	35 @ 37½
Point Reyes.....	— @ 40
Pickle Roll.....	30 @ 32½
Firkin.....	25 @ 30
Wat'n Reserve.	16 @ 22½
New York.....	— @ —

CHEESE.

Cheese, Cal., lb..	10 @ 15
do Old.....	— @ —
Eastern	12½@ 15

EGGS.

Cal. fresh ₱ doz	35 @ 37½
Ducks'.....	— @ 35
Oregon..... ..	32 @ 35
Eastern.....	21 @ —

FEED.

Bran, per ton....	17 00 @17 50
Corn Meal.....	28 00 @29 00
Hay	1 00 @13 00
Middings 24	00 @— —
Oil cake meal...	— @33 50
Straw, ₱ bale..	55 @ 60

FLOUR.

Extra ₱ bbl....5	50 @5 87½
Superfine.....	4 50 @4 75
Graham, ₱ bbl..5	50 @ —

FRESH MEAT.

Beef 1st quality lb.	6 @ 7½
Second do	5 @ 5¾
Third do..	3½ @ 4
Spring Lamb....	5½ @ 6
Mutton.....	3½ @ 4
Pork, undressed	7 @ 7½
do. dressed....	10 @ 16½
Veal.	5½ @ 6
Milk Calves....	5½@ 7

GRAIN, ETC.

Barley, feed ctl—	80 @ 1 00
do brewing.	1 20 @ 1 25
Chevalier.....	1 25 @ 1 35
Corn, White...	1 25 @ 1 30
do Yellow....	1 25 @ 1 3?
Oats,.....	1 50 @ 1 75
Milling.....	1 80 @ 2 00
Rye	1 40 @ 1 50
Wheat shipping	1 5? @1 52½
do milling..	1 55 @1 60

HIDES.

Hides, dry.....	10 @ 12½
do wet salted	6 @ 6½

HONEY, ETC.

Beeswax, per lb..	25 @ 30
Honey in comb..	10 @ 12½
do Strained....	6 @ 8

HOPS.

Old crop.....	10 @ 13

NUTS—Jobbing.

Alm'ns n'rd sh'l ₱ lb	8 @ 10
do, soft sh'l...	18 @ 20
Brazil do.....	14 @ 16
Cal. Walnuts....	12 @ 14
Chile Walnuts..	11 @ 12½
Peanuts per lb..	8 @ 9
Filberts.....	15 @ 16
Pecanuts	17 @ 18

ONIONS.

Union City ctl.	— @—
Stockton	50 @— 75
New Red.....	50 @— —
Silver Skins....	60 @— 70

POTATOES.

Petaluma, ₱ ctl.	— @ —
Salt Lake.....	— @ —
Humboldt.....	— @ —
Half Moon bay..	80 @1 07½
Early Rose new	75 @ —
Sweet	1 50 @ —

POULTRY & GAME.

Hens per dz...	8 00 @9 00
Roosters.....	5 00 @6 50
Broilers..... ..	3 00 @4 50
Ducks, tame, dz	5 00 @7 00
do Muscovy..	8 00 @9 00
do Canvas'....	— @8 00
Geese, per pair	2 00 @2 25
Wild Gray dz	3 00 @4 00
White.....	1 50 @2 00
Turkeys, Live, lb	15 @ 18
do Dressed	20 @ 24
Quail, per doz...	— @ —
Snipe, Eng., doz.	— @— —
Doves, per dozen	50 @ 57
Rabbits.....	1 00 @1 00
Hare, per doz.	1 50 @2 00

PROVISIONS.

Cal. Bacon, L't, lb	16 @ 17
do Medium ...	15½@ 16
do Heavy.....	— @ 15½
Lard.....	14 @ 16½
Cal. Smoked Beef	10 @ 12½
Eastern do....	9 @ 10
East'rn Should's	— @ 10
Hams, Cal.....	— @ 15
do Armour	— @ 16½
do Worster's.	18½@ 19
do Dupee's..	18½ @ 19
do Davis Bros'	18½ @ 19

SEEDS.

Alfalfa, Chile lb.	8 @ 10
do California.	11 @ 12
Canary.....	10 @ 12
Clover Red.....	— @ 22
do White	50 @ 55
Cotton.....	6 @ 10
Flaxseed.....	— @ 3¼
Hemp.....	12½@ —
Italian Rye Grass	25 @ 30
Perennial do....	20 @ 30
Millet.....	10 @ 12
Mustard, white,	3 @ 3½
do. Brown.....	3 @ 3½
Rape.....	7 @ 9
Ky. Blue Grass..	30 @ —
do 2d quality..	29 @ —
Sweet V Grass..	— @ 75
Orchard do....	30 @ 35
Red Top do....	— @ 25
Hungarian do	8 @ 12
Lawn do.....	20 @ —
Mesquit do...	20 @ 25
Timothy.....	11 @ 13

TALLOW.

Crude, ₱ lb.....	5 @ 5½
Refined	8¾ @ 9

WOOL, ETC.

SPRING—	
Seedy, ₱ lb.....	9 @ 12½
Choice long free	17 @ 18
do Northern...	19 @ 20
do short.....	13 @ 16½
Burry.	10 @ 14
Oregon	14 @ 18
Fall Clip.....	.8@13

RETAIL GROCERIES, ETC.

WEDNESDAY, M., Aug. 23, 1876.

Butter, Cal. ch'ice	30 @37
Cheese, lb.....	18 @20
Eastern.....	25 @30
Lard, Cal., lb.....	— @18
Eastern.....	20 @25
Flour, ex. fam, bl	6 25 @6 50
Corn Meal, lb.....	2½@ 3
Sugar, Wh. crsh'd	12½@13½
do lt. brown, lb	8 @ 9½
Coffee, green, lb..	23 @ 35
Tea, fine blk, 50, 65, 75	@1 00
Tea finest Jap, 55, 75, 90	@1 00
Candles, Adamant'e	15@ 25
Soap, Cal., lb....	7 @ 10
Rice, lb.....	8 @ 12½
Yeast Powders..	1 5 @2 00
Bowen Bro. large can per doz....	5 00 @— —
Small, do	2 50 @— —
Bowen's Cream Tartar lb.....	— @ 75
Cal'd Oysters, dz.	2 00 @3 50
Syrup, S F. Gol'n.	75 @1 00
Dried Apples....	10 @ 12
Dr'd Cur. Prunes	12½ @ 14
Dr'd Figs, Cal...	9 @ 10
Dr'd Peaches....	11 @ 15½
Oils, Kerosene ..	30 @ 40
Wines, Old Port.	3 50 @5 00
do Fr. Claret..	1 00 @2 50
do Cal. dz. bot.	3 00 @4 50
Whisky, O.K, gal.	3 50 @5 00
Fr. Brandy.....	4 00 @8 00

GENERAL MERCHANDISE.

WHOLESALE.

WEDNESDAY M., Aug. 23, 1876.

BAGS.

Eng. Stand Wht..	12 @12½
Neville & Co's...	
Hand Sewed....	12 @12½
24x36.....	— @—
24x40.....	— @—
Machine do 24x49.	— @15½
" " 23x40.	14½@—
" " 22x40.	13 @—
" " 22x36.	11½@12
Flour Sacks ½s...	9 @11
" " ¼s.....	6 @ 7
" " ⅛s.....	4½@ 5
Hessian 60-10.....	12¾@14½
do 45-in.....	10 @—
do 40-in	8½@—
Wool Sacks, 3½ lbs.	45 @50
do 4 " .	50 @52½
Stand. Gunnies...	11½@12
single seam do..	— @—
Bean Bags.....	7 @ 8

CANNED GOODS.

Ass't'd Pie Fruits in 2½ ₱ cans.	2 75 @ 3 60
do Table do...	3 75 @ 4 25
Jams & Jellies	4 25 @ —
Pickles ½ gl..	— @ 3 50
Sardines, qr box	1 65 @ 1 90
do hf boxes.	3 00 @— —

COAL—Jobbing.

Australian, ₱ ton	8 75 @ 9 00
Coos Bay.....	— @ 9 00
Bellingham Bay.	— @ 9 00
Seattle.....	— @ 9 00
Cumberl'd.....	—14 00 @16 00
Mt. Diablo.....	5 75 @7 75
Lehigh	— @22 00
Liverpool.....	10 00 @11 00
West Hartley...	— @14 00
Scotch.....	9 00 @10 00
Scranton	13 00 @16 00
Vancouver's Isl.	10 50 @ 2 00
Charcoal, ₱ sk...	75 @ —
Coke, ₱ bbl.....	— @ 60

COFFEE.

Sandwich Island	— @ 21½
Costa Rica per lb	22½@ —
Guatemala.....	— @ 22½
Java.....	— @ 30
Manilla.....	— @ 21½
Ground in ca....	25 @ —
Chicory.....	27 @ —

FISH.

Sac. Dry Cod, new	— @ 6½
cases..	6 @ 7½
do boneless....	8½@ 10
Eastern Cod.....	8 @ 8¼
Salmon in bbls..7	25 @ —
do ½ bbls 3	75 @4 00
do 2lb cans..2	01 @ —
do 1lb cans..1	35 @ —
do Col. R. ½b, 5	00 @5 50
Pick. Cod, bbls.	22 00 @ —
do ½ bbls	11 00 @ —
Mack'l, No.1, ½bls	11 00 @ —
" Extra....	— @12 00
" in kits....	1 90 @2 25
" Ex mess. 3	50 @4 00
" Ex mess. ½bls	—@12 00
Pio'd Herr'g, hx..	3 00 @ 3 50
Bos. Sm'k'd Her'g	40 @ 50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl.....	2 00@ 2 25
Cement, Rosendale, do.....	2 75@ 3 50
do Portland do	4 75@ 5 50
Plaster, Golden Gate Mills....	3 00@ 3 25
Land Plaster, ₱ ton.....	10 00@12 50

MISCELLANEOUS.

Pulu.....	—@ 7½

NAILS.

Assorted size, keg	3 75 @4 00

OILS.

Pacific Glue Co	
Neat F't No. 1.	1 00 @ 90
Pure.....	— @ —
Castor Oil, No.1..	— @ 95
Baker's A A....	— @1 15
Cocoanut.....	— @ 60
Olive Plagniol..	5 50 @5 75
do Possel.....	4 75 @5 00
Palm lb.....	9 @ —
Linseed, raw....	— @ 62½
do boiled.....	— @ 67½
China nut in os..	65 @ —
Sperm, crude..	1 60 @1 65
do bleached.	1 90 @2 25
Coast Whales ..	47½@ 50
Polar, refined..	— @ 50
Lard.....	— @1 20
Oleophine	— @ 28
Osvoe's Bril't...	25 @ 27
Long Island....	— @ 25
Eureka.....	26 @ 27
Devoe's Petro'm	25 @ 27½
Barrel kerosene	23 @ 25
Olive.....	—@3 50
Downer Kerose'e	— @ 37½
Elaine.....	38 @ —
Gas Light Oil..	23 @ 25

PAINTS.

Pure White Lead	9¾ @10¼
Whiting	— @ 1¾
Putty.....	4 @ 5
Chalk.....	— @ 1½
Paris White.....	— @ 2½
Ochre.....	— @ 3½
Venetian Red...	— @ 3½
Red Lead.....	10 @ 11
Litharge.....	10 @ 11
Eng. Vermillion	—@1 25
Averill Chemical Paint, per gal.	
White & tints.	2 00 @2 40
Green, Blue & Ch Yellow..	3 00 @3 50
Light Red...	3 00 @3 50
Metallic Roof.	1 30 @1 80

RICE.

China No. 1....	5½@ 6
Hawaiian, ₱ lb..	7½@ 7¾
Carolina, ₱ lb..	10 @ —

SALT.

Cal. Bay, per ton	10 00@14 00
do Common..	5 00@ 7 00
Carmen Island..	12 00@15 00
Liverpool fine...	22 50@25 00

SOAP.

Castile ₱ lb....	10 @ 11¼
Common brands..	4½@ 6
Fancy do ..	7 @ 9

CANDLES.

Grant's.....	16 @ 16½
Mitchell's.....	18 @ 20

SPICES.

Cloves ₱ lb.....	45 @ 47½
Cassia.....	23½ @ 26½
Citron.....	28 @ 30
Nutmegs.....	95 @ 97½
Whole Pepper..	14½ @ 1½
Pimento.....	16 @ 17½
Gr'nd Allsp'rd &	—@1 12
do Cassia do..	—@1 50
do Cloves do..	—@1 50
do Mustard do	—@1 20
do Ginger do..	—@1 00
do Pepper do..	—@1 00
do Mace do...	—@2 00
Bowen's Pure Ground ₱ lb	— @ 50

SUGAR, ETC.

Cal. Cube per lb..	— @ 12¼
Circle A crushed	— @ 12
Powdered.....	— @ 12¼
Fine crushed...	— @ 12
Granulated.....	— @ 11¾
Golden C.....	— @ 10½
Hawaiian.....	10 @ 11
Cal. Syrup in kgs	— @ 62½
Hawaiian Molasses.....	25 @ 27½

TEA.

Oolong, Canton, lb	19 @ 25
do Amoy...	28 @ 50
do Formosa	40 @ 80
Imperial, Canton	25 @ 40
do Pingsuey	45 @ 80
do Moyune..	60 @1 00
Gunpo'der, Cant.	75 @1 00
do Pingsuey	50 @ 90
do Moyune.	65 @1 25
Y'ng Hy., Cantoo	28 @ 40
do Pingsuey	40 @ 70
do Moyune..	65 @ 85
Japan, ½ chests, bulk	30 @ 75
Japan, lacquered bxs, 4½ and 5 lbs	45 @ 67
Japan do, 3 lb bxs	45 @ 90
do pl'n bx, 4½ lb	35 @ 65
do ½ & 1 lb paper	30 @ 55

TURPENTINE.

Eastern.....	51½@55

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., Aug. 23, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M.....	— —@— —
Tahiti, do	— —@35 00
Cal. do.....	— —@— —
Limes, Mexican, ₱ M.....	12 50@15 00
Malaga Lemons, ₱ bx.....	— —@— —
Cal. ₱ 100.....	2 00@ 2 50
do Sicily ₱ b'x.	15 00@— —
Bananas, ₱ bnch	1 50@ 2 50
Cocoanuts, ₱ 100	— — @ 6 00
Pineapples, ₱ doz.	— @— —
Apples, ₱ box...	50 @1 25
do Choice... ..	— @1 25
Apricots, lb.....	— @— —
Blackberries ose	3 00@5 00
Cherries ₱ lb...	@— —
Plums lb.....	1 @ 4
Figs.....	3 @ 4
Gooseberries...	— @— —
Huckleberries...	— @— —
Strawber's ₱ cs.	5 00 @8 00
Pomgranates....	— @— —
Raspberries.....	— @— —
Currants, ₱ cs..	— @— —
Cranberries bbl.	13 10 @14 00
Peaches ₱ box.	— @1 00
Crawford.....	40 @ 80
Pears, ₱ bx.....	75 @1 00
do Choice....	1 00 @1 25
Crab apples, ₱ lb	2 @ 3
Grape ₱ box....	25 @ 50
Rose of Peru....	40 @ 85
Muscat.	50 @1 00

DRIED FRUIT.

Apples, ₱ lb. ...	— @ 10
Pears, ₱ lb	— @—
Peaches, ₱ lb.....	12 @12½
Apricots, ₱ lb.....	14 @15
Plums, ₱ lb.....	5 @ 6
Pitted, do ₱ lb ..	17 @22
Raisins, imported.	3 25 @3 75
Cal. Raisins.....	5 @ 10
Black Figs, ₱ lb....	5 @10
White, do	12½@15
Prunes.....	12½ @17
Citron.....	28 @ 30
Zante Currants	9 @ 10

VEGETABLES.

Asparagus ₱ box...	— @—
Beets ₱ ctl.....	—@1 00
Cabbage ₱ 100 lbs.	50 @ —
Carrots, ₱ 100 lbs .	50 @ 62½
Cauliflower, doz..	50 @ 62½
Celery, doz.....	30 @—
Garlic, ₱ lb..

Breeders' Directory.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

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A. MAILLIARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

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EDWARD FRISBIE, on line of Cal. P. R. R., near Vallejo, Pure Bred Leicester Sheep For Sale.

GARNIER BROS., Encino Ranch, Los Angeles Cal., breeders of pure French, Spanish, and Saxon Merino Sheep. Price, from $25 to $50, each.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co. Cal., breeder of Pure-Blooded French Merino Sheep

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

T. A. WILSON, Grayson, Stanislaus county, Cal. Breeder and Importer of Spanish Merino Sheep.

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Pure Blooded French Merino Rams

And 100 Choice Young Ewes

For sale by MRS. ROBERT. BLACOW, of Centerville, Alameda county, Cal., near Niles Station, on the Western and Southern Pacific railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Ramhouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proven to be the heaviest shearers in the world.

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BAGS of All Kinds,
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HOSE for Hydraulic Use.
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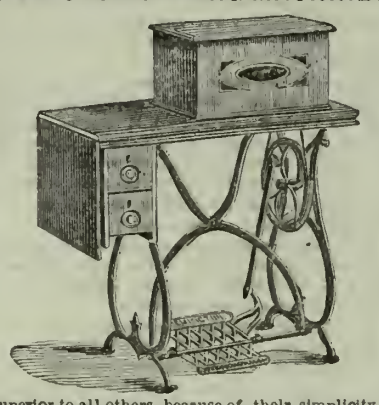
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The largest and best Business College in America Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

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H. H. H.

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Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

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Stockton, Cal.

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H. C. PATRIDGE, - - - Proprietor

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For 1876,

SACRAMENTO, CAL.,

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AND CLOSING

Saturday, - - - - - - Sept. 23d.

40,000 CASH

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The Exhibition will be divided into SEVEN DEPARTMENTS, and the

Society's Gold Medal

To be Awarded to the most Meritorious Exhibition in each Department. Also,

Five Special Gold Medals,

Each of the value of $100, as per Premium List. Those desiring Premium Lists will please notify the Secretary.

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—AND—

Most Attractive Speed Display

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THE CENTRAL PACIFIC RAILROAD AND STEAMERS will carry articles to and from the Fair FREE OF CHARGE.

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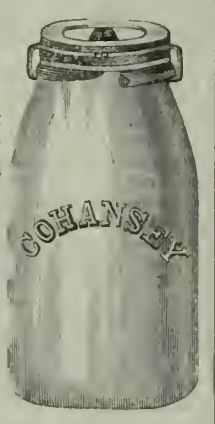
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SINGLE ADMISSION.....50 Cts.

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FRUIT IN CONTACT WITH GLASS ONLY.



Elastic Pressure by Spring Clamps on Shoulder Joint.

The Screw Clamp turns freely on Cover and Inclines, and tightens the Jar quickly and is Easily Tested.

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Every Jar being inspected, there is no trouble in using.

The Handsomest and Best Glass Lid Fruit Jar.

COHANSEY GLASS MF'G CO.,

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Wholesale Agents, - - - San Francisco, Cal.



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SHEEP WASH,

$2 Per Gallon.

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CENTENNIAL HAY PRESS.

Farmers and Hay Pressers will find it to their advantage to examine this Press before buying any other. It is built compact, combining lightness for moving with the greatest power and durability in its working parts, capable of making the average 250 pound bale, more or less, baling 10 to 15 tons per day, with three men and a pair of horses, they traveling only 36 feet to operate it. No excavations required for this Press. This is the original Gove Press improved, after an experience of building Presses in the States the past 15 years, where they gave the best of satisfaction. **Price, No. 1, $250.**

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A New Invention, although Thoroughly Tested, which Combines all the Improvements.

We warrant a complete success in drying all sorts of fruit and vegetables as thoroughly and more expeditionsly than any other Machine, for less amonat of fuei by 35 per cent., as we utilize all the waste heat which is lost by all other Machines.



Ita simplicity of construction and its cheapness will put it in the hands of all who may want a Drier. We don't pretend to ask from $1,200 to $1,500 profit and royalty. We are willing that producers should make the profit and keep it. The Machine has been tested to our entire satisfaction, and met our most sanguine expectations. The fruit dried by our Drier was fully as good as that dried by any of the renowned Driers. We would say to all who con template putting up Machines, that we can make it a decided inducement for all such to give us a call, as we want to sell the entire right of the United States, State, County or Local, at such prices that the poor as well as the rich can use them. The capacity of the Machine will be in proportion to the size, ranging from 100 to 500 feet drying surface. This dryer was more fully illustrated and described in the RURAL PRESS of May 20th, 1876. Communications to T. F. BACHELOR, 622 Clay St., S. F., or to **J. W. CASSIDY**, Petaluma, Cal., will be thankfuliy received and promptly attended to.

The Famous "Enterprise"

(PERKINS' PATENT)

Self-Regulating, Farm Pumping, Railroad and Power

WINDMILLS,

Pumps & Fixtures,



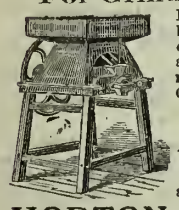
Have been in use on the Pacific Coast in the towns and farming districts for over four years, and wherever they have been sold (and there are thousands of them out) they are doing their work as well as when put up. A careful perusal of our Circulars gives a fair representation of them and shows their simplicity.

We are prepared to fill orders for all sizes, from a PUMPING MILL to a 24-foot POWER MILL for running Machinery, as well as doing the pumping.

The "ENTERPRISE" FEED MILL

(PACKERS' PATENT),

For Grinding Barley, Etc.,



Equally as commendable, has now been tested to entire satisfaction of all, and meets the demand for an article of that kind that has not been supplied on the Pacific Coast heretofore.

CHEAP and RELIABLE.

All Goods Warranted.

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GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

OAKLAND

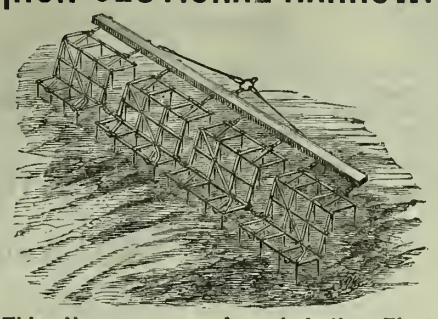
Spring Balance

Gang Plow.



Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal Established in 1858. Send for Circular and Pricelist

IRON SECTIONAL HARROW.



This Harrow was Awarded the First Premium at the California State Fair in 1875.

The undersigned, having purchased the patent right of this Harrow for California, are now manufacturing them in Roseville, Placer County, and would call the attention of Farmers to the superior merits of this Harrow over all others now in use.

As its name indicates, it is made in sections of about three feet in width, each section having four bars, in which the teeth are inserted, and by connecting the sections with links, the Harrow is formed.

Should a Farmer require a Harrow upon his farm to do all kinds of work, he should purchase six sections, which would be suitable for four horses, and would cut 18 feet in width; by disconnecting two sections he will have a two or three-horse Harrow, cutting about 13 feet. One section alone is complete in itself, and suitable for garden work, with one horse. The Harrows are made of the best quality of iron, and with teeth warranted to be steel.

We give a few of the many reasons why we claim superiority for these Harrows over all others in use on this Coast:

First—By the lightness of draft, taking into consideration the amount of work it does.

Second—By working uneven or rolling ground just as well and as evenly as if it was entirely level.

Third—They are made of Iron and Steel, and therefore are not affected at all by sun or rain, or by heat and cold; they are always tight, and ready for use; they are also durable. A farmer purchasing one has a Harrow that will last a life time.

Fourth—The teeth being fastened with a nut and screw into the cross bars, should one break, another can be inserted in a moment. We are making three sizes, all being the same in width, but different in depth and weight only.

Prices, from $12.50 *to* $15.00 *per Section*

All orders sent to

BREWSTER & CO.,

Roseville, Placer Co ,

Will be promptly attended to, and satisfaction guaranteed in all cases.

CAUTION.

It has come to our notice that certain parties are now making this Harrow in this State, and that several of them have been sent here from the East. Now this is to *caution* all persons against making, selling or buying them, as made and offered for sale, as we shall enforce our rights in relation to the matter, and would call the attention of all persons infringing upon our patent, to the *law* in regard to it.

BREWSTER & CO.,

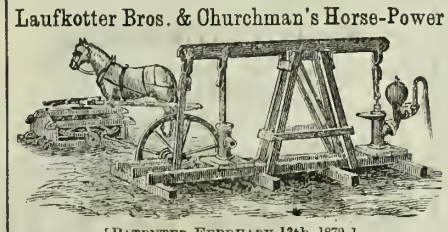
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To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power



[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

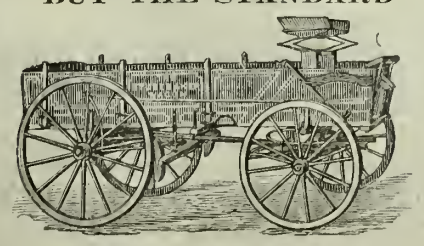
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STUDEBAKER WAGONS.

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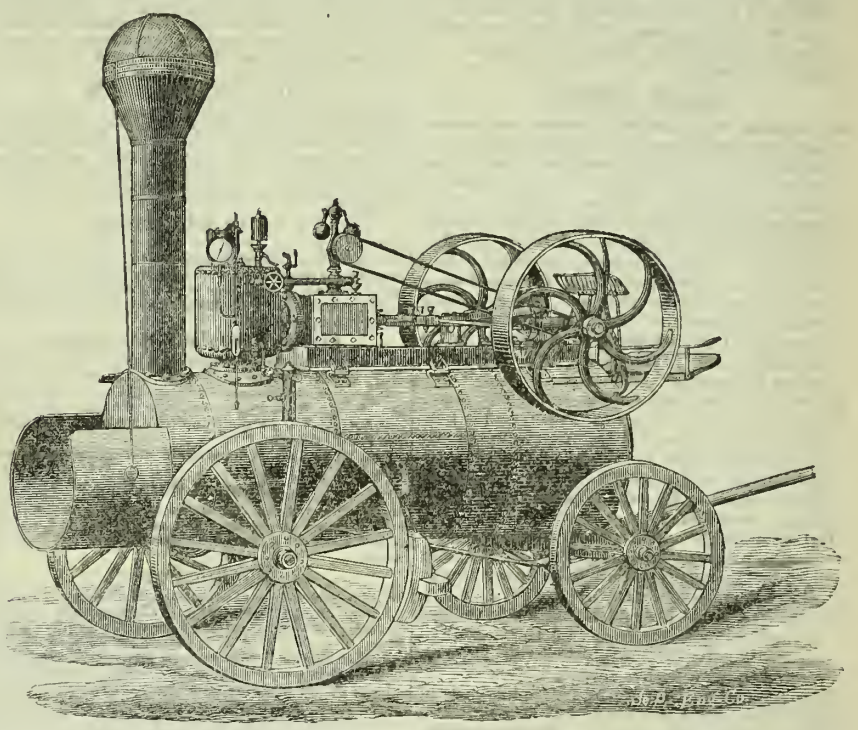
We do a strictly Commission Business, and place our rates of Commission upon a fair legitimate basis that will enable the country at large to transact business through us to their entire satisfaction.

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Best Portable Straw Burning Thresher in Use.

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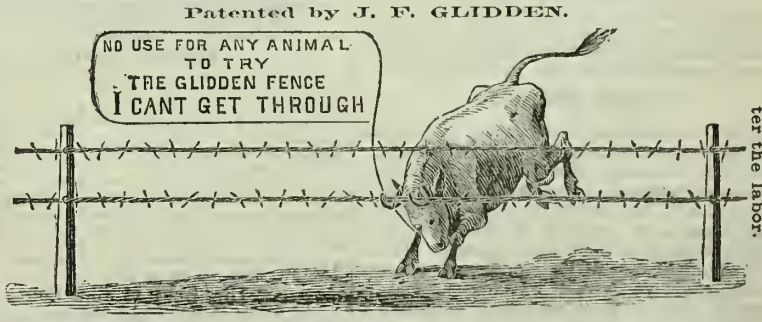
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THE ENAMELED STEEL BARBED FENCE WIRE

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



About one-half the cost of any other good fence; and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8 Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

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Howell's Improved Patent Wagon Brake.

(Illustrated in RURAL PRESS of August 12th.)

References.—The following are a few of the many persons using the HOWELL BRAKE,—any one of whom can be consulted: C. S. Davidson, Jacob Loncor, G. C. Truex, A. Valentine, John Beatty, Samuel Vansickle, Sylvanus Lawrence, Crispin & Willson, Wm. H. Hart, Joseph Ayres, John H. Ayres, Collins B. Drake, Steward Wells, Michael Yonngs, Wm. Pinkney, Peter Haines, Marshall Ackerson, Jonathan P. Maines, Robert T. Johnson, Overton Heminover,—all of Andover, N. J.

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And 150 Acres Land. Turbine Wheel, 190 feet fall, 35 barrels per day. Good Home Market and Never Failing Water.

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Our intimate knowledge of the various inventions of this coast, and long practice in patent business, enable us to abundantly satisfy our patrons; and our success and business are constantly increasing.

The shrewdest and most experienced Inventors are found among our most steadfast friends and patrons, who fully appreciate our advantages in bringing valuable inventions to the notice of the public through the columns of our widely circulated, first-class journals—thereby facilitating their introduction, sale and popularity.

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In addition to American Patents, we secure with the assistance of co-operative agents, claims in all foreign countries which grant Patents, including Great Britain, France, Belgium, Prussia, Austria, Victoria, Peru, Russia, Spain, British India, Saxony, British Columbia, Canada, Norway, Sweden, Mexico, Victoria, Brazil, Bavaria, Holland, Denmark, Italy, Portugal, Cuba, Roman States, Wurtemberg, New Zealand, New South Wales, Queensland, Tasmania, Brazil, New Grenada, Chili, Argentine Republic, AND EVERY COUNTRY IN THE WORLD where Patents are obtainable.

No models are required in European countries, but the drawings and specifications should be prepared with thoroughness, by able persons who are familiar with the requirements and changes of foreign patent laws—agents who are reliable and permanently established.

Our schedule prices for obtaining foreign patents, in all cases, will always be as low, and in some instances lower, than those of any other responsible agency.

We *can and do* get foreign patents for inventors in the Pacific States from two to six months (according to the location of the country sooner than any other agents.

The principal portion of the patent business of this coast has been done, and is still being done, through our agency. We are familiar with, and have full records, of all former cases, and can more directly judge of the and patentability of inventions discovered here than any other agents.

Situated so remote from the seat of government, delays are even more dangerous to the inventors of the Pacific Coast than to applicants in the Eastern States. Valuable patents may be lost by extra time consumed in transmitting specifications from Eastern agencies back to this coast for the signature of the inventor.

Confidential.

We take great pains to preserve secrecy in all confidential matters, and applicants for patents can rest assured that their communications and business transactions will be held strictly confidential by us. Circulars free.

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Our long experience in obtaining patents for Inventors on this Coast has familiarized us with the character of most of the inventions already patented; hence we are frequently able to save our patrons the cost of a fruitless application by pointing them to the same thing already covered by a patent. We are always free to advise applicants of any knowledge we have of previous applicants which will interfere with their obtaining a patent.

We invite the acquaintance of all parties connected with inventions and patent right business, believing that the mutual conference of legitimate business and professional men is mutual gain. Parties in doubt in regard to their rights as assignees of patents, or purchasers of patented articles, can often receive advise of importance to them from a short call at our office.

Remittances of money, made by individual inventors to the Government, sometimes miscarry, and it has repeatedly happened that applicants have not only lost their money but their inventions also, from this cause and consequent delay. We hold ourselves responsible for all fees entrusted to our agency

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We have superior artists in our own office, and all facilities for producing fine and satisfactory illustrations of inventions and machinery, for newspaper, book, circular and other printed illustrations, and are always ready to assist patrons in bringing their valuable discoveries into practical and profitable use.

DEWEY & CO.,

United States and Foreign Patent Agents, publishers Mining and Scientific Press and the Pacific Rural Press, 224 Sansome St., S. F.

THE PACIFIC RURAL PRESS

For 1876.

BETTER AND BETTER.

While we cannot promise to labor any more faithfully or earnestly for our readers in the future than we have in the past, we shall endeavor to make the Press MORE COMPLETE IN ALL ITS DEPARTMENTS.

Its Editorials,

Will be written by able and conscientious writers, and with such judgment and care as to render the journal of the highest usefulness to its readers, and to the permanent welfare of the new and progressive community its columns especially represent.

New Editorial Talent

Has been engaged to work in co-operation with the senior editor of the Rural and other assistants, in extending forward some of its important branches.

The Live Stock

Departments—including the horse, horned stock, sheep, goat, swine and poultry interests—will receive constant attention, and our researches for reliable information, which shall be of practical use to our Occidental readers, shall not be limited to any narrow sphere.

The Dairying Trade

Of this coast is yet in small dimension to what it might and should be—to what it is destined soon to be. Intelligent experience; careful experiments; the dissemination of demonstrated facts in regard to the best breeds of stock; information of the best grasses for pasturage for all seasons; the best machines and methods for manufacturing; hints for marketing, etc., will be some of the subjects to be treated in an earnest way in our columns, that the Rural Press may well do its share in advancing one of the most promising industries of the coast.

Our Correspondents

Number some of the ablest domestic writers in the Union, and we are proud to say we would not exchange their co-operative pens for those of any other corps of newspaper correspondents. They are not only friends at heart of our paper, but of the true cause of progressive manhood and womanhood everywhere. Our sources of

Fresh Information

Are not equalled by those of any other agricultural journal in the United States, and making the best use possible of our facilities, we are determined that every issue of the Rural Press for 1876 shall teem with a choice and well dressed variety of desirable information. The pursuit of

Floriculture and Horticulture

On the Pacific slope presents a field of delightful study more prolific in novelty and fruitful in profits than awaits the student and laborer in any other portion of the globe. We trust to exchange valuable hints with our florists, vineyardists and fruit growers throughout the Pacific States.

Our Home Circle department will contain none other than

Chaste Literature

In pleasing variety, calculated to amuse, instruct and elevate both the young and old boys and girls, who may turn to its columns for pastime and self-improvement.

Our Illustrations

Will be numerous and calculated to please the eye and help the mind to see quickly and correctly many important objects that might otherwise pass their knowledge. Some of them will enable farmers to see and contrast for themselves many kinds of new and important machines and implements. This illustrated feature of our paper, although expensive to its publishers, is an important one to rural readers—especially in new and rapidly developing country.

The Mind and Health

Of the readers of the Rural will be cared for in our Good Health, Useful Information and Domestic Economy columns. Our General News Items, New Inventions, Scientific and Mechanical Miscellany articles will be continued throughout the year.

Agricultural Notes.

Under this head will be reported weekly, carefully selected and condensed items concerning the agricultural improvements and progress of the various counties and districts of the wide field we represent. The

Information of the Resources

Of this coast, set forth in the various departments our paper, is not only of important benefit to its readers, but to every property holder on the coast, through the influence it exerts in stimulating enterprise at home and healthy immigration from abroad. There are but few persons interested in agricultural pursuits here who are not benefited annually by our publication above the amount of its subscription price.

Market Reports.

In its commercial department, the Rural Press will spare no effort to furnish the agriculturist an accurate and trustworthy schedule of the prices which various productions are gaining in the market. We regard this department of our paper as worthy of the most careful and discriminating labor. In our review of the markets we shall present all attainable information concerning the tendency of production of various supplies and the features of the trade in them. We shall afford all the evidence which can be secured for forming true judgment of the features of agricultural trade and commerce. Although this is a difficult department we shall especially strive to give the best weekly domestic produce reports in the city.

The Best is Cheapest.

We might fill our advertising columns with high-price

Quack and Swindling Advertisements,

And our reading columns with paid puffs, and thereby be enabled to furnish a large paper at a remarkably low price, but *we will not do it.* We believe our subscribers prefer a good paper at a reasonable price to the so-called cheap papers that trifle with their confidence. Time is precious, and patrons will find that reading the cheapest which is most suitably prepared for their special avocation and locality.

The Friends of Our Paper

Have done much since its first issue, in January, 1870 to make the Rural Press of the Pacific coast what it is to-day. Thanking them for past kindnesses, we invite all our readers to make known its merits to those who are not yet its reading or advertising patrons.

A Farmer's Paper Throughout.

We repeat that the Pacific Rural Press will continue to be a faithful advocate of the best and highest interests of agriculturists on this coast—according full justice to other kindred industries in conjunction with which agriculture alone can permanently thrive.

A Handy Map

Of California and the principal portion of Nevada will be furnished free to all subscribers who pay one year in advance, during the year 1876. The map is plain, printed on tinted paper, about 16x20 inches, showing townships in California, and the counties, railroads and principal towns in California and Nevada.

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On all papers sent to subscribers in the United States.

Subscription Rates, payable in advance: One year, $4. Sample copies free to those who will assist in obtaining subscribers.

DEWEY & CO., Publishers.

No. 224 Sansome street, S. F.—Jan. '76.

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Crosby's Extra Early
Marblehead Mammoth
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Mexican Sweet, New } Sweet Corn.

Early Canada
Early Dutton } Yellow Flint Corn.

Long Red Mangel Wurzel
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ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

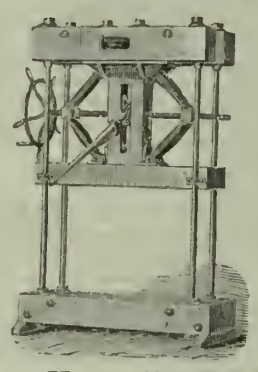
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Third—It will PRODUCE MORE WINE with the least LABOR, and in the least TIME.

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Lands and Homes for Sale.

A Desirable Bargain.

Mr. Lee H. Utt, of Pala, San Diego county, offers for sale a share in his valuable place, consisting of 320 acres, and situated as described above. There is an Apiary on the ranch in successful operation. For this business it possesses marked advantages. Twenty acres are seeded to alfalfa and eight acres are in vines. The place has growing on it 420 trees, many of them in bearing.

The owner will warrant the Cavendish Dwarf Banana to grow as well here as in Florida. He has three now growing. The pasture now enclosed will keep 50 head of cattle. The ditch—which is large enough to run a mill—is stocked with trout, and has a fish pond 100 feet square, and full of fish. There is a nice warm spring, with bath house; the water contains sulphur, salts and iron.

The place possesses great natural advantages, and the present owner has not spared money nor labor to improve; but being a valetudinarian he is not strong enough to attend to the work. To the right kind of a man a rare opportunity is here offered. To such a person as will come in good faith he extends the invitation to stop on the ranch long enough to become familiar with its characteristics and capacities.

Parties can refer to I. Nast, stock broker, San Francisco, or to anybody of note in San Diego. The place bears the name of "Aqua Tibia." Address,

LEE H. UTT,

Pala, San Diego County, Cal.

FOR SALE,

In Lots to Suit,

5,000 Acres of the Lake Vineyard Land and Water Association.

These lands are in the great fruit belt of Los Angeles County.—only six miles from the city are peculiarly adapted to semi-tropical fruits, and adjoin the famous Lake Vineyard of Hon. B. D. Wilson. The Southern Pacific railroad runs through the land; convenient to schoolhouse and church; water in abundance, and the water-right is sold with the land. Title perfect. A Map of the tract may be seen at the office of Mayor Beaudry, on Spring street, opposite City Council rooms. References may be made to Hon. B. D. WILSON or J. DE BARTH SHORB, at Lake Vineyard, who will take pleasure in showing the lands. Also, to Mayor BEAUDRY or D. FREEMAN, Los Angeles city.

A RARE CHANCE.

FOR SALE—My Poultry Business, with my Farm of 115 acres; 22 acres of Vineyard and Orchard; House of 10 rooms; Barns; Granaries; 30 Chicken houses.

Receipts between $3,000 and $4,000 a Year,

Fully proved to the purchaser. Farm Implements, Wagon, Horses, Cows, etc., with Poultry (value over $3,000) included. Price, $12,000, one-half cash. Or I will sell a Half interest and continue the business in partnership—the purchaser to reside on the place. Address,



M. EYRE, Napa, Cal.

In view of above I offer a few fine Fowls, Bronze Turkeys, etc. (not included in breeding pens and stock sold with farm), at reduced prices.

FARM FOR SALE,

In the Most Fertile part of California.

410 Acres of the Choicest Land in Butte County, four miles from Chico, on Butte Creek.

300 acres grain land, the balance garden land; will grow corn, cotton, hops, potatoes or garden vegetables. A ditch from Butte Creek conveys water upon the highest land; nearly the whole can be made into gardens, or could be easily seeded to alfalfa. The water right will be sold with the farm. The title is perfect. A large part of the price might remain on mortgage. Unless sooner disposed of at private sale the farm will be sold at auction, September 20 th. For particulars, inquire of

A. BULLARD, Chico, Cal.

Napa Valley, near Napa City,

240 ACRES OF LAND FOR SALE.

THE WHOLE OR ONE UNDIVIDED HALF INTEREST, AT $32 PER ACRE. FENCED IN FIVE FIELDS. LIVING WATER IN EVERY FIELD. ORCHARD AND VINEYARD IN BEARING OF CHOICE VARIETIES. BUILDINGS GOOD. TERMS EASY. GREAT BARGAIN.

STERLING & THOMPSON, Napa City, Cal.

FOR SALE,

FIVE HUNDRED CHOICE QUARTER AND HALF BLOOD COTSWOLD RAMS AND HIGH GRADE MERINOS. Address,

MORRIS & BELDEN, Stockton, Cal. or ADAM VROMAN, Linden, Cal.

DAVIS & SUTTON,

75 Warren St., New York,

Commission Merchants in California Produce.

Reference.—Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A. Lusk & Co., San Francisco, Cal.

Thoroughbred Southdown Sheep,

VERY  CHEAP.

A few Ewes, two to three years old, at $10 each. Several young Rams and Lamb Ewes at $8 each. Having just purchased 80 head I am over-crowded, and offer at these prices to reduce stock. Address,

M. EYRE, Napa, Cal.

PACIFIC RURAL PRESS

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[Editorial Correspondence.]

The Centennial at Philadelphia —No. 13.

The Government as an Exhibitor.

One of the moet interesting and instructive features connected with the exposition is the United States Government building. This building has been erected by the United States Government at a cost of about $110,000, that amount being derived from the fund of $500,000 which was appropriated by Congress to enable the Government to become an exhibitor at the Centennial. The construction of the building is in the general foim of a Latin cross—the larger dimeneions of which are 360 in length, the smaller 300, each being 180 feet wide; the whole covering an area of about 81,000 square feet. The building presents quite an imposing appearance, with its large dome and its conspicuous display of national bnnting. It is filled with exhibits from the army, navy and treasury departments, and from the Patent Office and Smithsonian Institute, each exhibit being under the general supervision of an officer or pereon eepecially detailed for that purpose. The Smithsonian Institute, which covers also a general mineral exhibit, is under the special direction of Prof. Wm. P. Blake, formerly of Calitornia.

This portion of our national exhibition is no mere mercantile display. It is a great object school—at once a museum and an illustrated history of the country. Each of the departments has drawn upon its own resources for the material wherewith to fill its allotted space; the various objects have all an illustrative, historical or instructive interest, and appertain to the original inhabitants of the country, to its early settlement by whites, to the Revolutionary struggle or later ware, to the progress of the arts of peace, to inventions, to scientific researches and natural resources. Limited to a certain degree, the collection, nevertheless, is in its main features descriptive of the whole area of the country's progress, prosperity and glory.

The Army and Navy.

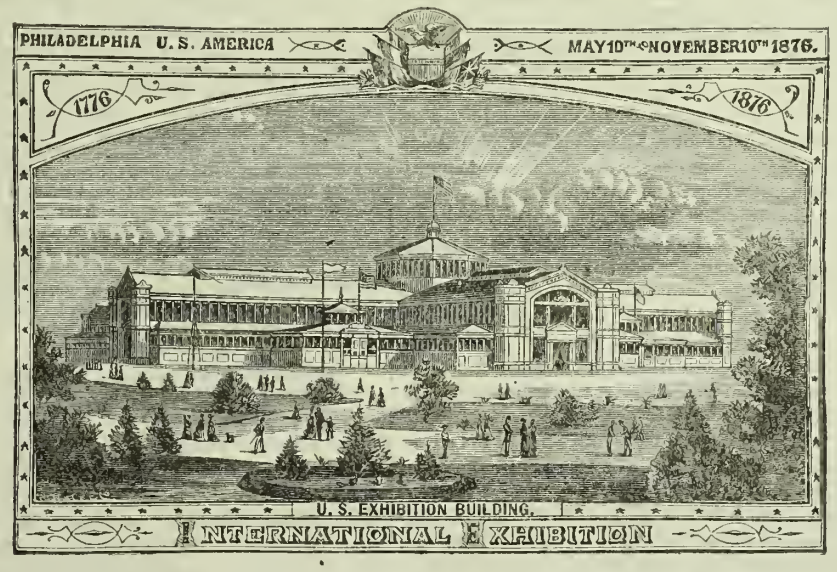
The military man may here study from life-size models the history and changes of the army uniform. He can examine and study the various kinds of firearms, weapons, etc., which have been or now are in use. He can also witness in actual progress the manufacture of rifles, metallic cartrioges, etc. The famous 20-inch Rodman gun, from the Rip-raps, is here, mounted upon a traverse, and looking as mute and solemn as though it could never carry death and destruction to an enemy miles away. Then there are two 15-inch guns, and numerous others, both smooth bore and rifled, of various calibers, down to the smallest in use, and just outside a large mortar lifts up its yawning mouth. Then we have the Gatling gnn and Fieschi battery of guns, and all the various machine combination of small arms, whereby modern battle-fields are so often made such terrible places of carnage.

The Navy Department Display

Is also remarkably full and fine. It shows a wonderful collection of specimens of shot, shell, and all the paraphernalia connected with naval combate. Marine engines and boilers are exhibited of most curious and complicated make, designed for being placed in contracted and peculiar places, such as need often demands; immense cables with mammoth iron links seemingly sufficient to hold a dozen ships in the face of the most fearful gale; beautifully finished models of every class of ships in the navy, and specimens of every variety of naval stores from a ship's biscuit to a sheet anchor. Upon the outside and near the main entrance we have the *fac simile* of a monitor turret, with its two Rodman guns in position, showing just how these modern war engines are furnished and fought. Most visitors mistake it for a real turret; but it is only a shell of wood, of the ordinary dimensions of a turret, covered with heavy sheet iron. The weight of a real turret is about 250 tons, and consequently too heavy to be moved to such a locality. The work of placing the 20-inch Rodman in position was quite heavy enough to tax severely our best engineering appliances, and that weighs only about 50 tons. The art of submarine warfare is fully illustrated by various devices in model, but especially by a huge cigar-shaped real torpedo, about 25 feet long, with a propeller at one end, and an electrical apparatus at the other to guide and control its actions when sent upon its errand of destruction. In the naval as well as in the army section are shown the various hospital appointments employed in actual service. A portion of the latter is fitted up and in actual use, to meet the numerous cases of victims for sunstroke and other casualties, great numbers of which are occurring upon the grounds every day.

The Smithsonian Exhibit.

Thie, to most people, is the most interesting exhibit of all. It occupies nearly one-quarter of the entire Government building, and presents a display such as has never before been attempted. It is full of marvelous interest and most useful instruction. Science, which has occupied an inferior position in previous expositione, has here been accorded her prerogative, and comes most honorably to the front. She reaches back to the very dawn of knowledge in bringing forth the subjects for her research. She teaches exclusively in the silent hut impressive manner of object lessons, and the means at hand are most varied and almost without limit. The ethnological and archæological collection displayed here is something



really marvelous. No other nation can equal it; in no previous year of our progress could it have been so fully realized. There are here several hundred skulls from the graves of extinct California tribes of Indians, together with the trinkets, idols, pottery and stone ware which were buried with the bodies. The researches in the central and western portions of our continent during the last five years have added wonderfully to the knowledge of the world in these departments of study. All the more important results of these exploratione are here presented for the world's consideration and study, either in the articles themselves, in models or by photographs.

The researches of science have taught mankind that the main force of culture lies in the encouragement and progress of industrial art. Industrial art led the early inhabitants of the earth to fashion flint knives, stone axes and mortars, stone arrowheads, bows, slings, fire sticks, etc.; then with digging sticks—the earliest implement of tillage—first raised man above the level of the brute, and gradually taught him to smelt copper and tin, and unite them into a hard alloy suitable for spear heads, axee, knives, chisels, improved digging tools, etc. Then, and not till then, did men begin to erect durable dwellings of wood and stone, and accomplish productive tillage, such as is required to maintain many people on small areas.

Thousande of years elapsed, and industrial art still made progress—slow it is true—but progress nevertheless; and we find implements and tools still further improved. Man had learned to forge, temper and weld iron—the most useful of all metals. Progress then became more and more rapid, until ships with masts and sails had supplemented the canoe; the mold board plow had taken the place of the iron-pointed stick or forked limb; the water wheel, the magnetic needle, the paper mill, the spinning wheel and, finally, movable types came, one by one, to aid man in his various avocations, and to add, by their presence and power, to the growing culture of mankind. Next came, in comparative quick succession, the telescope, the quadrant and compass, the puddling furnace, the rolling mill, the steam engine, the locomotive and labor saving machinery of a thousand kinds, and lastly the electric telegraph, to bind together the nations of the earth with a bond of social and commercial interest, which is constantly growing stronger and stronger and breaking down the partition walls of difference between the various tribes and nations. Such are the trinmphs of industry, which have brought with them the highest forms of social and intellectual culture and built them upon a foundation which marks a world-wide difference between ancient and modern civilization. All theee things are here illustrated with the various implements used, and which have come down to us from the various ages of wood, stone, hronze and iron, and which are fiually supplemented by the wonderful achievements of the modern age of machinery.

A volume would be insufficient to make any adequate allusion to even the chief of the different matters of real interest in this marvelous collection. The wonderful *fac-simile* models and sun pictures of the cave cities and cliff structures of Colorado and Arizona alone furnish material for volumes. The entire exhibit is divided into four sections, which are again sub-divided for the ready convenience of careful inspection and study, and the entire arraugement is thoroughly systematic. The zoological and hotanical collections are most carefully disposed and exposed for view and etudy. Great attention has been paid to the display of food fishes by Prof. Spencer F. Baird, through whose efforts, and those of his assistants, millions upon millions of this wholesome food have been of late annually added to the resources of the country. The products of the mine and the quarry, as displayed in this building, also come under this head.

The Wonders of the Patent Office,

Shown in this building, are nearly allied in interest and importance to the Smithsonian exhibit, and include many thousands of models properly classed and arranged. They represent the toil, study, hopes, disappointments and realizations of thousands of inventors, and embody all manner of mechanical motions, principles and technicalities. The Washington relics also come into this department. They comprise the military outfit, clothing, bedding, camp equipage, and many domestic relics, which the Father of his Country used when he moved and had a being among earthly things. The effect of such an exhibition on the patriotism of the beholders is of rather a doubtful character—for certainly the association of his memory with that rusty old military coat and those still more dilapidated breeches and other commonplace things can scarcely fail to detract somewhat from the great and lofty idol with which our fancy has clothed him.

The Postoffice Department

Has established a branch office in this building, where all who wieh may have their letters directed. A system of postoffice boxes has also been arranged throughout the grounds for the collection and mailing of letters, as in the various cities of the Union. This arrangement is a matter of great convenience, and the husiness of this Centennial office is attended to with a promptness and urbanity which makes it really what it is no doubt intended to be—a model postoffice. Connected with this exhibit is a machine for the manufacture of envelopes, a sort of a paper-eating monster, which is fed at one end from a pile of small sheets of paper that are picked up one by one, drawn, as it were, into the very bowels of the monster, cut, twisted, folded, gummed, etamped, hung up to dry, and finally counted out at the other end into packages of a given number of envelopes, all ready to he boxed up and sent away to the stationer. In machinery hall there is another similar machine which snips off the sheets from a continuous roll of paper, and gums, dries, folds and counts the envelopes. This machine seems almost endowed with intelligence. It evidently knows when it has completed its dozen envelopes, for it starts off and carries them to a good looking young lady who sits by to receive and pack them away.

The Signal Service Board

Is also here, and the visitor is brought into close contact and permitted to see and examine all the ingenious devices and methods by which modern science is enabled to predict, on philosophical principles, those facts about the weather which, years ago, the almanac makers presumed to set down with such confidence, when they in reality knew nothing about it. It is to be hoped that visitors will so make themselves acquainted with the working of this bureau, that it will hereafter be better understood and appreciated by the people at large. The manner in which the "form" for the maps is "made up" is freely shown and explained to all, and a press is daily employed in printing the meteorological charts used by the Government.

Miscellaneous.

Near by the above the Signal Service exhibits a very interesting model of the excavation works now going on to remove the obstructions to navigation at Hell Gate, near New York. The hottom of the channel is first shown, together with the topography of the adjoining shore, the coffer dam, the debris which has been raised, etc.; after which the attendant, by the aid of machinery, raises the bottom of the channel firet shown, which forms the roof of the excavation that has heeu made below. By this means a model of the underground works is brought to view showing the galleries, pillars, etc , in miniature, as they actually exist. A better idea can thus be formed of this novel piece of engineering than can be obtained from an actual inspection of the locality itself. Workmen are now engaged in placing the cartridges of dynamite and nitro-glycerine, which are to be exploded about the 5th of September. It will no douht be recollected hy most of our readers that the well known San Francisco engineer, A. W. Von Schmidt, first conceived this plan of removing sunken rocks, gave it a successful demonstration in the removal of Bloesom rock in the harbor of San Francisco, and subsequently obtained a patent for the process. Mr. S. has recently commenced a suit against the United States for an infringement of his patent in the work which we have described.

There are many other matters connected with the various exhibits in this building, which are nearly or quite as interesting as those to which we have made reference hut which must be passed over for the present. Although a week could be most profitably spent in this building, even a day or less will compensate tenfold for the time and money required, if the visitor takes any special interest in that which is valuable as well as beautiful.

W. B. E.

An accident occurred to the Pacific Mail steamship *Colon*, on the other side, and she was towed back to port. A steam pipe burst and two men were killed. The machinery was considerably damaged.

CORRESPONDENCE.

Big Meadows Valley, Nevada.

EDITORS PRESS:—In accordance with the well-established law that "motion follows the direction of the stronger forces, or along lines of least resistauce," it is safe to predict tbat the State of Nevada and territories adjoining will be teeming in a few years with a dense population. The vast tide of immigration so rapidly filling the valleys and monntains of California—its great waves dashing against yonr shores, and struggling for an outlet—is destined to roll backward and eastward until every nook and corner are occupied where there is ore to smelt or land to till.

Progress of Nevada.

Thoughts snch as these were forced upon me during a recent tour through portions of this State, especially in view of the rapid settlement and cultivation of the valleys visited. Three years ago what is known as the Big Meadows, a valley running from north to south, say 18 miles in leugth by about 10 miles in width, was almost without an inbabitant, and covered in its whole extent with grease-wood, with the exception of tho natural grass along the river. There are now quite a nnmber of families here engaged in making hay or raising grain. But as they are not very near neigbbors, the valley presents an inviting field for the immigrant.

Land is Still Abundant

And cheap, to be had at railroad or government price. Mnch of it is of a black sandy loam, that produces excellent grain. The Central Pacific runs through the center and some of the best portion of the valley, bringing a market to the door for its produce, enabling the farmer to secure a good round price for his grain and potatoes, the former bringing usnally three cents per pound, and the latter about two cents. The cost for clearing the land of brush and for breaking it up, the first season, is abont $6 per acre.

Waler for Irrigation

Is obtained from the Humboldt river, which runs all along the eastern side of the valley, and the cost of ditching depends much on the situation of the land, snd will vary according to locality. The largest ditch in the valley, eight feet wide and four feet deep, was dug at a cost of abont $2 per rod, and has a water supply for about 1,500 acres. The expense for the smaller branches from the main ditch is comparatively trifling, as the work is usually done with the plow.

Mr. Marker, one of the first settlers, is already cutting several hundred tons of hay per year, and for two seasons has been nsing one of the

Patent Hay Loaders.

If not about "to pu'l down his barns to build greater," he is making preparations to put up one with a capacity for holding 1,500 tons of bsled hay, knowing that it would soon be reqnired. His neighbor, Larson, who is very extensively engsged in the same business, has a Chas. Stratton loader also. They both spoke in praise of the machine, finding that three times the amount of work could be done by its aid with less hard labor.

The castings, however, were fonnd entirely too light for the kind of work required for them here on rough and uneven ground, and portions of the machinery were liable to break. To remedy the difficnlty

An Ingenious Device

Was resorted to, snggested, I believe, by Mr. Larson, which is thought worthy of mention as it may be of nse to others. In the first place the hnb was strengthened by an iron ring made by the blacksmith. In the second place, to give strength to the drum-head, another wheel of nearly same size, made of wrought iron, was fastened to the drum-head by means of bol s on each side of its spokes, with plates and screws; the spokes of new wheel being attached in a similar manner to the shaft, after being first sqnared by chipping off the sides.

Agricultural Products.

Alfalfa has been tried with success, particularly by Mr. Craig, near Lovelock's station. He had already cnt two crops, and thought it probable that he would harvest two more for the season. He was the first to sow wheat last year, getting a good yield. His barley is eqnal to that on some of the best lands of California, with an average yield of 30 bushels to the acre, and estimates on some of it as high as 50 bnshels. In addition to some very good small grain well headed and with heavy straw, as fine looking Indian corn was fonnd growing on the ranch of Messrs. Wingate and Hazelton, on the west side of the valley, as was ever seen in Los Angeles county or on Russian river; and potatocs and cabbage eqnal if not superior to the best fonnd on the ranches immediately west of Carson City.

What has been said of Big Meadows will apply, though not to the ssme extent, to many localities along the Humboldt as high up as Battle Monntain. I heard of potatoes near

Golconda

Weighing as mnch as three ponnds apiece and worth as many cents per ponnd, and beets from the seed going as high as 36 pounds. As grass is abundant, considerable attention is given to live stock and to the dairy. Mr. Cusick and neighbors are making each from 600 to 1,200 pounds of butter per month, which brings from 40 to 50 cents per ponnd. Mrs. C. gave me an account of

A Cheap Food for Chickens.

Which deserves a place in the columns of the RURAL, where every experiment or discovery of value ought to be recorded for the mutual benefit of all. A can of milk is placed in warm water and when the whey rises it is poured off. The curd is pnt in a pan, thoronghly dried in the sun, and with the addition of a little pepper is represented as making an excellent food for poultry. It is said to be almost equal to wheat and far cheaper.

Agricultural Lands.

There is probably a thousand acres of good land lying near Golconda that could be brought under cultivation at a cost for water from the Humboldt of about $5,000, and some similar openings for settlement along the river, requiring no very great outlay.

However nninviting much of this section may appear to the traveler from the passing car, a closer inspection will convince him that appearances are sometimes deceiving; that it is not always safe to judge the jewel by the casket.

Let any one step into the garden of Mr. Lay, within sight of the station, and behold, as I had the pleasure of doing, the thrift, variety and abundance of vegetables of every description, spread as a green carpet over 20 acres or more of rich, mellow soil, and he will turn from this beautiful oasis with the conviction that many another "green spot" will eventnally appear here to gladden the eye of the traveler and make for the immigrant not only a profitable living but a beautiful home. A. C. K.

East and West.

EDITORS PRESS:—To one born in the Eastern States, and who has spent the greater portion of his life among the rugged hills of New England, there is nothing more surprising than the way farming is conducted in this country, and yet the Easterner almost invariably falls into the samo habits of looseness and extravagance if he undertakes the same business here. This shows conclusively that we are but too apt to submit and partake of the elements that surround us rather than persistently try to correct the wrong. The conclusion is that one man can no more make or reform a community than one swallow can make a summer.

The traveler who bumps his way through Mexico or Central America may be disgusted with the native awkward and clumsy way of doing things, but let him reside there for a year or two and he will be sure to fall into their prevailing habits more or less. Climate has much to do with it, and the aimless indolence that snrrounds the new comer seems to be contagious.

In New England a man is obliged to be prudent, ingenious and indnstrious. In the Eastern States most of the machinery has been invented that has lightened toil and revolutionized the whole of the labor systems of the civilized world. But we sometimes think that the introduction of that very machinery has been in a measnre the death blow to New England farming, inasmuch as it is impossible to make it practicable there. The surface of the country for the most part is rugged and rocky and the soil very thin, though generally better and more productive where the rocks are plentiful, if we except the great valleys like the Connecticut or the Mohawk. What would the young farmer born in California and used to gang plows and mowing machines think of primitive farming in New England or among the stumps and rocks of the Middle States? A great deal of the plowing that is done there is by "hawing and geeing," and backing the patient oxen around this stone or stump and over that to get the nose of the plow in six inches of soil, and after that the grub hoe, and then to find a little loose earth to cover the corn one must scrape a yard away, thankful to get it so near.

Is there any wonder that crops are small? Is it not a wonder they plant at all, since every bushel of corn costs the producer a dollar, which can be raised in the far West and freighted a thousand miles for half the money.

In New England 10 bushels of wheat to the acre would be considered a good yield. There is very little wheat raised in the New England States, and the production of other cereals is limited, and the yield would be still less were it not for the mannre and other fertilizers that are extensively used at great expense throughout that entire section of the country.

But what is New England to do? Her manufacturing interests are dead, and thousands of operators are little better than beggars to-day. What must be their suffering during the coming winter? "Go West, young man," may be good advice, but how are they to get West, and what then are they to do without means or friends? It is a hard case at best, and when will their condition improve? The fact is, more men must help themselves—work for themselves instead of for others that pay only as they need their services and often poorly at that, which leaves no provision for to-morrow, and when to-morrow comes, if it ever does, they find themselves helpless and homeless. If these men had made their own homes, no matter how humble, their condition would have been improved. We believe that prodigality and extravagance have had much to do with the distress of to-day, and until the poorer classes shall be content with what they can really afford, we cannot expect any great improvement in the present state of affairs. We are among those that believe that many a neglected and abandoned farm in sterile New England even can be redeemed and made to support 10 where now one gets a living. There are no bonanzas there, but by prudence and a reasonable amount of labor a good living may certainly be had. How long, at the present rate of robbing the soil, before California will be as unproductive as the Eastern States? We are told that where but a few years ago the average yield was 25 or 30 bushels to the acre, now they are content with half that. This is certainly much farther than crops have fallen off in the East. And this is going on all the time in spite of the experience of our fathers and ourselves.

The land is stripped year after year, and no provision made to refund what is so unjustly taken. There are thousands of tons of valuable manure thrown into the bay annually that in almost any Eastern city would be eagerly sought after, and for which hundreds of thousands of dollars would be paid. Whole blocks have been filled in with manure many feet deep that would have been invaluable as a dressing to thousands of our depleted acres. All through New England we find abandoned homesteads that within 30 years were made to support large families that have grown up honored and respected and are now scattered over the land. Even here in California their influence is felt among our best and most worthy citizens.

With all its disadvantages, who would not rather visit a well conducted farm in the Eastern States than one of the overgrown and slipshod ranches in California, one of the most favored countries on the globe. There we find comfortable houses, commodious barns, snug enclosures and a general air of thrift that we look for in vain in this country. If not in vain they are so few and far between that we forget one while looking for another. There are some well conducted farms or ranches in this country, but there are too many that are skinned year after year without profit or pleasnre. Valuable tools are left where they were last used nntil the season comes around to use them again. Oftentimes these very tools belong to the merchant that sold them expecting to get his pay when the harvest was in. Snch has been too much the custom. The farmer has not felt that the tools were his exactly. In fact, the very land often belongs to another who has thousands of acres besides cared for in mnch the same way. How long must this state of things exist? How true for all time are the lines of Goldsmith:

> Ill fares the land, to hastening ills a prey,
> Where wealth accumulates and men decay.
>
> PHILMORE.

Tho wrong policies which our correspondent points out so forcibly are worthy of careful consideration. He is wise who overcomes them by his intelligent practice. We have great faith in the ultimate wide spreading of better systems of agriculture which are here and there obtaining foothold in our State. General considerations are valuable when the practical man has the energy and insight to profit by them under the different conditions which affect his practice and its results.—EDS. PRESS.

Threshing.

EDITORS PRESS:—The reading of the accounts of the terrible disasters caused by the explosions of steam boilers in our harvest fields recently, in a late number of the PRESS, suggested to me the propriety of indulging a few criticisms on California harvesting, which 31 days of bitter experience should entitle me to.

It should be known, in the first place, that the California farmer very rarely does his own threshing; that part of his farming is let out by contract, or for so much per bushel, to outside parties, who make a specialty of threshing, and who travel about with their machines from farm to farm for that purpose. It is needless to say that the object of said machine owners is to make money, and to this end they subvert every other interest save their own. During the long days they run from five o'clock in the morning until half-past seven at night, taking less than an hour at noon.

Threshers' Profits.

In fair grain a 32-inch cylinder machine will thresh from 800 to 1,000 sacks or bags each day, which average over two bushels each. Now, some idea of what our farmers pay for having their grain separated may be gleaned from the following data: The machine owners get six and a half cents per bushel or 13 cents per sack for threshing on the San Joaquin. The farmers board the hands. This, at the rate of 1,000 sacks per day, (there is often as high as 1,200 and 1,500 threshed in a day) would amount to $130. Now, deduct $50 for expenses (the expenses come oftener under this figure than over), and you have a clear profit of $80 a day. A season like the present a machine will have about 70 days steady run, without counting breakage, time lost in moving, etc., which it will be observed, in the course of the whole season gives the sum of $5,600 clear as the result, which is more than double the capital invested in the beginning.

The Results of Haste.

Now, it is clear to the most careless observer that with such enormous profits in view, *haste* must be the ruling passion of the grain harvester, and from this haste to get out the greatest number of bushels in the shortest possible space of time comes the easy solution of the problem why boilers explode, why whole fields are destroyed by fire, why much grain is unmarketable from being badly cleaned, and why, last but not least, human life and health is destroyed in the shocking and unpardonable manner, the account of which we have just finished perusing.

It is a fact that men who work about threshing machines are treated little better than beasts by their greedy and domineering "bosses," who are often hired by capitalists to do this work, and who as a general thing know about as little of what they are about as it is possible for one to know. Sometimes by chance they stumble on a real good engineer (though about his competency they are not so particular so they get him cheap), but then he must do just as they say, no matter what he knows. For instance, I have known a fair engineer ordered by a man who knew absolutely nothing about steam engines to put on 100 pounds of steam, when he (the engineer) protested with all his ability that it was dangerous to carry over 80 pounds. The same boiler, on being inspected by a first-class engineer, called forth from him surprise and wonder that we had not all been "blown into eternity long ago." I have no doubt but that the Livermore engineer was right when he said the "boss" interfered with him, nor have I any misgivings but that that boss was like the one described above. A good engineer is always extremely cautious with steam, knowing as he does the powerful and dangerous agent that it is. It is only the rash and careless man who trifles with dangerous things.

But I am disposed to think that words spent upon men who can, for the sake of gain, toy with human life without a conscientious qualm, are like casting pearls beneath the feet of swine, "who will but trample them under foot and turn again and rend you." This giant evil can only be reached by the farmers on hand.

Greatest Care Necessary.

Steam threshers in the harvest field are always dangerous even in the most careful hands; how much more so are they in the hands of the class that usually control them. It is unpleasant to think of a furnace of fire in the midst of a field of dry straw, a single spark from which could easily ignite the whole, and in a few moments the result of the toil and labor of months and the prospect for years go off in smoke, and the honest farmer ruined—not a pleasant picture to be sure, but one which has been realized too often, and may and will be seen again many times until you drive the steam thresher from your fields.

What shall we do? is the natural inquiry. Ten ordinary farmers can unite and purchase a good separator and horse-power, and it is ten very poor farmers who do not keep horses enough between them to run the machine with, and intelligence enough, too. And while your crops will be safe from fire, you will certainly save the enormous percentage which you annually pay to the "traveling thresher," and your work will be much more satisfactory under your own supervision, in economy and completeness.

Certainly these propositions are worthy of serious thought when we consider that the total outlay on this plan would not exceed $150 to each farmer interested. A. KAMP.

San Jose, August 20th, 1876.

Our correspondent overdraws the picture in some respects, but let his severe arraignment fall with full force upon those of the threshing class who merit it. If his strong words lead all to a fuller realization of the force and dangers involved in their operations the result will be good. That all threshers are not as he describes we know, but in general there is a wide avenue for reform.

We are not prepared to approve the suggestion to do away with the steam power altogether. Under some of the conditions which govern our grain production, it is too valuable to be lost. The true way is to use it wisely. The suggestion for farmers to club together to do their own threshing will work well when the conditions are favorable, but this is not always the case. As our corrospondent says, the whole subject is worthy of serious thought.—EDS. PRESS.

Carpinteria Valley.

EDITORS PRESS:—We have tarried several months in the little valley of Carpinteria, Santa Barbara county, and find its amazing fertility, salubrious climate, good water, beautiful scenery and pleasant people combine to make it one of the most attractive spots in California. Many of the valleys bordering on the Pacific coast slope toward the west, and are thereby exposed to the stiff west winds, so much dreaded by those affected with pulmonary diseases, but here nature seems to have formed a spot on purpose for persons thus afflicted.

An angle in the coast just north of here gives to this valley a southern coast, sloping back from which it gradually rises into rolling bald hills, which surround it on the north, east and west. Then, to make it doubly secure on the north, the Santa Inez chain of mountains rear their grand towering peaks, as if proud to form even the background of so fair a picture.

A View of the Valley

From any elevated point is simply magnificent. The pure atmosphere makes everything so clearly distinct that the eye takes in at a glance the entire valley, with its beautiful groves of live oak, sycamore, California walnuts, long rows of blue gums, fruit and nut orchards, its good substantial farm houses, churches and school houses, and at this season of the year is added nature's beautiful carpet of every imaginable shade of green. This, to people from the brown stubble fields of the interior, appears like a oasis in a desert.

Crops.

As evidence of the immense yield per acre, I have seen corn yield three tons; pea beans, one and one-half tons; Lima beans, one and one-half to two tons; Irish potatoes, six tons; sweet potatoes, eight tons; and everything else in proportion. Ground planted in white potatoes in February or March is again seeded to corn in May. All the planting, except early potatoes is done after the ground becomes dry enough to prevent the weeds from growing.

Beautiful little streams of living water bubble forth from the hill's side, and here are situated the strawberry gardens, which are usually irrigated for the second crop. The foothills and mesa lands, which abound in wild oats, produce, also, a superior quality of barley hay.

The Farms

In the valley range from five acres to 14 acres; consequently the result is near neighbors and good schools. Three years ago land could be had for $60 per acre; the same now ranges in price from $150 to $200 per acre, according to improvements. The people here are sanguine in the belief that Carpinteria land will at no distant day sell for $400 and $500 per acre.

Near the center of the valley, and 12 miles from the city of Santa Barbara, is the little hamlet of

Carpinteria,

Which contains a store and post-office, butcher shop, two blacksmith shops, Chinese wash house, and the inevitable saloon, kept by a Spaniard, who gets but very little patronage aside from the Spanish population. There is a good wharf here, from which farmers ship their surplus produce in the fall. The early productions are sold at Santa Barbara and Ventura at remunerative prices. L.

Carpinteria, Cal., August 14, 1876.

[We shall be pleased to receive further notes from our correspondent of agricultural interests in the beautiful valley.—EDS. PRESS]

THE SWINE YARD.

The Berkshire Record.

We have given notice from time to time of the formation of the American Berkshire swine association, and of the record of thoroughbred hogs of this breed which they have in preparation. Concerning the work of the association we have received the following letter:

EDITORS PRESS:—The very favorable reception given the first volume of the American Berkshire Record prompts us to go forward confidently, believing the work will ultimately become self-sustaining. That the live stock breeders generally appreciate the service already rendered them by the record is clearly shown in the largely increased number of pedigrees promised for and now being received and arranged for insertion in the second volume. I herewith hand you a copy of suggestions, etc., governing applications for entry in volume second.—PHIL. M. SPRINGER, Assistant Secretary.

As we have in this State many breeders and owners of pure blood Berkshires, we print the following, which will be interesting to them:

Suggestions and Instructions,

Governing applications for entry in Vol. II., American Berkshire Record:

1. Send all information in your possession, concerning the breeding and purity of your stock.

2. Applications for entry should be signed by, or accompanied by the certificate of the breeder of animal, if such breeder is living.

3. An entry fee of $1.00 for each animal recorded will be required.

4. The immediate descendants of animals recorded in Vol. I. may be recorded in Vol. II.

5. The immediate descendants of animals not recorded in Vol. I. may be recorded, provided their sires and dams are admissible, and are also recorded in Vol. II.

6. Animals imported from England may be admitted to record upon satisfactory proof of purity of breeding and the fact of importation as claimed.

7. Unsound or unworthy individual animals should not be presented for registry. Such will not be admitted under any circumstance where facts proving their inferiority are made known to the Executive Committee.

8. The use of duplicate names should so far as possible be avoided.

9. The names of all animals mentioned in each pedigree, that are known to be dead, should be marked thus:—X.

10. The breeder of an animal is the party owning the animal at the time of service, and dictating the cross.

11. Approved full page illustrations of Berkshires will be admitted to Vol. II. Terms made known on application.

12. Facts relating to the history of recorded animals, setting forth the number or date of premiums taken, either by the animals themselves or their ancestors, will, if properly signed by the owners of such animals, be published in the form of an appendix in Vol. II., at a charge of five cents per word.

13. Transfers of the ownership of animals will be published in Vol. II., at a charge of 25 cents each. Blanks for such transfers will be furnished on application from this office.

14. The association having in its possession a vast amount of information, is enabled to assist parties in tracing and perfecting pedigrees. This service will be rendered gratuitously to patrons of the Record.

15. In Vol. I. may be found pedigrees of the more prominent families of Berkshires. The information contained in this work will be found serviceable to parties in preparing pedigrees for Vol. II. Price, $3.00, sent by express; or $3.30, post-paid.

16. For further information, additional entry blanks, transfer blank, or Vol. I. of the Record, address Secretary American Berkshire Association, Springfield, Illinois.

SHEEP AND WOOL.

Wool Growing in California.

EDITORS PRESS:—Will you give me some information in regard to sheep and wool raising in California? First, is the wool as good as raised in the States, or does the wool become thinner and coarser the longer the sheep are kept in the State, as is the case in Colorado and Texas?

What are fine wool sheep worth per head, and what is the average clip of wool per head?

What is wool worth per pound in the dirt or sheared without washing, and how much when washed on the sheep's back?

Can plenty of sheep range be got (without buying it) near the coast or in the San Joaquin valley, or where it is unnecessary to feed in the winter?

How much money would be necessary to start a sheep farm to make it remunerative?

Are the sheep given to the rot and the scab there as much as they are here, or are the sheep healthy?—WM. H. GREY, Scranton, Green county, Iowa.

Replies.

We indebted to C. H. Dwinelle, Esq., of Contra Costa county, for the following replies to Mr. Grey's queries:

The quality of California wool varies greatly, just as the climate, vegetation, soil, etc., vary. As a rule the best grades are produced along the coast, north of San Francisco, in the northern tier of counties, and on the mountain pastures of the Sierra Nevada; in short, where the climate is rather cool and there is abundant green feed for the greater part of the year. Similar good results are obtained on some of the reclaimed marsh lands, and on irrigated lands (where green feed can be had the year around) in the central part of the State, and in spite of the summer heat.

Some of the poorest wool comes from portions of the San Joaquin valley and the southern coast counties, where the dry season is long and where high winds at times fill the fleeces with alkaline dust and sand, rendering the wool dry and harsh.

Some of the wool raised in this State is certainly as good as could be raised from the same stock in any part of the world, and we have first-class specimens of almost every approved breed. It is easy to see from any Eastern market report that California wool does not average nearly so high as does that from some of the Eastern and Middle States. Some of the reasons for this are indicated above and there are others which will be easily understood. It is the general custom here to shear in the fall as well as in spring, and of course the staple is short in consequence. The reasons for frequent shearing are, that during the dry summer months the wool grows more slowly and has less oil than that produced in winter, and collects a good deal of dust and frequently seeds and burs; therefore if the fleece is carried a year there are two qualities of wool in the length of the fiber and usually a weak spot where the new growth, produced by the return of green feed, began.

As to whether the fleeces of sheep brought from the Eastern States to California, and their offspring, improve or not, probably depends on the care which is taken in their general management. We have known of parties here who bought imported sheep and turned them out with those raised in the country and accustomed to exposure at all seasons and often to short feed. Of course, animals used to shelter and generous feed not only deteriorate, but generally die under such treatment. On the other hand, breeders of first-class sheep, who have given their stock such care as they receive elsewhere, and used judgment in breeding, claim to have produced specimens in all respects superior to the originals.

In California, as well as Colorado and Texas, it has been a common thing for those starting the business to buy a flock of the common ewes of the country and breed them with blooded rams. Where this crossing is followed up judiciously, and the rams changed every two or three years for those of equally good or better blood, we believe that, with decent treatment otherwise, there is always decided improvement in the flock. Often the young stock is worth two or three times as much per head as the old ewes cost. If, however, the breeder is too economical, and after one cross tries to breed from his grade rams, he will most likely be disappointed.

It is true here as elsewhere, that "blood will tell," and low grade rams bred to similar or "native" ewes will probably give lambs showing the bad and not the good qualities of their parents. This may be the secret of the alleged deterioration of fine sheep in Colorado and Texas.

The price of fine wooled sheep is very variable. There are flocks kept for raising rams that would be thought very cheap at $50 per head right through. We believe a ram has been sold in the State as high as $1,500. Such as your correspondent probably referred to, well graded merinoes, can this year be bought for two to three dollars per head, or, perhaps, in some cases even less. The depression in the Eastern markets makes this the worst year for California wool growers that they have seen for a good while.

The spring clip sold at from 12 to 18 cents, but little of it bringing over 16. We saw one choice sample which sold for 24 cents. These prices are for unwashed wool. Buyers will not make enough difference to pay for washing the wool on the sheep and for the loss in weight.

We have met owners of large flocks who claimed an average of eight and even ten pounds per head. We believe that most are satisfied with six or seven for the year. This is for sheep that have nothing but the natural pasturage—no hay or grain. We do not like to give the weights that have been reached with the best of care, for we value our reputation for truth. If our Eastern friends wish to know what a prize fleece in California weighs, they must come and attend the shearing.

It is difficult to find range anywhere near market in California without buying or renting. Land rents at 10 to 30 cents per acre for sheep. The same can be bought at $4 to $10 per acre.

One acre to the sheep is the usual estimate. Twelve to fifteen hundred ewes should be bought to start with, and the breeder should have a thousand dollars at least as working capital.

The rot is a rare disease in this State, though common, we hear, in Oregon.

The scab is very common, and there is serious talk of securing such laws as are in force in Australia to prevent its spread.

THE VINEYARD.

Lone Hill Vineyard.

EDITORS PRESS:—Knowing that my farm and fruit notes from Santa Clara valley would be incomplete without a visit to Mr. D. M. Harwood's Lone Hill vineyard, which is located about nine miles southwest of the city of San Jose, I determined yesterday morning to treat myself to a drive in that direction.

Though somewhat out of my direct way, I turned my horses' heads towards San Jose, that I might enjoy again, as I often do, a drive through the grand old Alameda avenue in the cool, sweet, bracing air. And as I passed over the smooth clean road, under the shade of the neatly trimmed old elm trees, with fine tasty grounds and beautiful houses on each side nearly all the way, I was reminded of once saying to the roaders of the PRESS, "that the once lonesome old avenue was fast becoming a busy street."

I drove out of San Jose on the Monterey road, which, for a few miles at least, is smooth, well graded, and kept free from dust by frequent sprinkling.

At the "Bridge house," I was compelled to leave the broad, clean Montery road, for the rough and dusty Almaden road. But I did not stop at the Bridge house, and cannot therefore inform the readers of the PRESS how it is kept, or just what they keep. The name of the house was no doubt suggested by its location being near the bridge. And I suppose it was built small, to correspond with the size of the bridge, which is very small; and the creek which it spans is not only very small, but is also *very dry*; and I thought perhaps that in the "eternal fitness of things," there might be some corresponding condition or feeling between those who patronize the Bridge house and the creek itself.

I notice along all these much used thoroughfares there are a good many of these little wayside, cross-road houses, such as the Bridge house, Half-way house, Five, Seven and Ten-mile houses, etc. And I suppose those skilled in the business of keeping these places of entertainment can tell about how far the average California teamster can drive a six-mule team on a hot dusty day, without stopping to—take something, and blow and water his team.

But as the goods and ills of this life are wonderfully mixed up, running into and over-lapping each other in every direction, so whatever of evil may result from these numerous wayside watering places, they are certainly very convenient—indeed, indispensable, in some shape, to the life and comfort of the faithful dumb animals on whose labors we are so much indebted for many of our luxuries and comforts. And a lively spirit of competition among those interested in this business prompts them, not only to excel in their indoor accommodations and attractions, but to vie with each other in their arrangements for the convenience and abundance of pure water for teams as well.

Besides a large amount of other business and travel, there is yearly passing over this rather obscure and unpretentious little road a larger amount of quicksilver, on its way to the markets of the world, than is carried over any other road in the world—except, it may be, that which comes from old Almaden, in Spain.

But I must hurry up, or I will not get to

Lone Hill Vineyard

Till after dinner time, which would be a sad disappointment—to me, at least.

Leaving the Almaden road at the Five-mile house, I took the road running west towards Los Gatos and the foothills.

As I passed along I soon observed that the land gradually assumes a more gravelly and sandy appearance, with some fine looking vineyards on each side of the road.

Lone hill now appeared in the distance, some degrees to the left of the line of the road; standing out alone some miles from the mountains; and looking over the grain fields and vineyards like some high mound, crowned with scattering clumps of low topped trees and spreading shrubs.

After leaving the main road some miles further along, and turning round the foot of the hill from the west, I drove through the open gate, and brought up in the wide, cool shade of the house tree—a large old oak, and was happy to find the hospitable and gentlemanly proprietor at home; though his grays were standing hitched to the fruit wagon, loaded with boxes of grapes, just ready to start for San Jose.

After a good rest and a pleasant talk in the shade of one of the huge arms of the old tree, with Mr. H., I took a drive over the place, and as we passed round section after section of the beautiful vineyard, on clean, smooth drives, crossing each other at right angles and at uniform distances from each other; looking at and admiring the luxurious vines, all loaded with luscious grapes of many varieties; I thought it was worth a far longer trip than I had made, to see such a beautiful sight. "If he who causes two blades of grass to grow where but one grew before," is entitled to be called a benefactor of the human race surely the man is entitled to some credit who by years and years of persevering toil and care has transformed 155 acres of wild land,

Covered with Poison Oak and Brambles,

To such a beautiful and fruitful vineyard as lay before us. Mr. Harwood's tract of land consists of 220 acres, 155 of which is covered by his vineyard; 70 acres are used for grain and farm purposes, and the "Lone hill," which is used for pasturage and furnishing fire wood, occupies about 15 acres. He has also a small orchard of well selected fruit, looking well and bearing abundantly.

The location of the place is very desirable both as regards climate and scenery; being in what is known as the warm-belt region of the foothills, peculiarly favorable for raising fruits of superior flavor and appearance; while the grand old mountain near at hand on the west, rising from 3,000 to 4,000 feet in hight above the valley, affords an endless variety of wild mountain views, of which the eye never tires.

Mr. Harwood's oldest vines were planted 11 years ago last winter, and planting being continued from time to time till within a few years, all are now in full bearing. Of the California grape he has about 100 acres, and 55 acres of the choicest foreign varieties.

Year before last he sold 400 tons of grapes, besides making some wine. Last year, our dry year, he sold about 300 tons. This year he estimates his crop at an average as to quantity, but as to quality, it is very superior; having taken great pains in summer pruning the whole vineyard, so that the grapes may have all the sun and air needed to produce the best results in ripening; besides making it very convenient in getting around and through the vines, in gathering the crop. Mr. Harwood's grapes have a fine reputation as

Foothill Grapes,

And he finds ready sale for them in San Jose and San Francisco, preferring to sell his grapes to making them into wine. From former years he has about 10,000 gallons of wine on hand.

I noticed on a plot of strong vines that had been cut off and grafted to the White Muscat of Alexandria only two years ago, there was a full average crop of grapes, proving how soon worthless vines may be changed to the most desirable varieties. G. W. M.

Santa Clara, Cal., August 22, 1876.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Copies of the Constitution and By-Laws of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

P. of H.—Subscribers who pay fully one year ($4) in advance for the Pacific Rural Press can receive the California Patron *free*, or other premiums. See our premium list in another column.

Grange Directory.—A full list of Subordinate Granges, Masters and Secretaries, of California and Nevada, is published as often as once a quarter in this department. See issue of July 8th for latest insertion.

Proposed Constitutional Amendments.

At the July meeting of the Executive Committee of the State Grange, the following amendments to the State Grange Constitution were proposed; these will come up for action by the State Grange at its next session:

Amend Sec. 3 of Art. 3, so as to read as follows:

Sec. 3. There shall be an Executive Committee of the State Grange, consisting of three members, and the Master, who shall be Chairman. The term of office shall be one year, provided that the first election under this section shall take place at the annual session in 1877.

Amend Sec. 15, of State Grange Constitution, so as to read as follows:

This Constitution may be amended at any regular meeting of the State Grange, provided the proposed amendment shall be presented in open Grange, at least 24 hours before action is taken by the Grange on said proposed amendments.

Strike out all of Sec. 2, Art. 6.

In Sec. 3, Art. 7, strike out the word "Treasurer," and insert "Secretary."

In Sec. 4, Art. 7, strike out the words "and the degrees conferred," and insert in lieu thereof "the number initiated."

Add to the end of Sec. 1, Art. 12, after the word "demit": Provided that the demit may be renewed for six months on payment of dues for the previous six months to the Grange issuing the demit.

Add Sec. 2 to Art. 5, as follows: No Subordinate Grange shall be entitled to representation in the State Grange, whose dues are nu paid for more than one quarter.

Amendments Proposed to By-Laws, State Grange.

Amend Sec. 9, Art. 1, of By-Laws, by striking out the word "Treasurer," in the second line, and insert the word "Secretary." Strike out all of this article after the word "Grange," in the seventh line.

Amend Sec. 2, of Art. 7, by striking out the word "ten," in the tenth line, and insert in lieu thereof the word "three."

Proposed Amendments to By-Laws of Subordinate Granges.

Amend Art. 4, Sec. 6, by striking out the words "will be expelled," in fourth and fifth lines, and insert in lieu thereof "shall be liable to expulsion;" also strike out all after the word "notice," in seventh line, and insert instead "and upon a majority vote of the Grange in favor of expulsion, the Master shall declare such member expelled, and order his or her name to be stricken from the roll."

Amend Sec. 3, Art. 1, by striking out all after the word "chosen," in fourth line, and insert as follows: "After being installed shall serve until their successors are elected and installed.

Strike out all of Sec. 1, Art. 2, and insert in lieu thereof, as follows:

Sec. 1. Membership—Any person engaged in agricultural pursuits and having no interest in conflict with our purposes, of the age of sixteen years, duly proposed, elected, and complying with the rules and regulations of the Order, is entitled to membership and the benefit of the degrees taken. Every application must be accompanied by the fee of membership. If rejected, the money will be refunded, and no petition shall be received from a rejected applicant until six months shall have elapsed after such rejection. Applications must be certified by members, and balloted for at a subsequent meeting. It shall require three negative votes to reject an applicant.

Amend Sec. 2, Art. 4, by striking out the words "shall be fined a sum not exceeding ten dollars ($10.00) and."

Amend Sec. 4, Art. 4, by striking out the words "in the persons of," and insert in lieu thereof the word "through."

Also in same section strike out the words "subject to ruling of the State Grange," on the eleventh line of said section.

The Wheat Enterprise.—We are informed that the Grangers' ship, the *Dryad*, will complete her cargo by Saturday of this week and will get off early. In this connection we would remind all interested of the meeting to be held in this city, September 12th, to which all wheat growers are invited.

Eden Grange, at Haywards, commenced a new class of four candidates, Saturday, Aug, 26th.

Why Sam Reed Did Not Get to Grange Meeting.

Editors Press:—I will give you an item you may tell to all the world; it may be new to some—it was to me. The weeds we call nettles have been the cause of all my trouble this week, and almost caused me to lose a good mare by driving through a bunch of stinging nettles, not knowing that any harm, more than a few moments' pain, would come of it. To my surprise my mare became wild! crazy! mad! She reared, plunged, threw herself, broke out of the harness, and seemed to be blind and uncontrollable for some time. Not knowing any better remedy I applied salt and water, when in perhaps an hour and a half she was quiet and eating. I thought she was well and in her right mind and I could ride her. No indeed! Although perfectly gentle and kind, true to pull, docile in every respect when there is nothing to punish her, now she refuses to go, and when urged she "bucks," rears and falls back, like unto a Spanish mule or a mustang that has been "locoed." This is the reason that I was not at Grange on Saturday, and that's the reason that I did not get some names for your paper, and that's the reason that I am lying around the house with a bruised knee, a sore arm and am a "bruised Reed" generally for the past week—not the bruised reed of which we read in the big book, for no one has come out in the wilderness to see this bruised or broken Reed. I have suffered and endured alone and of the people there was none with me.

Since this circumstance occurred two men have told me that they each have lost good horses by riding or driving through nettles. James Cruthers says in 1852, near Pacheco's ranch, he lost two good horses by his vaqueros running after cattle amongst nettles. Mr. Caldwell, a sheep man, reports about the same; and also states that a horse stung by nettles on his legs and sides and then rode or driven into water will expire almost immediately. If that be so (and I think from what I have seen it is) every person should know it and avoid the stinging things, except to destroy them.

I have been reading your valuable paper for a number of years. I like it; could not well get along without it; have always believed in it and relied upon it as correct, exact, precise, etc., but how to reconcile the second paragraph on page 90 of Rural Press of August 5th, 1876, where a piece of land a half a mile wide and three-fourths of a mile long can be squeezed into 40 acres, puzzles a Granger. Perhaps C. N. W. can make it plain.

Frost has come already and nipped the tops of our vines. August 15th and 16th there was frost in Linn's valley. Sam Reed.

Kern Co., Cal.

[Our correspondent, C. N. W., or our printers, made a mistake in the matter Mr. Reed alludes to. At this distance from the place we cannot tell whether he made the sides of his parallelogram too long or his acres too few. Of course one or the other statement is incorrect.—Eds. Press.]

The Work to be Crowned.

We regret that we did not have earlier information of the ceremonies with which the Patrons of Contra Costa county propose to crown their noble work, the warehouses and the wharf at Martinez. We should have liked to have noted the matter sooner for our readers. We find in the Contra Costa *Gazette* the following:

In compliance with a generally expressed desire of stockholders and friends, the directors of the Grangers' Warehousing and Business Association have determined to invite the Patrons of the county and friends of the enterprise to hold a basket picnic festival on Saturday next, September 2d, in celebration of the accomplishment of the first important co-operative undertaking ever engaged in by the Patrons or people of the central portion of the county. The consummation of this undertaking is an event that it is highly proper should be in some way signalized or marked, and in none can it more suitably be done than by such a festal reunion as is proposed of the people in whose interests the enterprise was projected and prosecuted to such satisfactory completion that they now have a deep water harbor, with shipping and storing facilities of their own, such as the people of no other agricultural district in the State can claim. Besides its social and festal attractions, the proposed meeting will afford many who have not yet done so an opportunity of inspecting the fine improvements and property of the association, and enabling them to form a judgment as to how well the trust confided to the Directors has been fulfilled. We understand that a number of friends from abroad will attend the festal celebration, the exercises of which will be graced with some speech making, as well as banqueting and dancing. The Contra Costa brass band is to furnish music; and the last finished of the two fine warehouses will be used for the occasion, before it is employed for storage purposes. We are authorized by the Directors to announce that they will be glad to welcome all friends who wish to join in their festal celebration, whether members of the Association or not, and a pleasant time may be calculated on.

From the Granges.

Rincon Grange.

Editors Press:—Thinking that some of your numerous readers would like to hear how we are getting along in this part of God's moral vineyard, I thought I would write you a few lines. We have just harvested the largest crop of grain that ever was raised in this part of the country. The question now is, what will we do with the surplus? Our merchants only offer us $1.15 per hundred for our wheat, and 62½ cents for our barley in sacks. The consequence is, the most of us are holding or waiting for something to turn up. How long that will be none of us are capable of knowing. The merchants seem united or combined together and refuse to give us any more.

But why do not the farmers unite? Ah! that is the question. I have often thought of the few lines I saw in the Press recently, written by one John Taylor (a man of my name). Suppose the farmers should strike for one year and withhold their produce from market, refuse to sell at any price, what would be the consequence? A perfect stagnation of business of all kinds. Manufactures would stop, commerce would cease to flow. Starvation and death would follow with all its horrors. We know we hold the very material that keeps soul and body together, yet we can't set any price on it; we just let them take it at their price. This problem I hope will be worked out some time.

The Grange is our school, where we expect to learn to solve all problems pertaining to our interest. I wish to tell you about our Grange and the grand harvest feast we had on the 15th of this month. At a meeting of Rincon Grange, No. 227, held on the 1st of August, it was resolved that we should celebrate our second anniversary on the 15th. So there was a committee appointed to make the preliminary arrangements. Invitations were sent to San Bernardino and Riverside Granges, and also to all our friends and neighbors. We wanted to let the outside world know that we were still alive. It had been predicted by some when we organized that we would not live six months.

At the appointed hour the people commenced gathering at the beautiful willow grove of F. M. N. Woods, Grangers and all. About 11 A. M. the members of the Grange clothed themselves in their regalias and mounted the platform.

W. M., W. T. Stanfield called the meeting to order, and stated the object was to celebrate the second anniversary of Rincon Grange; that as we had just passed through the most bountiful harvest we ever had on the Rincon, it was right and just that we should have a grand harvest feast.

Next was prayer by the W. C., J. M. Hathaway. Music followed; then the declaration of purposes was read by the Worthy Secretary, your correspondent. Afterward came the address of the W. L., H. C. Brooke, a copy of which I send you for publication in the Rural Press. After beautiful Grange songs, a recess of 15 minutes was given, at the end of which the feast or dinner was announced.

The long table was filled to overflowing with the best the county could afford. Fruits of almost every variety, with the large, delicious watermelone, cakes, pies, turkeys, chickens, pigs, sheep, and in fact almost everything that was good. So we feasted and talked about an hour, then all retired to our several homes, seemingly well pleased with the day's entertainment.

So you see Rincon Grange is still alive and likely to live to celebrate another anniversary. We have had a hard road to travel, but we have surmounted all obstacles that have been thrown in our way, which I assure you have been many. John Taylor, W. Sec'y.

Chino, San Bernardino county, Cal.

[We are glad to hear such cheering tidings from Rincon. The address of W. L., H. C. Brooke, is received, and we can see why it was greatly enjoyed by those who heard it. It is of considerable length, and we fear we cannot do more than print extracts from it at some future time.—Eds. Press.]

A Movement for Direct Trade.

A meeting was held in Oakland on Saturday evening, Aug. 19th, under the auspices of Temescal Grange, to consider the abolition of a license for vegetable selling, and thus foster a direct trade between the farmer and the city consumer. As this matter may be important in different parts of the State we quote a report of the meeting from the Oakland *News* as follows: Mr. J. V. Webster, Master of the State Grange, was called to the chair, and Mr. John Collins was elected Secretary. The Chairman, in taking his seat, made some remarks concerning the object of the meeting. He thought the tax exceedingly unjust and oppressive to the producer of fruit and vegetables, and also to the consumer. The tax tended to drive out of the market fresh products and to send them to San Francisco, and was an unequal and unjust measure.

Mr. Christian Bagge was then called upon, and took the same view, advocating the repeal of the tax and suggested that a lot, such as the plaza opposite the Court house, for instance, should be purchased and used as a market place, where the farmer could dispose of his produce directly to the consumer.

Capt. E. M. Gibson was the next speaker, and confined himself to the legal aspect of the question. He said that after a casual examination of the law he must come to the conclusion that a license imposing a tax upon the producer for selling his own produce was clearly unauthorized by general statute, not by the constitution, although the latter had nothing bearing directly upon the subject. He also considered at some length the question from a moral and economic standpoint, and expressed his surprise that the hall was not crowded by the citizens of Oakland, who were immediately interested in the repeal of the tax.

At the conclusion of Mr. Gibson's forcible argument the following resolution was adopted:

Resolved, That it is the sense of this meeting that the license now enforced by a city ordinance to regulate the sale of farm produce by the producer ought to be abolished.

The meeting was then adjourned.

By conversing with several citizens, including some of the city officials, the reporter found a unanimous opinion prevalent that the offensive tax ordinance ought to be repealed.

Fruit for the Centennial.

The Centennial fruit car was loaded on Tuesday at San Jose under charge of J. D. Blanchar. Mr. Blanchar expresses himself under great obligations to Bro. Settle, Master of San Jose Grange, for assistance in finding fine samples of fruit, and also for contributions of the finest Santa Clara fruit from his own orchard. John Rock, of San Jose, contributed samples of 18 different varieties of choice pears and six of plums. Among other contributors were the following: Gen. H. M. Naglee, O. Cottle, S. A. Moulton, A. Campiglia & Co., W. Cozzens, D. C. Vestal, J. Q. A. Ballow, Mr. Mohan, J. H. Flickenger, D. M. Harwood, O. W. Farnsworth, Mr. Oliver and others. Mr. Oliver's contributions were some of the finest specimens of plums from trees two and three years old.

There have been received, by express, contributions to the shipment from J. Lewelling of St. Helena, R. F. P. Moore of Suscol, and R. B. Blowers of Woodland, who contributed the choicest grapes.

The car was stopped at Sacramento on Wednesday and finished the load with three tons of grapes and other fruits from Vacaville. We regret that we have not a full list of the names of contributors to the enterprise.

The fruit car which left here last week under charge of A. W. Thompson reached Chicago in good order and went on to New York.

J. G. Bowee, Jr., has been chosen Secretary of West Grafton Grange, Yolo county, to fill the vacancy caused by the death of George W. Park.

In Memoriam.

PLACERVILLE GRANGE, No. 242.

Whereas, The great Master of the Universe has removed from our Order Sister S. Towne; therefore

Resolved, That in the death of Sister Towne Placerville Grange has lost a worthy member, the husband a loving wife, a son an affectionate mother, and relatives and acquaintances a highly esteemed friend.

Resolved, That we, as a Grange, extend to all our deceased sister's friends our heartfelt sympathy in this their great and irreparable bereavement, and sincerely hope when our labors on life's farm here below are ended, we may all be as well prepared to enter the great field above in obedience to the call of the heavenly Master as the departed sister whose demise we now mourn.

Resolved, That as a token of respect, that the usual badge of mourning be worn 30 days.

Resolved, That a copy of these resolutions be sent to the family of the deceased, be placed on the minutes of the Grange, and be sent to the *Mountain Democrat*, the Placerville *Republican* and the Pacific Rural Press for publication.—Mrs. C. Burnham, Mrs. C. A. Cook, F. M. Dickerhoff.

WEST GRAFTON GRANGE, NO. 89, Yolo county, August 19th, 1876.

Whereas, It has pleased the Great Master of the Universe to remove from our midst our late brother and Worthy Secretary, George W. Park, and

Whereas, It is but just that a fitting recognition of his many virtues be had, therefore be it

Resolved, By West Grafton Grange, No. 89, P. of H., that while we bow with humble submission to the will or decree of the Most High, we do not the less mourn for our brother who has been taken from us.

Resolved, That in the death of George W. Park this Grange laments the loss of a brother who was ever ready to proffer the hand of aid and the voice of sympathy to the needy and destitute of this Order; an active member of this society whose utmost endeavors were exerted for its welfare and prosperity, a friend and companion who was dear to us all, a citizen whose upright and noble life was a standard of emulation to his followers.

Resolved, That the heartfelt sympathy of this Grange be extended to his relatives in their affliction.

Resolved, That these resolutions be spread upon the records of this Grange, and a copy thereof be transmitted to the relatives of our deceased brother, and to the Rural Press for publication.—[Committee: S. M. Mapes, A. W. Morris, E. Harney.

EDEN GRANGE, Haywards, August 22d.

Whereas, It hath pleased our Divine Master to remove from our heretofore unbroken Grange circle our cherished sister, Margaret Pearce, to that circle above, where the weary are at rest, in that house not made with hands, but eternal in the heavens.

Resolved That in obedience to the call of our Heavenly Master, Eden Grange has parted with a kind hearted and faithful Patron, a most worthy sister, and that we most sincerely mourn the broken link.

Resolved, That we extend our most heartfelt sympathies to our bereaved brother Secretary, who has thus been separated for a time from a faithful and loving wife, as also to her mourning relatives and friends.

Resolved, That this sincere expression of the Grange be placed upon our records, a copy thereof be sent to our bereaved brother, the local papers and the Rural Press for publication.—[Committee: Miss J. Sharla, A. Harrington, Mrs. R. Fierham.

Agricultural Notes.

California.

ALAMEDA.

The Livermore Harvest.—*Enterprise*, Aug. 26: During the week there has been brought into town for storage and shipment, principally for the former, upwards of 15,000 centals of wheat. Not one-tenth of the grain in the valley is yet threshed, though the warehouses already present a "bumping house" appearance.

ALPINE.

August Frost.—*Chronicle*, August 19: A heavy frost visited this section on Monday night last and blighted the vegetables throughout the county and Carson valley, Woodford's alone escaping. Jack Frost left ice as a memento of his visit to this town.

BUTTE.

Volunteer Crop.—Butte *Mercury*, Aug. 18: Just before it became time to cut the grain and after it had ripened, a strong north wind came that lasted three days. More or less of the grain all over the Sacramento valley was shelled out, and still lies upon the ground. We are told by farmers in this part of the county that there is more than enough to seed every acre upon which grain grew the past year. Of course some fields did not suffer much, and they will need sowing again, but the great majority are all ready for the harrow or cultivator. It will not cost half so much to put in the next year's crop as it did the last.

Sheep.—The sheep men in this county have been making strenuous efforts before the Board of Equalization to have the valuation of sheep reduced to one dollar per head, claiming that that was the full cash value. The deputies assessed them at $1.50 and $2. The Board hold that $1.50 is low enough. The owners claim that they can buy all the sheep that a man wants for one dollar per head, and if so they ought not to be assessed at a greater sum.

COLUSA.

A Fair for Colusa.—*Sun*, Aug. 26: We have often mentioned the subject of a county or a district fair to be held at Colusa, but have taken no active part in securing one to be held, preferring to wait for the right time. Colusa county is plenty able to hold a fair of her own, but our agriculturists are mostly new in the business. The majority are not yet "fixed" as they want to be, and a fair now would not be a success. We understand, however, that there will be a proposition made to hold the Northern District fair alternately at Colusa, Chico and Marysville. If the farmers of the upper Sacramento valley will take an interest in the matter, and all promise to lend a helping hand, such a fair would be attended with good results.

Fruit on the Plains.—F. D. Grsham, of Freshwater, brought us this week a box containing several varieties of very fine grapes, grown on his farm on the plains. Among the varieties we recognized the Black Hamburg, the Flaming Tokay, and the White Muscat. There is not a farmer on the plains that cannot have grapes and other fruit grown fresh on his own farm; and it is a wonderful saving in the expenses of a family. One huudred grape vines will grow on a quarter of an acre of land, and after the first year the expense of growing them is merely nominal. Yet what an immense amount of wholesome and palatable food this quarter of an acre will furnish. How much would 100 vines, 30 peach trees, half a dozen plum trees, 10 pear trees, and five or six fig trees, in full bearing, add to the value of a farm? It costs but very little to put them there. The walnut tree can be grown around the outside edges of the farm, where they will afford shade, produce a valuable nut, and cost almost nothing. Since our article, a short time since, on the walnut, several gentlemen have told us that they had transplanted walnut trees and that they had not done well for the first year or so, but all said that the tap root of the plants had been cut. One year from the seed, the root of a walnut is as long as the top. The walnut should be planted where it is intended to grow. The fact is, almost anything can be grown on the plains nearly as well as on the river, if farmers will go about it right.

CONTRA COSTA.

The Tule Factory.—Antioch *Ledger*, Aug. 26: The owner of the tule factory, Mr. Shaffer, has now leased the property to our townsman, M. A. Morrissey, who has already commenced active operations. Chinamen are employed to cut and deliver the green tules, of which an abundance are easily attainable in the immediate vicinity of the factory. By means of machinery operated by steam power the fibrous tule is converted into upholstering material, which is said to excel the Excelsior, Eureka, or New Orleans moss. Mr. Morrissey is active, enterprising, persevering and will either make the business a success or demonstrate its impracticability.

KERN.

Melon Syrup.—*Courier*, Aug. 24: We have received from Dr. Stockton a sample of melon syrup. It is made from the juice of the watermelon reduced by evaporation according to the usual simple process. It is about the consistency of ordinary syrups, coarse in grain but rich and of a fruity color, very pleasant to the taste. According to the process of the doctor it takes nine gallons of juice to make one gallon of syrup, showing an extraordinary percentage of saccharine matter in the juice of the melon. The doctor thinks that every family should produce all the sweetening that is required for domestic purposes, that it is well adapted for such uses, children having once tasted it preferring it to any other kind. There is no expense attached to its reduction, and it ought to become very popular with our farmers. From an acre and a half of melons the doctor is now culling 800 melons per week, which he is making into syrup, of which he will have a quantity probably in excess of his own wants. He is one of the most enterprising and practically sagacious of our citizens, bringing to the pursuit of agriculture the experience of a long and active life, together with the auxiliaries of not indifferent scientific attainments. We trust his example may become contagious, or at least stimulate a worthy emulation among others.

Editors Press:—Our harvesting is all done up and most of the threshing also. Much grain has turned out poorly in consequence of the ravages of the jack rabbits, which are fearfully numerous here, and increasing very fast. There is a petition now before the county board praying for a bounty on their heads, which, if granted, will I think be of great benefit to the county. Weather is quite pleasant at present; in fact we have been let off so far with very little "red hot" weather. Although our island here, at a distance, has the name of being unhealthy, I do not know of a single case of sickness in our neighborhood. Truly pleased with the Press, I remain its reader,—C. B Caldwell.

LAKE.

Good Oats.—*Bee*, Aug. 24: Mr. Wm. Ballinger, of Bachelor valley, left with us yesterday as fine a ssmple of American oats as we ever remember to have seen. The stalks are eight feet high, and the grains are well filled. It was grown upon his farm near Upper lake.

MONTEREY

Fish.—*Democrat*, Ang. 26: Our Monterey fish society received on Thursday from Mr. Redding, State Fish Commissioner, two cans, containing 100 each, of Schuylkill cat-fish, being from two to six inches long, and every one in perfect condition. They were immediately placed in the waters previously selected as most appropriate to the habits of the fish, the experiment being so far a perfect success. One lot was put into the Sausal lagoon, abreast of the Armstrong house, on the east side of the water, and the other was taken to the Espinosa lagoon, northwest from Santa Rita, where they were set adrift in a body of water sufficient to contain myriads of their progeny.

NAPA.

A Long String of Scalps.—*Register*, Aug. 26: Mr. Jacob Groh, of Capelle, was in town Tuesday proving up his squirrel scalp bonanza. Since the 18th of last month he has gathered 9,942 squirrel scalps, for which he is allowed out of the bounty fund, five cents each—in the aggregate $497.10. The scene of Mr. Groh's operations lies in Gordon valley, and his method of killing is by administering cold poison. Early in the morning he drops from four to six grains of the poison in front of the squirrel's hole, and repeats the dose four hours later, when the fatality in the squirrel family begins to show itself in all directions. Mr. Groh gives his entire time to the business, and well he may as long as his game is so numerous, for it is proving exceedingly profitable to him and must be effectually ridding Gordon valley of the squirrel pest.

Grape Syrup.—*Star*, Aug. 26: Mr. J. J. Bruce shows us a sample of grape syrup made at Weinberger's in the syrup pan, the sending for which we referred to some time since. Though yet containing considerable acid, it is pleasant to the taste, and we hope may yet become an important avenue of disposition of our Mission grapes, which are peculiarly suited to it.

Blackberries.—St. Helena *Star*, Aug. 26: The blackberry season is about closed, after a long and prosperous run. It has been a good year for the growers, for they have had good crops and fair market; also for consumers, for they have been served with a fine article at a cheap rate—six cents a pound by the quantity. Messrs. E. Spence, E. J. Church and A. Potterton have been the three principal producers, and they have raised probably 10 tons, worth at wholesale rates $1,200. They have supplied the St. Helena market, and have sold largely also in Calistoga, Lake county and adjoining communities. The business is being reduced to a system here, and promises to make in future an important source of St. Helena revenue. Mr. Spence irrigated thoroughly, and thereby largely prolonged his crop.

Hungarian Prunes.—Henry White places us under obligations for fine samples of German prunes grown on his fertile land on Napa river. These prunes, by the way, are fast coming into notice, and promise with the enlargement of the fruit drying business to assume a prominent importance among the fruits of Napa valley. They owe their introduction here chiefly to the example of Mr. Grœzinger, of Yountville, who has shown a most commendable zeal in introducing whatever will improve the resources and industries of the country. The largest and finest variety of the prune we have seen is the "Hungarian," grown by E. M. York. This is probably three times as large as the "German," and we think of a superior flavor for eating as a green fruit, but whether as good or not for drying, we do not know. Those of Mr. York's have shown the singular quality of growing almost altogether double. Whether this is a characteristic of the variety generally, some better pomologist than we are can investigate.

SACRAMENTO.

Stock at the State Fair.—*Record Union*, Aug. 24: The following applications for stalls at the Park have been made and are noted in the office of the Secretary of the State agricultural society: Mrs. R. Blacow, 10 stalls for sheep; M. A. Littell, eight for horses; J. C. Simpson, four for horses; D. M. Reavis, 20 for horses and 20 for cattle; George Scott, 10 for cattle; L. C. Powers, 10 for cattle; M. Howell, two for horses; P. Stanton, 11 for cows and four for calves; estate of G. N. Swazy, eight tor cattle; S. S. Beals, two for horses; G. A Johnson, one for horses; J. M. Nye, two for horses; A. L. Courtney, one for horses; A. Cornett, one for horses; Daniel Flint, one for horses; H. B. Cotter, one for goats; A. C. Manton, two for horses; H. Cummings, two for goats; Mr. Starks, three for horses; M. Toomey, two for horses; J. W. Richmond, one for a stallion; E. D. Shirland, six for goats; Colonel Dorsey, two for horses; E F. Rogers, one for a horse; Moses Wick, 17 for cattle; Malone & McCord, three for horses; Mr. Lehigh, three for horses; Mr. Perrin, one for a horse; Mr. Ainsworth, one for horses; M. G. Butler, two for horses; E. M. Skaggs, one for a horse; Robert Peck, 15 for cattle.

SANTA BARBARA.

Cattle Disease.—*Press*, Aug. 19: Some of the cattle in the northern part of the county are dying from an affection which when it attacks is of unerring fatality. This disease, so far, has attacked only imported blood, and in good condition. Spanish stock has not suffered. Mr. Alfred Den has lost eight fine cows and two bulls—of the best in his herd. The disease, it is thought, is disappearing. This disease appeared on the Dos Pueblos rancho in former years, but has always been confined to fat stock just brought to the ranch. It has never affected lean stock, and never before this year has it attacked horses—one of Mr. Den's horses now being ill with it. Mr. Welch, on the same rancho, has lost several head of cattle from the same cause. Last year, Col. Hollister, on the same rancho, lost by disease six valuable cows from a herd of 21 thoroughbred Short Horns imported from Ohio to Los Angeles county, and subsequently acquired by the Colonel. The ailment which carried off these cattle is supposed to have originated in their eating the salt marsh grass of the low lands in Los Angeles county upon which they were kept before they were taken to Dos Pueblos rancho. We are not aware that the ailment had any symptoms in common with the disease which has attacked Mr. Den's cattle.

Almonds.—Colonel Hollister's almond grove near Santa Barbara will yield about 51,000 pounds of almonds. This is three times the yield of last year. At 16 cents per pound this will give a gross return of $8,160, and calculating on the basis of former years, will net the owner $6,160. This orchard has only commenced. In a few years it should return $30,000 per annum.

SANTA CLARA.

Ranch Segregation. — San Jose *Mercury*, Aug. 22: Daniel Murphy, Esq., the wealthy land owner, was in Gilroy the other day, and we learn from the *Advocate-Leader* that the surveyors are now at work surveying the San Martin ranch for the purpose of segregation. This ranch is located just north of Gilroy, the southern line of it being about four miles from the town. It contains over 9,000 acres and is composed of as fertile farming land as can be found in the State. Mr. Murphy has not yet decided as to the size of the tracts into which he will divide it, nor will he do so until the general survey is completed, when he will decide how to divide to the best advantage. It will no doubt, however, be divided into tracts of from 40 to 160 acres. He expects to have the survey completed and everything in readiness to place the land in market about the first of September. Should this enterprise prove satisfactory and he meets with the ready sale of this tract, he also contemplates segregating his ranch near the Eighteen-Mile house, which embraces between 6,000 and 7,000 acres. The segregation of these tracts will furnish homes to upwards of 200 families, the trade of which belongs to and will naturally come to Gilroy. In the event of the successful settlement of them, we understand that James Murphy, Esq., also will segregate his immense tract of land adjoining this and very nearly equal in extent. We hope to see this work go forward, as it will be an advantage to the county and State and all concerned.

SANTA CRUZ.

Tobacco Culture.—*Courier*, Aug. 25th: We saw a thrifty growth of tobacco, about six miles up Blackburn gulch, last Monday. The patch covers about half an acre, and numbers about 2,000 plants. The plants are of the Pryer and fine Havana cigar variety. W. C. Fosnot is the owner of the patch. He says he has not seen or been bothered with a single tobacco worm as yet, but a kind of flea, resembling a fly in looks, eats holes in the leaves of the Havana brand. The plant of this last named variety looks like a cabbage, but the stalk is longer, the leaves do not form so close to the ground, and it does not form a solid head like the cabbage. This gentleman expects to have a good yield, and if it does not meet with ready sale he will manufacture it into cigars. Some of it is already in process of curing, which has a rich yellow color. He is only experimenting with this lot, and if it turns out as well as he expects, he will next year plant a large crop of it. Mr. Thompson, living within one and a half miles of Corralitos, raised a few hills of tobacco this year. A leaf from one of the plants measured 18x36 inches. The yield is very promising, and demonstrates very clearly that this plant can be raised in this section very profitably.

Coralitos.—Harvest is about over here. The yield averages about 25 bushels to the acre. Two steam threshers have been kept busy in this section for some time past in threshing out the grain. Thomas Fallon, of San Jose, who owns a seven-acre vineyard about seven miles north of Coralitos, has all the necessary arrangements made to begin making wine in a very short time. He has fourteen different kinds of choice grapes, and expects to make about 10,000 gallons of the sparkling beverage. The fruit drying season is here, and every available foot of house covering exposed to the sun is covered with green fruit, in process of curing. We have raised some of the finest peaches, plums and other varieties of fruit, in and around Coralitos, that can be found anywhere. Our orchardists are sending great quantities of their productions to the Salinas valley and other markets.

Tan Bark Oak for Chairs.—The new chair factory on Soquel creek is using the tan bark oak, which has been allowed to rot in the mountains for so many years by the thousands of cords. Mr. Sherman tells us that this wood is susceptible of a high polish, is very durable, and is hard to distinguish from the hickory of Eastern States when it is dressed. They were told that furniture could not be successfully made out of this timber, but they have demonstrated that it can. They can make an extra quality of chairs 20 per cent. cheaper than the same article can be imported, and are the only manufacturers on the coast that make other styles than the rawhide bottoms. The cost of the lumber is about $20 per thousand feet, whereas the same material would cost $120 if shipped here from the East.

SAN JOAQUIN.

A Fatal Fire. — *Independent*, August 22: Shortly after nine o'clock on Monday evening, a barn belonging to Washington O. Lewis, who lives on the sand plains, three miles east of Lathrop, near the Union school, was totally consumed by fire. Three sons of Mr. Lewis were sleeping in the barn at the time, and when the fire was discovered the efforts of Mr. Lewis and the neighbors were at once directed in rousing the lads from sleep. This they succeeded in doing, and the two older boys escaped unharmed, but for some reason the youngest of the three, a boy ten years of age, became bewildered with fright or suffocated with smoke, and did not follow as the others supposed he was doing. The barn contained four fine horses, the winter's supply of hay, a lot of farming tools, etc., all of which were consumed. After the fire had subsided an effort was made to find the body of the boy, which was unsuccessful, and it is probable that the heat was so intense that the body was reduced to ashes.

Fruit.—A large amount of the fruit raised in this vicinity finds its way to the markets over the Sierras. G. N. Milco ships to Salt Lake and Virginia City about a ton and a half of fruit of all kinds, weekly, distributing the amount uniformly through each day of the week. The fruit raised on the rich bottoms along the San Joaquin and Mokelumne rivers is considerably earlier than the majority of that raised at San Jose, and consequently meets with lucrative prices in the San Francisco market. As an example, the blackberries sent early in the season from this city to San Francisco were all gone before the blackberries from San Jose were ready for market. We are told that one man living on the bank of the river, southwest of Stockton, cleared $6,000 this year from a patch of blackberries, not to exceed six or eight acres. Along the valley of the Mokelumne river, from Lockeford to the mountains, the soil is peculiarly well adapted to fruit-growing, and with railroad communication that locality could be made to rival the famed Santa Clara valley in the production of early strawberries and other fruit for the San Francisco market.

SONOMA.

Hops.—*Russian River Flag*, Aug. 24: Early in the morning and late in the evening the avenues leading to the hop yards south of town are filled with "pickers" on their way to or from work. The proprietor of the yards is J. M. Richardson, who, having bought Mr. Grant's crop, will pick this year 20 acres of hops. Last year his yard yielded 1,800 o 1,900 pounds to the acre. The price obtained in New York was $200 per ton. The failure of the European crop gives a prospect for a better price this year. He will employ from 70 to 100 Indians and 20 girls under charge of G. McCoy. The Indian men get 75 cents and the women 50 cents per day. The girls are paid by the pound, and can make from $1 to $1.25 per day. The new dry house is a third larger than the one which was burned down last year.

That Steam Wagon Again.—Sonoma *Democrat*, Aug. 26: O. A. Olmstead, Esq., of this city, is the inventor of certain improvements in a traction wagon. In a conversation with Mr. Olmstead, who by the way, talked very intelligently on the subject, we learned some of the peculiarities of this steam wagon, as it is called. To give in detail the minute workings of this improvement on the traction wagon would require too much space, and would not probably be of general interest. What the invention really is, is an arrangement so as to turn the rolling trucks and driving wheels in the same direction. A rotating harrow is attached to the rear of the wagon, and which, by an ingenious device, can be raised from the ground at will. The wagon, with Mr. Olmstead's improvements, is intended for cultivation, and may be taken up any common grade,



Rescued.

[Written for the RURAL PRESS by VITAL E. BANGS.]

A trav'ler o'er the desert plain,
Parched with a thirst unknown before,
Assayed to reach, but all in vain,
A fount that tempted o'er and o'er.

Helped by the soul-inspiring view,
He summoned conrage in despair,
Tho' well his own true weakness knew,
And that the fountain was too far.

He journeyed but to find a place,
Within the s und of dashing wave,
Where dewy winds might fan his face,
And bring one blessing to his grave.

Too soon his journey had an end,
And silence wrapped a prostrate form,
Unconscious that a weeping frtend
Approached in haste upon the storm.

The fountain could no longer charm,
For all his thoughts were far away;
Dread hardships have no power to harm,
When parts the spirit from its clay.

Swift as a messenger of death
Descends the sweet refreshing rain,
Blown by Nevada's vernal breath
In pity, o'er the burning plain.

A rill is at the stranger's lips,
Turned thither by an unseen hand;
He feels its motion—gently slips,—
Then sits upon the sea of sand.

He lived to praise the mystic power
That could reveal such depth of love,
And bless the sad, yet happy hour,
That turned his thoughts to heaven above.

Centennial Chat—No. 6.

[Written for the PRESS by MARY MOUNTAIN.]

It is such a convenience that chat is not like serious, responsible talk, but can ramble essily from the top of a tower, overlooking the Centennial grounds, to the top of Mt. Washington or the breezy bosom of Lake Champlain.

But I must stay a little longer in machinery hall—long enough to correct that first impression of the whole 14 acres being in motion together. That impreesion was written down haetily in my last letter; but one eoon notices that many a curious machine stands idle while its neighbors whirl and wizz for the beuefit of admiring crowds, who are sure to gather wherever there is motion.

The Improved Washing Machines

Were hard at it, like an everlasting Monday, with plenty of hot suds foaming away over bits of new cloth and slightly soiled towels. Of course we women sniffed scornfully over such a test as that. Towele indeed! Auybody can waeh linen towels just as easy, but let them try such dirty clothes as farmers' wives have to wash through haying and harvesting, or when the burnt piece is being cleared of logs and stumps. That would be a test worth having Yet we were not wholly scornfnl, for a fellow feeling makee us wondrous kind toward washing machines, animate or inanimate, and so many improvements may lead us finally to perfection in that line of work. So far, there is nothing here much better thau we have in California.

Here and there, amidet the clamor and glitter of new machines, we come upon a venerable, battered relic of old time industry, and the vivid contrast ot past and present gives an all-overish feeling, as though some toil-stained ghost stood there in patience silence, more expressive than all our modern eloquence.

The Ephrata Printing Press

Is known to be over 130 yeare old, and it looks too homely and rough for a second glauee until you learn that upon it was printed the Declaration of Iudependence, the Continental money and many an ancient docnment whose last fragment is now precious to the antiquarian.

The knitting machiue has had some credit as a moderu inveution, but there ie a stocking loom that began its work 150 years ago, and hardly half a thought can be given to the geuerations of busy feet kept warm by the work of this queer little loom; for we move on with the crowd to the long line of competing sewing machines, where the beautiful work eeeme the very perfection of daintiness.

The Whitney Machine

Is notable as being offered to Graugers at half the price that others must pay; and as Grangers expect to practice what they preach and pay as well as ask fair profits for honest work, thie little trick of the Whitney company is simply another proot that present prices for sewing machines are shamefnlly exorbitant, and probably will be so long as people tamely submit to extortion.

Yet how can we help being tame in the faee of a monopoly so very rich that all the wrong eeems a sort of gilt-edged glory to dazzle our eyes, while we return thanks for the privilege of living in thie glorious age of sewing machines. If I join the Grange for the sake of getting one at a fair price, I must still pity the poor sewing woman who cannot be a Granger, and so must pay an unjnst rate for the machine by which she gains her living. If the sewing women conld also combine and, under the protection of law, charge three or four prices for their labor, the thing would seem a little more equal.

It is very ungrateful to go to growling right in the midst of this wondertul display, but that is because I admired the new Wardwell machiue very mueh, and so got into a talk with its agent. It seems just the machine I have been waiting for; sews directly from two spools of thread, runs almost without noise and all its parts are simple and strong.

So I asked the price of the plaiuest one, and it was very plain indeed; but the agent said they would sell none less than $65, and seemed a little vexed when I told him I had seen equally nice looking German machines offered at $18 and $20.

Of course he said then that German machines were not reliable, and instantly drew a picture of the poor sewing woman with her crippled machine and nobody to fix it up, and how she would finally be obliged to come to them and pay the $65 or more for "the only reliable machine."

When I told him I had often heard that the first cost ot plain machines is only $13 or $14, he replied in a mournful way that the first cost of a machine does not more than begin to represent its actual expense, etc. So I dropped the subject and went off to look at

The Pumps.

No one can imagine what a host of pumps unless they come to see, and certsinly no one can imagine the noise of them unless they once hear it. In the center of this great exhibit there is an immense tank or pond, and into it the great foreing pumps discharge streams of water at a furious rate, and each side throws at the other with a sharp screech or yell ot defiance, as though the very demon of jealousy possessed them all.

Then you shrink from the sudden, hot blast of the air pumps, the mysterious groan of the steam pumps, the swift, invisible whirr of the smaller fry that look as if they ought to keep still, for you cannot see what makes them dance this endless jig that seeme a mocking challenge to these solemn pyramids. Yes, a long row of pyramids built up of demure little pumps that look as if they are ready, with all their handles, to join

The Great Inferno of Noise and Motion.

At certain hours a wide cataract pours into the pond with a fine effect of coolness, and to this attraction is sometimes added the swimming or floating of a man in the famous Boyton armor. I happened to see this one day and thought the floating was easy and fish-like—yet to go in any desired direction required the use of oars, and looked like very hard work. The genuine Boyton, who crossed the English channel in this armor, was advertised to exhibit and never failed to draw a crowd who were anxious to see and to cheer the champion swimmer.

There was no time to spare for hunting up distinguished people; but another day we were fortunate in seeing Dom Pedro and his empress as they left agricultural hall, the stontly-built lady in a rolling chair and the quiet emperor walking not far behind. I could not see the face of the empress, but a gentleman near by declared that she was the "homeliest" woman he had seen on the grounds, and this ought to satisfy the great majority who have to get along without a royal title. Speaking of Dom Pedro reminds me ot his reception day at our California building. Stepping in there one morning we found a new interest growing up and the gentle finishing touches had just been given to the prettiest, oddest "show" we had seen. In front bf the ladies' sitting room a large platform had been built and covered with handsomely dressed furs, richer and more glossy than a velvet carpet. In the center stood a beautiful

Elk Horn Chair,

As stately and graceful as the animals who had once worn the horns and hoofs so ingeniously combined in this unique masterpiece. The dainty, shining hoofs made the feet of the chair, and every curve and outline of the whole structure seemed the perfection of elegance. Then we had the pleasure of shaking the hand that had killed the elk and polished the horns and fashioned the beautitul chair.

Many Californians will not need to be told that the man is Seth Kinman, long ago famous as a hunter and trapper on the frontier, and as having made three of these wonderful chairs and presented them to three of our Presidents, Buchanan, Lincoln and Johnson.

This last and handsomest chair was made for Dom Pedro, and would have been presented in San Francisco, but did not arrive there until the Emperor had left for the East, so it has been brought across the continent and arrangements have been made with the private secretary that the Emperor will be here at one o'clock to accept the chair. At noon the crowd began to gather in, and soon the house was full and the heat unspeakable.

The proud old hunter was full-rigged in clean, new buckskin, amply fringed, a band of fur around his head, bead-covered moccasins upon his feet, game bag, rifle, and all the equipments as though a stray wolf might any time be found among all these Centennial lambs. His flowing white beard and thick, gray hair falling to his shoulders gave him a venerable appearance, and he would well represent the ideal Leatherstocking of Cooper's stories. Two younger men were dressed in similar style, with rifles at hand ready for the critical moment.

So the time went on and the weary crowd became excited and impatient. When they began to be noisy, old Seth cried out, "Keep still, boys, mabbe the Dom has *soured* on me, but that cheer don't go a begging to no emperor." This raised a laugh and the sweltering crowd waited till the *souring* was a sure thing, and it is to be hoped that the defaulting emperor was not there under the shadow of a slouch hat, listening to the general verdict of his unworthiness to sit in the slighted, beautful arm-chair.

You may rest assured that all our sympathies were for the disappointed old man, who will not easily again be led to put his trust in emperors.

To please the people he made them a little speech, and played a few tunes upon a fiddle made from the skull of a mule that went with him to California in '48. The mule had a taste for music, and would run to listen with his head on his master's shoulder while the violin was played. So the master thought there must be music in that skull—hence the curious fiddle and a bow made from a rib of the mule with strings from the hairs of his tail.

When the people were gone, he told us that he had been offered $1,500 in San Francisco for his chair, but would not give up his original purpose; and now, after so much expense and trouble—"Wal, gentleman, you all see that I have been sold—and none of us likes to be fooled."

We suggested that possibly some mistake had been made and he might yet have a chance to present it.

"I reckon, sir, that they 'll hev to make new arrangements pretty Dom sudden, or I'll emigrate outer here so quick 'twill make yer head swim."

Some readers may like to hear about the California building, where this disappointing ceremony took place. There is not much to say, except to praise the architect for the airiness of the handsome hall and the broad panels of California wood that decorate the columns. Probably the walls are intended for pictures, photographs, maps, etc., that have not yet arrived.

Christian Writers on Chinese History.

[Written for the PRESS by MRS. GEORGIE D. W.]

The first eminent writer on Chinese history that I will mention is Dr. Isaac Barrow, an English theologian, eminent both as a mathematician and divine, also as a traveler and writer on foreign countries. His authority on points of fact I consider the very first. But before I proceed allow me to refer my "questioner" to my authority in regard to the standing of the writers and historians whom I wish to mention. I refer to any trustworthy biographical dictionary or encyclopedia on English literature or other good books of reference. But best of all are the works of the authors themselves, which are now before me.

With all due defereuce to Mr. Gillet's opinions on the remote Chinese annals, I would respectfully call his attention to the facts that I now present, which are simply to define my position and to eustain the assertions I have made that "most all Christian writers agree that the remote Chinese annals are fabulous and untrue, and past all intelligent belief."

I am very eure that I never questioned that Chinese records did not exist or had not been preserved sacredly and correctly handed down from times extending back into ages—millions of years if you will. But the point I contest is: Shall we believe them or not? Do you believe them? Are the Chinese, as a nation, so much more enlightened and civilized than ours that we should give credenee to their hobgoblin annals, filled with witchcraft, genii and vampiree, and yet, at the same time, look with uncertain and questioning eyee on our own? But I forbear; there is too much that might be said on the subject for the little space.

But I will now give a few quotations from my different authors to sustain my points. Dr. Isaac Barrow says: "Although the Chinese may be admitted to be among the first nations in the world, they do not appear to have made any progress in the arte and learning, even as the Chaldeans and Assyrians; that it is only from the time of Confucius that they have seemed to advance in civilization; that previous to that time their country was divided into a number of petty kingdoms under separate rulers, with recitals of whose terrible wars and struggles for superiority the Chinese annals are chiefly filled." Again he says: "The Chineae system by which their chronology ie regulated (if system it can be called) resembles so closely that which remains of the Hindoos', that both must have been derived from the same source, or perhaps have derived the remaine of this science trom some third nation more ancient than either, for it appears to be the remains rather than the elements of the science."

In Chambers' Cyclopedia ot English Literature, quoting the different Christian writers on Chinese history the writer eays: "From the grossly fabulous and exaggerated nature of the Chinese records an air of doubt has been thrown over all their early anuals. Pretending, as they do, to trace the foundation of their empire uot only as far back as the time of the deluge (of which, it is well worthy of remark, their traditions bear attestation), but even to a period long antecedent to it, it can scarcely be woudered at that a dispositiou should prevail to reject the whole as purely fictitious. There may be, however, as much error in too great a disbelief as in too ready acceptauce."

The early annals of every nation are mingled up with much that is absurd and obscure by the suggestions of ignorance and superstition. Nor are those Chinese historians, who trace their origin back through 90,000,000 of years before the Christian era, a whit more deserving of ridienle thsu the Romans themselves, who, with all their enlightenment, believed that the gods of their barbarous mythology took an immediate and active share in all sublunary matters. The only substantial ground for wonder in regard to China is that some modern writers, some even of our own country, should have given in their adhesion to the fabulous records of the native historian, and pretend to have established beyond doubt that the Chinese empire was founded more than 2,000 years before the Christian era.

Dr. Barrow says: "It is curious to observe with what persistency this ostentatious show of a love of learning is kept up by a people who are still so ignorant as to claim that the firmament is a body encircling the earth, the latter of which is a solid square, and around which the sun revolves, as well as the moon and stars, fixtures accordingly. Their geography is on a par with their astronomy, as may well be supposed from the fact that they imagine China to be the center of the globe, as so stoutly adhered to by Emperor Kam Hi, etc., notwithstanding their great professions of the sciences. The fact is, their pretended knowledge of letters, 'literati' and ostentstions patronage of learning by the government is a mere state trick for the purpose of exciting the veneration of other countries."

The following assertion, by Sir Wm. Jones, is very good: "The Chinese letters, if we may call them such, are merely the symbols of ideas. Their philosophy is in so rude a state as to hardly deserve the appellation. They have no ancient monuments from which the remote history they claim may be traced, even by a plausible conjecture. Their sciences are wholly exotic; their mechanical arts have nothing in them characteristic of ancient peculiarities, etc., nothing which any other set of men in a country so favored might not have surpassed in a high degree of progress."

Dr. Gregory, of Edinburgh, Scotland, says: "Of natural philosophy, chemistry and medicine the Chinese know literally nothing," etc. After a long article on the Chinese, he closes with the following: "The Emperor of China could not command in all his kingdom such medical sid as one of our ordinarily smart boys of 16, who has been apprenticed for one year to a well employed Edinburgh surgeon, would be able to afford."

"A General Description of the Chinese Empire and its Inhabitants," by John Francia Davis, is a book, I believe, accepted by most all as good authority. He says: "It may be almost said that the Chinese have no history, for China has had so few revolutions or political changes to record that her annals rise but in a small degree above the limits of chronology. The antiquity which the Chinese may claim for their origin ie now, even by the enlightened of their own country, considered fabulous and untrue," etc.

Again Dr. Davie says: "The Chinese have no authenticated record older than the compilation of Confucius' works, 550 years B. C."

But I must desist; there are many more I would like to bring out, but space forbids. I can but simply refer to Dr. Isaac Barrow, Sir Wm. Jones, Dr. Gregory, of Edinburgh, M. Gutzlaff, M. de Guignes, Mr. Malcome, Mr. Davis and other more modern Christian writers, who agree that: "The remote Chinese annals are fabulous, frivolous and untrue, and that no authenticated annals exist further back than the time of Confucius, 550 years B. C."

[We give our correspondent this opportunity to reply to Mr. Gillet's criticism. We trust the matter is now sufficiently discussed.—EDS. PRESS.]

Instinct.

Professor Hammond, of New York, relates many instances of instinct in animals: If the entire brain be removed from a frog, the animal will continue to perform those functions which are immediately connected with the maintenance of life. If the web between the toes is pinched, the limb is immediately withdrawn. If the shoulder be scratched with a needle, the hind foot of the same side is raised to remove the instrument. If the animal is held up by one leg, it struggles. If it is placed on its back, a position to which frogs object, it at once turns over on its belly. If one foot is held firmly with a pair of forceps, the frog endeavors to draw it away. If unsuccessful, it places the other foot against the instrument and pushes convulsively to remove it. Not succeeding it writhes the whole body from side, and always in a forward direction. All these, and even more complicated motions, are performed by the decapitated alligator. I have frequently seen the headless body of the rattlesnake coil itself into a threatening attitude, and, when irritated, strike its bleeding trunk against the offending body. On one occasion a teamster on the Western plains had decapitated one of these reptiles with his whip, and, when bending down to examine it more carefully, he was struck full in the forehead. So powerful was the shock to his nervous system that he fainted, and remained unconscious for three minutes. A natural historian relates that a viper whose head had been cut off moved determinedly toward its hole in the wall.

Who Would Dwell in a Palace?

We read in an exchange that Queen Victoria is distinguished among sovereigns for the quiet and regular life which she leads. She rises at nine in the morning and breakfasts in her apartments. After a walk on the castle terrace, her majesty signs documents which are placed ready for her. This duty occupies several hours, and is followed by a ride or walk with the Princess Beatrice and Prince Leopold. Returning, some one of the ladies reads to her until dinner. The dinner is described as rather a stiff affair: "The gue ts assemble, and dinner is generally announced before her majesty enters the room. The minister is waiting, and the people invited sit at the table, and there is a pause. Then the queen enters, everybody rises, her majesty makes a bow, and sits down, and then the guests resnme their seats. The footmen serve the dishes in solemn silence, and not a word is spoken. Her majesty usually makes two or three remarks during the dinner, bnt no one speaks unless the queen speaks to him, and the company is more like a Quakers' meeting than anything else. Before the dessert her majesty generally rises, bows, and leaves the room, but the guests—ladies and all—remain. The Princess Beatrice generally leaves with her mother. Then the conversation becomes more general after her majesty has left, and at the end of the dinner Lady Biddulpb, or Miss Cadogan, or somebody rises, the ladies leave the room, the gentlemen remaining standing. Then the gentlemen nsually go to the smoking or billiard room, and the ladies to the drawing room. Sometimes the queen will go into the drawing room in the course of the evening, but not very often. And the gentlemen are all in court dress, which is usually very tightly fitting, so they can't enjoy their dinner much.

How a Bird Flies.

The most important fact about a bird is a faculty in which it differs from any other creature except the bat and insects,—its power of flying. For this pnrpose, the bird's arm ends in only one long slender finger, instead of a full hand. To this are attached the quills and small feathers (coverts) on the upper side, which make up the wing. Observe how light all this is: in the first place, the bones are hollow, then the shafts of the feathers are hollow, and, finally, the feathers themselves are made of the most delicate filaments, interlocking and clinging to one another with little grasping hooks of microscopic fineness. Well, how does a bird fly? It seems simple enough to describe, and yet it is a problem that the wisest in such matters have not yet worked out to everybody's satisfaction. This explanation, by the Duke of Argyle, appears to me to be the best: An open wing forms a hollow on its under side like an inverted saucer; when the wing is forced down, the upward pressure of the air caught under this concavity lifts the bird up, much as you hoist yourself up between the parallel bars in a gymnasium. But he could never in this way get ahead, and the hardest question is still to be answered. Now, the front edge of the wing, formed of the bones and muscles of the fore-arm, is rigid and unyielding, while the hinder margin is merely the soft flexible ends of feathers; so when the wing is forced down, the air nnder it, finding this margin yielding the easier, would rush ont here, and, in so doing, would bend up the ends of the quills, pushing them forward out of the way, which of course would tend to shove the bird ahead. This process, quickly repeated, results in the phenomenon of flight.—*Scribner for September.*

Character.—Upon this subject Gail Hamilton writes: When the good ship *Schiller* was steered by a faithless Captain upon the fatal rocks, and went down slowly to her doom, a group of six people sat in the pavilion, holding each other's hands, calm, praying, waiting death. One was a girl, young, petted, surrounded with luxury, having "fed on the roses and lain in the lilies of life," and one was a scholar trained in many tongues, one a woman of science and skill, with a purpose and a career, and one was a young daughter, with life all before her, and one was a husband, with a consecrated past. And there sat they, in the midst of the night, going down slowly into the shrouding waters, calm, prayerfully, conquering death. And as the water rose around them they rose, still holding each other's hands. And so, weak and helpless, they were engulfed in the awful depths, but, sublimity triumphant, they passed out into the unseen universe. It is character that prevails. What odds whether it is medicine or costume or color, a man's unencumbering garb or a woman's multitudinous drapery that has occnpied the mind, if so be it can encounter the vicissitudes of life with fortitude, and face death with tranquility.

Haste is Not Always Speed.—No two things differ more than hurry and dispatch. Hurry is the sign of a weak mind; dispatch of a strong one. A weak man in office, like a squirrel in a cage, is laboring perpetually, but to no purpose, and in constant motion without getting out of the spot; like a turnstile, he is in everybody's way, but stops nobody; he talks a great deal, bnt says very little; looks into everything, but sees into nothing; has a hundred irons in the fire, but few of them are hot; and with those few that are, he only burns his fingers.—*Industrial Monthly.*



"WORDS AND THEIR USES"

By a Mystified Quaker.

Respecten Wife: From these few lines my whereabouts thee'll learn—
Moreover, I impart to thee my serious concern:
Tne language of this people is a riddle unto me,
And words, with them, are figments of a reckless mockery!

For instance: As I left the cars, an imp with smutty face,
Said "Shine?" "Nay, I'll not shine," I said, "except with inward grace!"
"Is 'inward grace' a liquid or a paste?" asked this young Turk;
"Hi Daddy! What is 'inward grace?' How does the old thing work?"

"Friend," said I to a Jehu, whose breath suggested gin,
"Can thee convey me straightway to a reputable inn?"
His answer's gross irrelevance I shall not soon forget—
Instead of simply yea or nay, he gruffly said "You bet!"

"Nay, nay, I shall not bet," said I, "for that would be a sin—
Why don't thee answer plainly: Can thee take me to an inn?
The vehicle is doubtless meant to carry folks about in—
Then why prevaricate?" Said he, perversely, "Now yor shoutin'!"

"Nay, verily, I shouted not!" quoth I, "my speech is mild;
But thine—I grieve to say it—with falsehood is defiled.
Thee ought to be admonished to rid thy heart of guile."
"See here! my lively moke," said he, "you sling on too much style!"

"I've had these plain, drab garments twenty years and more," said I,
"And when thee says I 'sling on style,' thee tells a willful lie!"
At that he pranced around as if "a bee were in his bonnet,"
And, with hostile demonstration, inquired if I was "on it!"

"On what? Till thee explain thyself, I cannot tell," I said.
He swore that something was "too thin;" moreover it was "played!"
But all his jargon was surpassed, in wild absurdity,
By threats, profanely emphasized, "to put a head on" me!

"No son of Belial," said I, "that miracle can do!"
Whereat he fell upon me with blows and curses, too,
But failed to work that miracle—if such was his design—
Instead of putting on a head, he strove to smite off mine!

Thee knows I cultivate the peaceful habit of our sect,
But this man's conduct wrought on me a singular effect;
For when he slapped my broad-brim off, and asked, "How's that for high?"
It roused the Adam in me, and I smote him hip and thigh!

The throng then gave a specimen of calumny broke loose,
And said I'd "snatched him bald-headed," and likewise "cooked his goose;"
Although, I solemnly affirm, I did not pull his hair.
Nor did I cook his poultry—for he had no poultry there!

They called me "Bully boy!" although I've seen nigh three-score year;
They said that I was "lightning" when I "got up on my ear!"
And when I asked if lightning climbed its ear, or dressed in drab,
"You know how 'tis yourself!" said one inconsequential blab!

Thee can conceive that, by this time, I was somewhat perplexed;
Yea, the placid spirit in me has seldom been so vexed;
I tarried there no longer, for plain-spoken men—like me—
With such perverters of our tongue can have no unity.

—*Frank Clive, in the Buffalo Courier.*

Young Folks' Column.

A Horse That Knew it Was Sunday.

I want to tell you a true horse story. The horse was raised on Long Island by my father, who used her for many years—on week days for farm work, and on Sundays to take the family to meeting. She was not a beauty, but she was strong and trusty. She always went by the name of "Miss Finley." When the faithful creature had grown old in long service, father took her, one summer morning, across the bay to Robin's island, that lay over half a mile off, and left her there to rest, and to crop the good grass at will. In other words, she was placed on the "retired veteran list," with all the honors. This was on a Monday. Well, all that week the old mare stayed there and enjoyed herself to her heart's content; but when Sunday came, and the first ringing of the church bell began, the knowing animal pricked up her ears and listened. Then she trotted along the sand-bar as far as it went, and, without a moment's hesitation plunged into the water, swam over to the main land, and went straight to the stable. She knew it was Sunday, and that she should be needed to take the family to meeting! Dear old Miss Finley! But the hardest of it was that father, not thinking of ever using her again, had already purchased a new horse. Miss Finley found her own empty stall. But something was wrong. All was silent. There was no familiar voice, no familiar touch, and the harness did not fall clanking about her as nsual. Could it be that the folks were not going to meeting, after all? No one knows what Miss Finley thought, nor how she felt, when, after a while, the new horse came trotting briskly home with the family. But you may believe she was patted and praised when we found her. We gave her water; called her a good old girl; hugged her neck; pulled handfuls of fresh clover for her; gave her lumps of sugar, and did all we could to do her honor. One and all agreed that nothing was too good for the faithful old horse who knew it was Sunday.—*St. Nicholas.*

Home-Made Beauty.—The more they use their muscles, the stronger and consequently more beautiful my girls and boys will grow. They are something like trees and plants. The more these are stirred by the wind the more rapidly the sap flows through their trunks and branches, and the stronger and more beautiful they become. Boys and girls have this advantage; they can exercise when they wish, and need never wait for the wind to come and blow them.

Good Health.

Dangers of Breathing by the Mouth.

Dr. Guye, in the London *Medical Record*, directs attention to the evils of breathing by the mouth. To appreciate these it must be remembered that the functions of the nose in respiration are threefold.

1. The olfactory sense secures it against the entrance of impure air.

2. The moisture of the nasal passages gives a certain degree of aqueous saturation to the inspired air, the contact of which is thus rendered less irritating to the mucous membrane of the throat and larynx.

2. The inequalities of the organ retain solid particles suspended in the air, which is proved by the quantity of dust sometimes found accumulated in the nostrils. These functions are all lost in breathing by the mouth. Further, the contact of dry air soon produces circulatory troubles in the pharyngeal region, and even an habitual catarrh, susceptible of easy transmission by continuity to the eustacian tube and cavity of the tympanum. Granular adenoid pharyngitis often has this origin. Niemeyer believed that attacks of pseudo-croup in children have their origin in dryness of the glottis produced by oral respiration. To enable the patient to breathe through the nose we must restore the nose to its proper condition, and then in children stop the mouth by an impervious respirator. Many cases of catarrhal deafness were cured in this way alone.

Remedy for Lockjaw.—Dr. John Imray reports most favorably on the effects of the simultaneous use of opium and chloral hydrate in cases of tetanus, both idiopathic and traumatic. In the tropics this disease exhibits a frequency and a violence unknown in more temperate regions, and with the sole exception of hydrophobia, there is perhaps none so unsatisfactory as regards treatment, or so painful to witness (and usually so fatal) as tetanus. Hence the doctor's mode of treatment promises to be of great value. Three cases were treated successfully by the new method—namely, keeping the patients almost continually under the combined effects of chloral hydrate and opium tincture until all tendency to the recurrence of tetanic spasms had disappeared. As it generally happens that all power of digestion is lost in this disease, it becomes necessary to administer both the medicine and food by means of an enema.

Domestic Economy.

Yeast and Bread.

I have seen some inqniry about the best yeast. Every housekeeper thinks her own recipe the best, and I am not an exception to the general rule. I have never seen mine in print, and I am so conceited that I like my own bread best of all—so am tempted to give my recipe for trial:

Two quarts of warm water, one pint of hop water (made by boiling one teacupfnl of hops in a pint of water and straining off clean), two and a half cupfuls of mashed boiled potatoes, one cupful of sugar, two tablespoonfuls of flour, and one half cupful of salt. Turn the hop water on the potatoes and flonr while it is scalding hot; then add the warm water, sugar and salt; when milk-warm, add four tablespoonfuls of yeast; mix it in a large pan or bucket; let it rise twelve hours, then put it into a jug or large bottle, and set it where it will be cool; shake well before using. This yeast will keep perfectly sweet for months. When you want to make your bread, sift two quarts of flour into your bread pan, use one teacnpful of yeast, and two quarts of warm milk; stir it well together, cover with a cloth, and in cool weather set it in a warm place. I set my sponge about 8 o'clock in the evening, and by morning it is ready to knead. I add what flour is needful to make it knead easy, and set where it will keep warm. In four hours knead again very thoroughly; the more you work it, the nicer bread you will have. Put into your baking dishes so as to fill them a trifle over half full; set in a warm place to rise; do not let the air strike on the dishes; when the dough rises to fill the dishes, bake in a quick oven, as the bread is nicer to not stand and swell in the oven. I always save enough dough from the loaves to make a nice plateful of rolls. The way I make them is this: I cut the dough into pieces about the size of a hen's egg. I then butter my hands and roll each piece into a solid ball, and place it on a well-buttered tin, placing them close together; when the tin is filled I set them to rise, like the bread. If I wish them for tea, I keep them in a cool place. Bake quickly, and if you ever desire nnleavened biscuits again for a luxury, I am mistaken. These rolls are delicious, either hot or cold; and I know of no lighter, sweeter, whiter bread than that which is made after this rule. There is only one fault with it—it does not spend well in a family; we never have any stale bread on hand. For a small family, half of the quantity of yeast, flour and milk can be used, and vice versa for a large number. Our family of eight uses this rule about three times a week, but we all think bread is the staff of life, especially if it is good.—*Farmer's Wife, in Country Gentleman.*

Beef a la Mode.

Procure a juicy and tender ronnd, or part of a round of fresh beef, according to size of family. Cut an onion in two, and with each half rub the beef thoroughly on both sides, after removing the marrow bone; make a stuffing of bread crumbs, a little melted bntter, salt and pepper, a pinch or two of thyme, sweet marjoram, and summer savory pnlverized and mixed together, a small half teaspoonful of ground cloves, and two or three tablespoonfuls of water, just enough to moisten but not to pack the bread crumbs.

Have ready some strips of good, solid salt pork, about half an inch thick; score the beef by plunging a knife clear through, and cntting both ways; score as quickly as possible, and fill the places alternately with a strip of the pork and the bread crumbs. Reserve three or four tablespoonfuls of the crumbs for the gravy. Next, bind the beef into round shape, by passing a twine cord several times round and tying tightly, taking up and fastening with a skewer any loose or irregular point; spread slices of pork over the top, and place the beef upon a wire rack that will set upon a dripping pan, and allow the juice of the meat to fall through; put about a half pint of water into the pan, and place all in the oven; have boiling about a half dozen onions, and with the water baste the beef very frequently, letting the water run down into the pan.

When done, place the gravy pan upon the range; add more water from the onions (if much gravy is desired), the reserved crnmbs, another pinch or two of the mixed herbs, ditto ground cloves, about two tablespoonfuls of vinegar, and browned flour enough to impart a rich, dark brown color; blend all well together, boil for a minute or two, and serve with the meat. A few spoonfuls poured over the meat when dished is an improvement. Serve the boiled onions either in a dish by themselves, or upon the meat dish. The marrow from the bone, chopped fine and added to the stuffing of crumbs, enriches it.—*N. Y. Times.*

To Fasten Labels to Tin Cans.—Put a teaspoonful of brown sugar into a quart of paste and it will fasten labels as securely to tin cans as to wood. Housekeepers may save themselves much annoyance in the loss of labels from their fruit cans when putting up their own fruit, by remembering this.

Sweet Potato Pie.—Boil and sift through a colander, nice, ripe, sweet potatoes, add boiling milk, and make the same as pumpkin pie.

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We wish to thank those subscribers who send in their renewals to the PRESS promptly as regularly as the year comes round. It saves us much expense in commissions for collections and renewals. May we not request more of our good patrons to do so!

NO SUBSCRIPTIONS will be received at less than four dollars a year, except in clubs of five or more, or through club or Grange agents who have sent five or more subscriptions during the year.

Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, September 2, 1876.

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The Week.

Wheat risea a penny in the English markets. The powers are preparing to order the Turks and Servians to take breath. Wool still finds an active market at the East. The campaign combat thickens. A carload of fine fruit goes to represent us at the Centennial. Many sections in the East are parched with the drouth, and the smoke from burning forests fills the air. These are some of the notes which the week brings from afar.

On this coast the dry season progresses. The country roads are paved with dust and the hillsides yearn for the coming of the rain. Here and there alfalfa patches, orchards and vineyards shine like oases. The harvest approaches its close. Bags of grain lie thick upon the platforms of the warehouses, like bashful boys at a country donation waiting for some one to push them in. Platform cars and river flat boats, heavy with the swelling sacks, look like sand bag fortifications. The dairy cows, approaching their vacation, are counting the rolls which they have sent to the city, and would give them all for a roll upon green grass. The heavy work of the vintage calls the vignerons from their idling, and soon seas of wine will hide away in the gloom of the cellars and the sun will shine upon acres of raisins.

The Hop Harvest.

The hop harvest is in progress in several counties in this State. Already the market has received several small early lots and the season of active sale will soon begin. The prospect is fair for a remunerative price. The yield in this State will, according to all present indications, be large. The export trade in the hops of the Pacific coast has, however, become established, and is increasing so rapidly that there seems little doubt but that this year an increased surplus will find avenues to profitable consumption. The summaries of the export trade in hops for the first half of this year show that upwards of 400 tons have been exported against 26 tons for the first six months of 1875. Although these figures are small compared with the magnificent digits of our wheat exports, they still show a quality of growth and expansion which is gratifying. During the year as usual the largest part of the exports has been by rail to the East, but of late we have been shipping chiefly to the islands of the southwest. This trade is peculiarly valuable, for it is in a direction in which our hop growers have an advantage over all the other hop regions of the country.

The prospect toward the East for our surplus must be counted unusually bright this year. The yield of the central New York region will not be so excessive as last year, and, as we have mentioned before, the continental demand is expected to be for considerable amounts, because of a short crop. Of course it is early to prognosticate as to prices which will rule for the season; at present it will be enough to note that the outlook is unclouded.

While the pickers are busy in the yards and "hop sack" and "hop pole" are the slogans of the army, fighting with nimble fingers, it will be interesting to read the conclusions concerning picking and curing which are laid down by one of the foremost Eastern growers and compare them with experience in this State. During the last year the hop growers of central New York formed a union or association for the dissemination of intelligence and for other purposes. At the last meeting, J. E. Morrow, an enterprising grower of Oneida county, made an address from which we shall draw the following points:

"If you pick your hop too green, you not only have a weak hop to sell, but you weaken your hills for another crop. Whatever you do, use caution and pick your hops clean. In picking hops never allow over one box of hops to be put in a sack. In making sacks never take less than three yards of burlaps for a sack; never allow any one to sit on sacks of hops if you are obliged to let hops remain in sacks over three or four hours before placing on the kiln; untie your bags and that will let the bad odor escape that accumulates from the heat and vermin.

"It is not well to overload your kiln in drying. I would recommend not to start with too hot a fire if your hops are very green or very rusty. Commence burning brimstone as soon as the heat strikes the hops; close your draft—but not tight—as there is more danger of scorching the hops. I have dried hops for the last 22 years, not missing one fall, and my experience in this: In drying in different kilns I find it is not advisable to have a very large cowl. Some years ago I had a common roof kiln about one-third pitch. The dry house was 12x18. The cowl was rather small; but I found no trouble in getting a good sample. About nine years ago I built a high draft kiln, and a cowl in proportion. I find, in experimenting, it is necessary to have a circle door in the cowl and a small cord and pulley attached to the door; while bleaching have it closed; have the rope near the door of your kiln; when you have bleached them enough, raise your door in the cowl and also the drafts below. By doing this it will let the air pass through the hops, and it will leave the hops perfectly sweet. If you have a kiln of hops that is very ripe and red after drying, and if you find that there were not green hops enough among them to steam them enough to make a good sample, do not think that it is all you can do. That is not so; shove the hops to one corner of your dry room. If there are 30 to 40 boxes of hops throw on four or five pails of water. Mix them thoroughly; spread them on the kiln, start a slow fire; start your brimstone burning as soon as you start your fire; if your stove is not hot enough, place some live coals in the brimstone; if you do this you will have a sample of hops that will do to go with your first picking; be sure to close your trap door while bleaching.

"If there are any hop growers building or repairing their hop houses, I would recommend the late style of ventilator. It is far ahead of the old-fashioned cowl or the hood. Perhaps all of you are not familiar with this ventilator. It is a box with a roof placed over it. This ventilator is large enough to let steam escape; but the aperture in the hood or the old-fashioned cowl is too large, the draft is so strong that the brimstone passes through the hops, doing but little good. But by having your cowls properly fixed, you not only save brimstone, but you can make a much better sample of hops. It is necessary to confine the steam while bleaching; never wait until your hops are husky on the surface before turning. If there are green hops on the surface when you turn them, they will do no harm if you burn brimstone as soon as you turn them. By doing this those that you have already bleached will retain their color. In shaving off hops never put hot hops with cold ones. By doing this it will give them bad flavor. Do not press your hops too soon, as they are more liable to heat."

The Bag Trade.

Last week we noticed in our market review that a new bag ring had arisen, Phœnix like, from the ashes of the old one. Six of our city bag firms formed a "pool" of their stock, and agreed to stand together in demanding an advanced price. A "pool" is generally an evil combination, whether it be a gambling attachment to a horse race or a combination of railroads against shippers of produce. The bag pool cannot be regarded as of very different character, for it was an agreement among dealers to shut off the healthful competition of trade and force purchasers to pay artificial prices. It was boasted a week ago that this bag pool held at least three-fourths of the stock now on hand in this city and had purchased all available stocks to arrive during the next two months. It appears from the computations made by the *Journal of Commerce*, of this city, that there are ample supplies engaged to arrive just after the time claimed by the "pool," and if this be true the present combination can do but little harm comparatively. We quote from the *Journal of Commerce* the following statistical review of the situation:

It is strange that with all the circumstances before them to prove the contrary, some people will still persist in thinking that the supply of grain bags will fall short of the demand. A week ago the market fell to 11½ cents, where a couple of weeks previously it had been quoted as high as 13½ cents, a fall of 15 per cent. nearly; and in order to prevent further depreciation, a concentration of stocks was effected, which resulted in putting the market up one cent—thus recovering so much lost ground. And it would have been possible to put the price much higher, but for the fact that 10,000,000 bags have just been purchased in Calcutta, which could reach San Francisco in a couple of months by steamer, although they are said to have been purchased for next year. And notwithstanding that arrivals up to date, with what was carried over from last year, and with our local make, etc., have been fully equal to needs, from 7,000,000 to 10,000,000 could well be carried over to the next year, with the prospect that increased acreage and a fair crop would call for a still larger supply than that needed this year.

The present statistical position of the market may be given as follows:

DEMAND.

	Bags.
Wheat	20,600,000
Barley	2,000,000
Oats	500,000
Oregon	2,500,000
Total	25,600,000

SUPPLY.

Stock on hand Jan 1st, 1876	7,500,000
Imports since	14,528,285
Oakland factory make	3,000,000
Second-hand returned	1,500,000
Total	26,528,285

TOTALS.

Demand	25,600,000
Supply	26,528,285
Surplus	928,285

Then there are on the way from Great Britain the following supplies:

Vessel.	Bags.	Burlaps.
Ellen Munroe	190,000	....
Bolivia	....	68,632
Candidate	9,000	103,048
Moselle	186,600	....
Oheron	18,237	....
Borrowdale	5,000	....
Denbighshire	20,400	16,200
Charles Colesworth	....	44,850
Total	429,237	232,730
Bags		429,237
Burlaps		232,730
Total		661,967
On the way by steamer, as per manifest, to		50,000
Total		711,967
On the way from Great Britain		711,967
Surplus (present)		928,285
Surplus		1,640,252

This on the one hand is sufficient to meet all underestimates, even if there were not on hand with millers a large lot of available second hand bags; while on the other hand a much larger surplus is possible, as it is not improbable that the wheat crop has been overestimated as to quantity. In any event, however, the 10,000,000 purchased in Calcutta remove all danger of a scarcity, and no possible combination can keep the market up for more than a couple of months at farthest.

THE chances of the Sultan's recovery diminish daily. The ministers are seriously considering the question of an approaching change in the succession. The eventual successor, Abdul Hamed, has put himself indirectly in communication with the powers, notably Austria, for the purpose of preparing the way for a general understanding on the pending questions.

QUERIES AND REPLIES.

Castor Beans.

EDITORS PRESS:—I enclose a part of a stem from a castor oil bean plant. Many of them, instead of forming beans, form these little balls and soon drop off. Is it a blight? If so, what is the cause of it? By the way, I do not see castor beans mentioned in your market reports. Are there none on the market? What is considered a fair ordinary yield per acre of them?—O. B. CALDWELL, Bakersfield.

We cannot tell what causes the appearance which our querist notes on his bean plants. We have seen nothing of the kind before. It has the appearance of a blight, but from what cause we do not know. Have any of our readers had experience in this matter? If so, let us hear from them.

Castor beans have not been quoted in our market reports for the reason that so far as we know there is but one purchaser, and the price once fixed remains fixed for the season. The Pacific oil and lead works of this city are now contracting for the crop at three cents per pound for clean beans in good shipping order. They receive a great many beans uncleaned, some sacks containing not only the husks but considerable quantities of adobe. They have been in the habit of cleaning these lots and paying for them according to the weight of the clean beans. They fix their own prices and intimate that next year's prices are liable to be affected by the Hawaiian treaty, which removes the duty on castor oil.

Very much depends upon the producer delivering his beans in first-class order. The following advice on cleaning, which is taken from a pamphlet on castor beans, may be of use and interest: "Get a No. 3 or 4 fanning mill, zinc screen with holes for the beans to go through. A hand harrow and a scoop shovel are necessary. Put down a platform about 16 feet long, of the width of the mill, and fasten the latter on it; also put a platform at the side of the mill to feed from. Put No. 3 screws at the top; next below the zinc fasten on to No. 1, then No. 4. As soon as the beans are popped, and not before, remove the husks with a hay rake; follow with a fine iron rake, and finish by passing a broom lightly over the surface of the beans. By observing the above particulars, only one fanning generally is necessary. Beans should be fanned and sacked as soon as possible. Exposure to the sun for only a few days after they are popped causes a great loss of weight, 10 per cent. at least, and this loss comes out of the producer. Popping grounds should be large enough. One acre of ground for 50 acres of growing beans is small. The layer of spikes should not be so thick as to require turning."

The yield of beans to the acre is subject to a very wide range; we have seen it placed as low as 15 and as high as 60 bushels. We shall be pleased to receive from our readers any further information they may have on Mr. Caldwell's queries.

Cabbage Lice.

EDITORS PRESS:—Have noticed several inquiries and answers in the RURAL PRESS in relation to destroying lice on cabbage, but have seen nothing so simple, cheap and effective as a remedy I have used the last two years, which is as follows: Take the common standard washing powders, for sale at every grocery store; take two or three handfuls and dissolve in a bucket about two-thirds full of water, and then take a wisp of straw or grass, or anything that will sprinkle, and apply to the cabbage. It is sure death to the lice and does not hurt the cabbage. By watching and applying the remedy as soon as the lice appear, one will have little trouble from these pests. One dollar's worth of powder will keep several thousand head of plants free from lice. Only apply it to those plants that have lice on them, and apply it as often as any lice make their appearance, for they increase with wonderful rapidity. I give this to reciprocate the many favors I have received in your give and take columns, to which all should contribute.—E. H. CHENY, Bodega, Cal.

Good. We hope no reader will let pass an opportunity to send us useful information on any point which comes up in our columns.

Hard Soap.

EDITORS PRESS:—I would like to know a good recipe for making hard soap.—OLD SUBSCRIBER, Milpitas, Cal.

Answers are requested from readers.

XANTHATE OF POTASH.—European experiments with phylloxera cures continue. The latest points claimed are as follows: The efficacy of the sulphocarbonate of potash against the phylloxera, or grapevine-louse, is undoubtedly due solely to the bisulphide of carbon developed from it, in contact with the soil, as shown by Dumas; but it seems also certain that, in many cases, contrary to the opinion held by him, the sulphureted hydrogen developed at the same time exerts a decidedly injurious effect upon the vine. Experiments in the laboratory of the Government agricultural school at Vienna have, however, led to the discovery that xanthate of potash, in contact with moist soil, will develop the effective bisulphide without the sulphureted hydrogen; and since it can be prepared with much less difficulty than the sulphocarbonate, it can be furnished in a pure state more cheaply. It was also found that the development of the bisulphide is hastened by the addition of superphosphate to the soil. It is therefore recommended to apply a dry mixture of xanthate, superphosphate and earth, by strewing it upon the soil, or, still better, by working it in, and the rain will then cause decomposition to begin, and the evolution of bisulphide will continue for days, according to the quantity of xanthate present, while the vines will at the same time be furnished with potash and phosphoric acid.

The Grape Crop.

The great grape counties of Napa and Sonoma are now the scene of unusual activity. The vineyardists do not take kindly to the idea of letting their product go for naught, and there is a spirit of busy planning and examining and enterprise which will give them all the advantages which can possibly be found in the situation. Meetings are still held from week to week. A thorough canvas is being made in some parts to determine what amount of grapes must be provided for. Co-operative wineries are urged at Napa and Healdsburg.

At a meeting held in St. Helena there was a determination manifested to secure the picking of the grapes at less than the usual price, and it is expected that contracts can be made with Chinese pickers at 75 cents per day. At this meeting the amount of grapes in the valley above Bale slough was placed at 4,500 to 5,000 tons, which is 1,000 to 1,500 tons above the cellarage capacity of the locality. A good part of this excess will doubtless be dried and thus but little will remain unprovided for.

A ray of light was thrown upon the situation at this meeting by the announcement that a San Francisco dealer was coming up to look at the grapes and might buy after all. The prevailing talk for price is $20 per ton for Riesling and Zinfindel, and $18 per ton for other foreign grapes. Mountain grapes are rated $2 higher than valley. Mission grapes are out of the list.

It cannot be doubted that the vigneron who turns out an article of superior quality has all the advantage in a time of depression. There is very much California wine placed upon the market which is altogether bad, and this has a tendency to restrict consumption. There are many wholesome lessons in a conversation which the Napa *Reporter* had with Mr. Van Bever on the outlook in wine. He found Mr. Van Bever far from being depressed. He has now on hand about 80,000 gallons of wine of last year's vintage, which he is working off. Prices, he admits, are *very* low, but still he finds sales, and if the quality of the wine is kept up to a good standard it will finally work its way into public favor, both here and abroad, and we will then have as much business as we want. He especially deprecates, as do all our first-class manufacturers, the making and offering of inferior wines. Far better make it into vinegar, or let the hogs eat the grapes, than put upon the market wines which will bring us into bad repute.

California Fruit Drier.

In the RURAL PRESS for April 1st we gave an exterior view of the California fruit drier. We now have an engraving of the interior, or rather a sectional view, showing the internal arrangement and method of working. We take from the *Sacramento Valley Agriculturist* the following description:

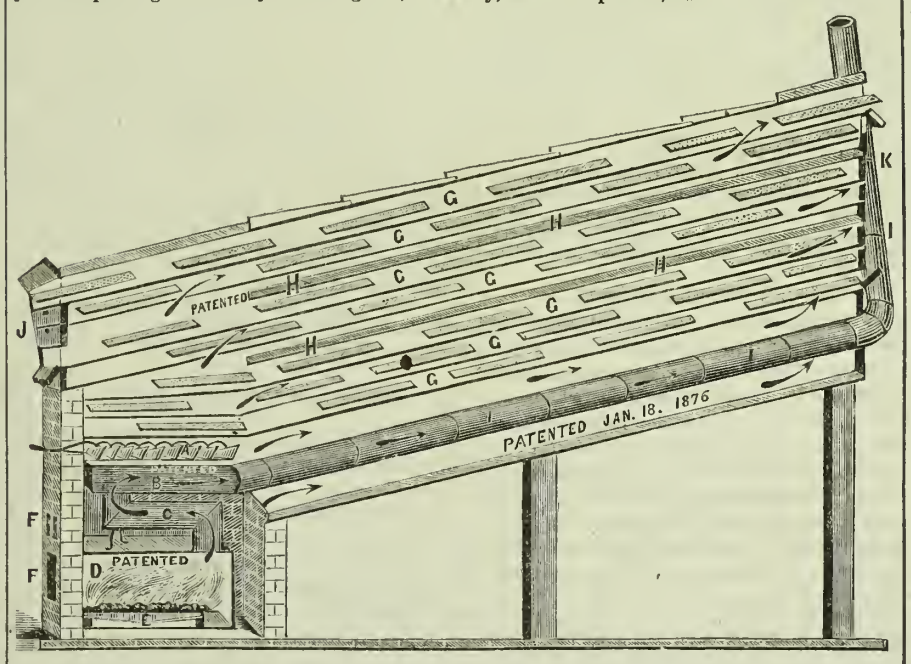
"We call it a preserving machine as as the fruit before us is preserved to a high sugared state, unlike the sun-dried fruit, and is moist, full and plump in appearance. The grapes, plums, prunes, and all other fruits are cured in a dry heat that cures them into a preserved or sugared state so it will keep in that condition any length of time. Nearly all of our grapes can thus be cured in a very high sugared state, and put on the market in a better condition and quality than the foreign raisins. As far as our observations have been made this drying machine excels all others in curing all fruit that contains saccharine juices, and at a cost far less than any known process. Our grape growers generally can take the drier and turn their surplus fruit into the most superior quality of dried or preserved fruit, that will bring the highest prices in San Francisco and in the Eastern markets, where it is in constant demand. To show our fruit growers the large profit realized in preserving fruits on this valuable drier, we will give the actual figures of the fruit preserved on these driers. Mr. J. M Cushing, of St. Helena, states that 220 pounds of French prunes, dried and preserved, netted 94 pounds of dried and sugared prunes, selling for 22 cents per pound; Mr. J. A. Crawford, of Sebastopol, states that his dried and preserved fruit will bring four to five cents more than other dried fruit; Mr. Routier, near Sacramento, who is canning and drying immense quantities of fruit, says that even six cents per pound will pay for plums and prunes dried and preserved on the Dietz patent. By actual test it takes less than three pounds of Malaga or Muscat grapes to make a pound of highly sugared raisins, superior to the sun-dried. Mr. Chandler, of Marysville, says that his fruit is splendid and intends to dry all the different varieties of grapes on the Nickelson ranch, near Lincoln. Mr. Grosh, on the Bidwell ranch, at Chico, sold apricots dried on this drier, at 30 cents per pound; Mr. Erick, of Marysville, received the highest price for all the different dried and preserved fruit sent to the city, and the commission merchant writes that he wanted all that could be had now. This shows that our grapes, plums, prunes, apricots, nectarines and peaches can be sent East to an unlimited market, and will net good paying prices on account of its superior quality, and keeping for any length of time, being free from all eggs of insects and dirt. The capacity for curing grapes in these driers is very large. They are built by the Sacramento Plow Co., Sacramento.

James R. Keene as a Farmer.

Circumstances make it our privilege to welcome James R. Keene, Esq., to the guild of agriculturists. Mr. Keene has achieved almost a national fame by his success in various enterprises. The field of mining enterprise has yielded him gold as plenty as a crop of carrots. His financial skill, foresight and insight have enabled him to cut a swarth, wide as the new Stanislaus header, through the ranks of those who have upheld for him golden opportunities. He comes to the farm clothed in all the prestige of success in the lines which he has been pursuing, and we are prone to welcome him, not through any reverence for what he has done, but because of the good service which he can do for the agriculture of this State if he is so disposed.

No small part of the advance which has been made in developing the agriculture of the world has been derived from the enlistment of men of wealth in farm interests. It is true that most of their efforts have been failures, measured by the standard of successful farming, but the world has learned almost as much from failures as from successes. Amateur farmers have tried the experiments and paid for them; practical farmers have applied the results of these experiments in the light of their own hard earned experience and have profited thereby. The agriculture of this State demands many experiments to decide what are the best practices under the various conditions which prevail. The fullness of youth is passing from many of our regions, and the sturdy, close and calculating work of manhood is at hand. There needs to be a thorough exploration of the field to discover how treasures may be gained. These efforts require time and capital more than the working farmer can give to them. It is meet that some one who has these to spare should proceed to a demonstration and teach us by results in what way it is advisable for us to modify our practice and improve our methods. We have hinted that much of this work has been done by the enlistment of men of wealth and leisure in agriculture, and yet we have said that most of their efforts have been failures. This is all true. It is often a wise man who knows how not to do a thing. Our readers may think after all this is but a cold welcome we hold out to Mr. Keene. We do not mean it so. We hope that he will bring to his agricultural operations all the vigor, shrewdness, and all the success, too, which have marked his enterprises hitherto. We have merely pointed out a way in which he can do the State good service, even if all his bees and beets should be "bulls" and not bonanzas. We do not suppose that Mr. Keene expects to draw much that is "bright, yellow, hard and cold" from his ranch. His resources are too wide and various to give him such a thought, but as he comes to court acquaintance with the soil we hope that it will give him health and entertainment such as the city counting room cannot afford, and that he, in return, may give to the cause of the agriculturist much valuable information and hints for profit from the results of liberal investment and generous management and experience.

We are led to these reflections from what we heard concerning Mr. Keene's agricultural plans during a recent visit to the old Mission San Jose in Alameda county. He has purchased the property known as the Board ranch, and is consequently possessed of a fine stretch of country extending from the hill lands beneath Mission peak down to the line of the San Jose branch of the Central Pacific railway. The ranch contains 4,100 acres and is capable of as wide improvement as the most generous investor could describe and execute. The hillsides welcome the grape, and the slopes, lying within what is known, locally, as the warm belt among the foothills, foster a splendid growth of orchards and give early maturity to many of the semi tropical fruits. A lively and perpetual stream furnishes full irrigating facilities, and considerable spaces lie as though intended for the artificial spreading of the waters. This is, in brief, the field for agricultural enterprise which Mr. Keene has chosen. We are not aware what are his plans for its development. He has secured as manager Mr. I. C. Woods, a gentleman of much energy and scientific attainments, linked with a commendable appreciation of the practical. His management evidently is proceeding upon the praiseworthy plan of gaining the best available opinion and knowledge upon all the enterprises which he has in contemplation. One of his plans was to give the manufacture of sun-dried raisins a thorough test, and he invited Mr. W. A. Sanders, of Fresno county, to pass judgment upon his adaptability for that enterprise. This is a matter which needs a thorough trial under all the conditions which prevail in the different parts of the State, and we hope to hear of experiments which would throw new light upon the question of drying floors and good raisins. But Mr. Sanders, from his examination, pronounced the experiment unlikely of success because of the atmospheric and climatic conditions which prevail. It is one of Mr. Woods' plans to greatly extend the dairy, which has been kept in a small way on the ranch, and to turn some of the land into alfalfa. The building up of a fine dairy herd is one of the most commendable of agricultural efforts, and we trust success will be gained in this venture. More than this we are not informed of the plans which will be worked out on Mr. Keene's property, but we hope they will be full of action and enterprise, and we trust they will entitle Mr. Keene to eminence in arts in which he is now a novitiate.



DEITZ PATENT CALIFORNIA FRUIT DRIER.

Explanation: *a*, Regulator. *b*, Drum. *c*, Pipe. *e*, Grate. *f*, Air Holes. *g*, Fruit Trays. *h*, Partition. *i*, Pipe. *j*, Door. *k*, Door.

SHIPMENT OF ALFALFA HAY TO ENGLAND.—As a matter of interesting news we mention the fact that the shipment of alfalfa hay from the La Plata region of South America to England is proving profitable. The English consul at Rosario writes to an English exchange as follows: "The quality of lucerne produced here is good, and it can be placed in England at a cost of about 5 pounds per ton. If it can be there sold at an advance of 10 shillings per ton, it would leave a fair remuneration both to the producer and shipper, and this department alone could ship a hundred cargoes annually, which could be indefinitely multiplied in the course of a very few years, as the land once prepared and sown requires no further preparation or sowing for from fifteen to twenty years, and the yield is five to six crops, or cuttings in flower, annually."

CATTLE SALE.—We receive a circular announcing a public sale of 15 head of pure bred Jersey cattle at Agricultural park, State fair week, Wednesday, Sept. 20th, 1876, at nine o'clock A. M. The cattle comprise the entire herd of L. C. Powers, of Sacramento, and are all claimed to be of perfect pedigree.

WINDMILLS.—Those in need of water-drawing machinery should examine the quality of the "Enterprise" advertised in the PRESS by Horton & Kennedy, of Livermore, Cal. They have been thoroughly tested on this coast and have many advocates.

LETTERS from the U. S. fishery reservation on the McCloud river are very discouraging as to the prospect of obtaining a large quantity of eggs or young fish this season.

THE Icelanders are emigrating from their country as fast as possible.

Wheat Demand and Supply.

The wheat market maintains its dull monotony of price. The whole situation hangs upon the needs of the European markets, and it is not easy yet to fix upon them with certainty. Dispatches are received from time to time giving claimed "facts and figures," and often the conclusions drawn are at variance with the figures given in connection with them. The *Journal of Commerce* this week reviews one of these dispatches, and, using the figures given, reverses the decision as follows:

Statistics in the hands of incompetents are very uncertain things, and a better illustration of this truism we do not remember to have seen than that afforded by a telegraphic dispatch from Europe, published last Friday morning, describing the wheat needs and wheat supplies of Europe. The figures given, which are probably in the main reliable, though in some instances egregiously erroneous, prove conclusively that wheat supplies will be short this year, notwithstanding which the telegram concludes in this wise: "These figures indicate that the supply of wheat for 1875 and 1876 (? 1875 —— 1876) will be fully equal to any possible demand, in which it will be in vain to look for high prices." Now what are the figures? Reduced to centals they are as follows:

DEMAND.

	Ctls.
Great Britain—10,500,000 qrs.	50,400,000
France—10,000,000 qrs.	48,000,000
Belgium and Holland—10,000,000 bush.	6,000,000
Italy and Mediterranean countries—20,000,000 bushels.	12,000,000
Total needs of importing countries	116,400,000

SUPPLIES FROM

Russia—50,000,000 bushels.	30,000,000
California and Oregon—15,000,000 bush.	9,000,000
Eastern U. S. and Canada—60,000,000 bush.	36,000,000
Chile—5,000,000 bush.	3,000,000
Australia—4,000,000 bush.	2,400,000
India—3,000,000 bush.	1,800,000
Total	82,200,000

TOTALS.

Demand	116,400,000
Supply	82,200,000
Deficiency	34,200,000

We have in each case taken the lowest figures and the result is as given. Were this to be depended on, there would be a good outlook for California wheat this year, and better prices than ever would be had. But in some instances there are terrific blunders in these estimates. California and Oregon will certainly export between them 15,000,000 centals, and probably will export 18,000,000—may export 20,000,000 centals. Germany and Denmark, did they do proportionately as last year, would have 4,000,000 centals to spare, and Turkey and Egypt 1,000,000 centals. Making the corrections rendered necessary here we would have:

	Ctls.
Deficiency as above	34,200,000
Less under est. Pacific Coast	6,000,000
Less Germany and Denmark	4,000,000
Less Turkey and Egypt	1,000,000—11,000,000
Deficiency as corrected	23,200,000

Then the imports of Great Britain last year would be 47,460,000 centals, and allowing that the crops turn out the same, and making proper allowance for increase of population, her needs would be 48,000,000 centals, that is to say 2,400,000 centals less than given by the author of the dispatch. This would still leave a deficiency of 20,800,000 centals; quite enough to secure much better prices than those at present offered in this market. Of course when such egregious blunders are made as we have shown to be made in some parts of this telegram, it is very unreliable as authority, but if its figures are worth anything there will be a large deficiency in the wheat supplies this year.

ALKALI SOILS.—Amid the prejudice against the application of manures which widely exists in this State, there comes now and then a testimonial of the value of manurial substances. It seems that the crusts of alkali which form in some of our counties may be turned to good account where they lie instead of being washed out. I. D. Stockton, of Kern county, writes to the *Californian* against the use of plaster as a cure for alkali, and instances the following: Mr. J. Murphy of Visalia is owner of alkali land which deposits white salts from black water. On a part of this land, during the last few years, he worked in 130 wagon loads of stable manure per acre, which is now black, rich soil, fine fruit growing on the same. Mr. Murphy says he would not take less than $500 per acre for the made soil. The conclusion would be that, in some localities at least, the best treatment for alkali soil is a liberal application of vegetable matter and animal excrement.

LARGE FIRE.—Again are we called upon to record a terrible catastrophe in the shape of fire. A whole block, bounded by Brannan and Townsend streets north and south, and Third and Fourth streets east and west, was almost entirely destroyed, leaving hundreds houseless, and throwing 90 sick out into the night air from the German hospital, which was destroyed. Loss is variously estimated from $600,000 to $1,000,000. The fire commenced in the Pacific box factory, and high wind and scarcity of water caused the great destruction. Three lives were lost.

THE Delaware and Hudson canal company has issued a list of reduced prices for coal. The prices to contractors for coal discharged in carts in New York, per ton of 2 240 pounds, now stand: broken, $4.05; egg, $4.15; stove, $4.65; nut, $4 55. This is equal to about $1 55 per ton off from former rates.

The Dairy.

The Dairymen's Meeting—Subjects for Consideration.

The *Record-Union*, of Sacramento, has some timely suggestions concerning the work before the coming meeting of the California dairy men's association. As this is a subject which we desire to bring fully before our dairy readers, we quote as follows:

On the 4th day of October next will be held an adjourned meeting of the State dairymen's association in San Francisco. At a previous meeting a permanent organization was effected and the objects of the association generally talked over and the present meeting ordered for the purpose of discussing more fully and minutely the interests of the dairy in California generally, and special matters of practice in the several departments of the business. Now, we presume that those who have called this second meeting have considered the whole subject well and prepared a programme, the carrying out of which at the meeting will produce certain beneficial results which they have in view. If such programme has not been agreed upon, and is not previous to the convening of the dairymen of the State, then we fear that the results attending the same will neither be as beneficial nor as satisfactory as they might be. It too often happens that the projectors of these industrial meetings neglect this preliminary preparation, and hence it too often happens that but little real good is accomplished by them. This fact is our only apology for the suggestions we are about to make. We do not know how long it is intended to have their meeting continue, but as a preliminary suggestion, we would think that it should continue at least two or three days. The latter period is full short enough to deal with the many and important subjects that should be considered by the meeting, and when members have spent their money for traveling expenses, and their time in coming, it would be poor economy to separate without accomplishing a work that will fully compensate them for both their money and time. We hope, therefore, that not less than three days will be fixed upon for the meeting, and work laid out for each day, so that those who attend may make their calculations for stopping that length of time before leaving home, and that they may also prepare for the consideration of the matters to be brought before the meeting. Having fixed upon the time of the continuance of the meeting and the subjects to be discussed by it during each day of its continuance, it would be well to invite able and practical men, especially qualified for the task, to open the discussion upon each branch of the dairy interest, by the reading of essays, illustrating their own practices and experience. Following the reading of these essays there should be full and free discussions of the subjects treated of, these discussions to be founded upon the actual experiences and practices of the speakers. As one of the most important subjects for consideration we would name the

Climates

Of the several sections of the State and their deleterious and beneficial effects upon the dairy interests. This might be subdivided into the climatic effects upon the stock itself—the growth and development of the young cow, then training her through her several stages of improvement by age to her most profitable or useful period, and then through her corresponding stages of decline. Under this general head a comparison of our climate with that of other States and countries will be in order, and comparative profits of the business in these several States and countries will become an interesting matter of inquiry. Also a comparison of the climates of the several sections of our own State, and the advantages and disadvantages of the same to the dairy business would form a subject of great interest, and illustrated by the statement of the experiences of practical and intelligent dairymen in the several sections, would be very instructive. The subject of

Feeding

Of dairy stock in summer and winter would form another interesting matter of inquiry. Like the preceding subject, this should be illustrated by the experience of those engaged in the business, and might embrace the kinds of food, the manner of giving it, and the results as shown by actual experiment or general practice. Under this head would come the practice of soiling, as compared to the common practice of feeding from the pasture. Also, the question of feeding whole or ground and cut and steamed food. The time of having dairy cows come in, and consequently the season of the year they are to be expected to give the largest quantity of milk, together with the mode of feeding, would be appropriate to this division of the subject, particularly with reference to the price and market of butter, both here and in the Atlantic States. The comparative value of alfalfa and other grasses and clovers, as forage plants, and of roots, as compared to grains. In this division of the subject there is a wide field for useful discussion, and in the hands of practical men its consideration would become of great importance. Then, too,

The Breeds of Cattle

For the dairy in this State is a matter that should receive the early and careful consideration of the members of the association. Upon this subject we know there are a great many opinions, founded upon practice of individuals, and a thorough comparison of ideas, accompanied with the reasons as founded upon facts, would be beneficial to all immediately interested, as well as to many who are not but contemplate becoming so. There are dairymen in the State who maintain that the common American cow, with no foreign blood in her veins, is the best dairy cow. There are others who will recommend a mixture of the Durham or Short Horns with the common stock, all things considered, makes the best dairy stock. Then again, the Ayrshires, the Jerseys, the Devons, the Holsteins, either pure or mixed with the common American stock, or crossed with each other, all have their advocates. There are still others who would disregard all considerations of blood, and depend entirely upon selection and breeding for special qualities. A comparison of views upon all these subjects, founded upon actual experience, could not be otherwise than very beneficial to all. The subject of co-operation in the dairy business, by the formation of factories, is another matter that should be thoroughly considered. The introduction of cheese factories in the Atlantic States has increased the value of the dairy business more than 25 per cent. Besides reducing the cost of production materially, the quality of the article produced has been greatly improved. Whether the same results would follow the introduction of the same or a similar system here, is a matter for consideration; and whether its introduction would not be followed by the adoption of the dairy business as an adjunct to wheat farming, is an important consideration. A few cows could then be kept on each farm, and all the dairy products necessary to be used produced without interfering with the general cultivation, and the feed consumed by the cows would be so much clear gain. There are many other branches of the dairy business that might be taken up by the meeting, and especially the means of lightening the work indoors, which is mostly done by women, and which is among the hardest of her household duties. In this connection we would suggest the propriety of inviting the dairywomen of the State to become members of the association and to take part in its proceedings. With the suggestion that the meeting should be generally attended, we will dismiss the subject for the present.

Comments Upon the Foregoing

Quotation from the *Record-Union* we desire to make as follows: It is to be hoped that every dairyman will come to the meeting prepared to present the topics for discussion which are of most interest in the region from which he comes. All of the remarks of the *Record-Union* are pertinent and the points made are worthy of full discussion. There are others involved in manufacture, handling and marketing the products of the dairy which are not less important. All points should be brought forward at the meeting.

We will say farther that it is expected that the session of the meeting will cover two days, and that nothing will be pushed over in haste. The length of the meeting will be governed only by the interest manifested and so long as there are important matters presented there will be time to consider them.

It is altogether right that an outline of subjects should be printed prior to the meeting and each thing be taken up in its order. The secretary expects to issue a circular in due time, which will furnish information of this kind. In order that this general announcement may embody all the points of dairy interest in the different parts of the State, he earnestly invites correspondence from all dairymen. Let each reader send to the Secretary the subjects which he and his neighbors are most interested in, and name any pertinent subject for discussion which he will introduce. This is a movement in which every dairyman is invited to take part, and we trust that the coming meeting will result in a better general understanding of the condition of the industry in this State than now exists.

We may state that invitations have been extended by letter to a number of dairymen and students of the sciences involved in dairy practices, and they have consented to bring forward important and timely addresses. What is now desirable is that the dairymen should bring to the notice of the secretary those matters upon which they desire discussion or action. Any correspondence concerning the meeting may be addressed to E. J. Wickson, Secretary, office RURAL PRESS, S. F.

Poultry Yard.

M. EYRE, JR., Napa, Cal., Corresponding Editor of this Department.

Experience with Brown Leghorns.

We receive this week two letters from our readers speaking of the value they find in Brown Leghorn fowls. E. H. Cheney writes from Bodega: "My Brown Leghorns, which I raised from eggs sent my by M. Eyre, Jr., are fine, and as to egg producing qualities they are incomparably superior to any other breed I ever tried. They commenced laying before they were five months old and have continued laying ever since. They may well be termed the 'everlasting layers,' and being the hardiest of breeds, should come into general favor."

Leghorns for the Ranch.

EDITORS PRESS:—The question is often asked, which are the most profitable fowls for the farmer? I know no better way to give my experience to all who are interested in such subjects than through the columns of the RURAL PRESS. I have for several years been experimenting for the purpose of ascertaining the best fowls. I commenced with the best common fowls I could procure; then I got Black Spanish, Silver Spangled Hamburgs, Brown and White Leghorns, Light and Dark Brahmas and Buff Cochins. I kept each breed separate, with some of my best common hens with each. The Black Spanish and their cross are good, but too delicate when young and growing. The Hamburgs have the same objections (besides, they are very small). With the same care that they require, I can raise at least a third more of either Brahmas or Leghorns, but all the Asiatics mature too slowly to be profitable. Here, in the San Joaquin valley, at least, this is true; for to do well here, chicks should be hatched from the first of January to the middle of April, and not later. Before the Asiatics are sufficiently mature for market the price is down, so they are not profitable, and to keep them over will not pay. For instance, in 1875 I commenced setting hens the first day of January, and on the 6th of April I shipped to the city three dozen half-Leghorn cockerels, and got returns at $7 per dozen on the 20th. I shipped four dozen more and got $8 per dozen. Then I fed the half-breed Brahmas a month longer, and shipped such as were sufficiently fledged, and got $4.75 per dozen for them. This season I was busy and neither fed nor cared for them so well, and the difference in time of becoming sufficiently mature for market was still greater, showing that when left to shift for themselves the Leghorns are best. That my stock was good, I need only name M. Eyre, Jr., of Napa, Jas. Littlehale, of Stockton; or Mrs. L. J. Watkins, of Santa Clara, as any one who has dealt with either, I think, will agree that they are trustworthy and generous in their dealings. In future I shall keep only Brown Leghorns (as they have proved the hardiest with me) and good common hens for setting, for it will not pay a farmer to bother with more than one breed at a time.

J. M. KERLINGER.

Ellis, San Joaquin county, Cal.

[From Mechanics' Fair Daily.]

Farmers at the Fair.—No. 2.

"Well, Kiah, ain't it most time to go. The fair will be so full if we don't go early that my rheumatic leg will get knocked to pieces afore we see anything," said Grauther last night as soon as we had got our suppers disposed of. We eat dinner at noon and supper at six o'clock even when we are in the city; and I confess that I can't answer the old man's logic when he says dinner means noon and supper means night, all the world over, and has, ever since the Declaration of Independence; and neither of us can reconcile our notions of health with the practice of making the evening meal the heartiest one of the day.

So we got aboard the bobtail cars, as your city folks call them, and were almost the first to enter when the doors were opened.

"It looks kinder natural, Kiah, don't it? Seems just as though I had been here afore, but somehow after all it looks as if something had got turned around; just like a bed-room does when you put the bed round on t'other side and hang up your clothes at the foot on't, instead of behind it. But it's a leetle different, ain't it, Kiah? The fountain is just the same place; the garden and flowers and fruits are just about the same; the fellows with brass horns look just like they was brothers to them that played two years ago—may be they are the same ones; who knows!" And thus the old man rattled on, and ran over the record of the other fairs on his mind, and compared the past with the present. But the crowd gradually thickened around us, and jostling elbows and dodging boys disturbed his reverie, and with a disappointed, bewildered look he moved on.

Did you ever notice that peculiar look that will come over the aged face when deeply engaged in musing over the past. A look that in itself tells of bygone days and things of the past. Now and then a fleeting look of anger or pain will flash across the face, rippling the surface like a breath of wind over a still o'er-shadowed lake; anon a kindly, pleasant expression will spread over the wrinkled, time-worn visage, as some tender recollection or mirthful reminiscence will pass through the brain. And did you ever notice that when rudely or suddenly disturbed, even by good tidings, an indescribable expression, half anger, half pain, almost a lost look, will flash across the weather-beaten features, and for a moment seem to unsettle the mind of the muser? If you have not, then have you been very unobservant of your grandparents' physiognomy, and have oftener been repulsed in your little requests than gratified. I never disturbed my grandther when in a muse if I had a request to make; it always damaged my cause. It was always better to wait patiently until he recalled himself from his reverie without interference. Once or twice his whole evening at the fair has been teetotally ruined by a rude elbow awakening him from his muse before the end of his tangled skein of memory was reeled off to his satisfaction. Children, remember this in the future, and don't be hasty in preferring your requests to old people. Bide your time as you would watch for the tide to go down to catch clams. Wait until they are at leisure in mind as well as body, then tell your tale. My word for it you will succeed oftener than you fail, if the request be at all suitable and moderate.

"Jest look at the bottles, Kish; wouldn't your mother like to get hold of that pile to put up sarsaparilla and gimsen in? And them big mouthed ones would be powerful nice to put up fruit in. Hello! du tell! E-l-astic d-e-mijohn—eh? you don't mean to say they will stretch, do you? No? Well, I thought if they would there might be some truth in Zeb Smith's story of putting five gallons of whisky in a four gallon jug. He said it was powerful hard on the jug, though."

As the old gentleman didn't seem fully satisfied without something further about the elasticity of Newman's demijohn, I explained as well as I could what the covering was intended for, and he admired the neatness and utility of the invention, but could not endorse the appellation.

"'Pears to me that might as well have been anything else as an elastic bottle. It don't stretch, nor it don't shrink, so where is the elasticity? To be sure that covering of tule does kinder sheer off a good many hard knocks, and is capital, but some other name ought to be put on it."

Why don't the people exhibiting goods either explain them in person, or in the FAIR DAILY? We country folks want to know all about them; where they were made, what they were made of, who invented them, and very often what use they are intended for. Sometimes we come across something that we know no name or use for, and a little enlightenment on the subject would assist us wonderfully.

Grauther is again lost in thought, and I doubt not his mind has reverted to the time when applejack and doughnuts constituted the sumptuous fare of an evening's gathering of young folks to pare apples and husk corn. I'll not disturb him, but talk to you awhile.

Did you ever attend one of these old fashioned apple parings, where the lassies paired off with the laddies, and a race ensued as to which pair should pare the most apples? Did you ever count apple seeds—"one I love, two I love, three I love I say; four I love with all my heart, five I cast away; six she loves, seven he loves, eight both love?" Did you? Ah! what a shout went up if you counted up to fourteen seeds in one apple. Then came an interruption to apple paring while lips paired off. And when the friendly contest was decided, and the work laid aside, have you joined in "blind man's buff," "button," "consequences," "hurly burly," and "hunt the slipper?" If you come from north of Mason & Dixon's line you certainly have, and would certainly dodge now were any one to suddenly cry out "bloody shins!"

And the husking! Have you ever carried red ears of corn in your pocket to the frolic, the oftener thereby to "go to Rome?" Perhaps you were too staid, or were gifted with a bashful disposition, or were lame in one leg so that you had no chance at such frolics? If so, I pity you, and pronounce that you have lived in early times in vain. Such frolics are relics of the past. Apple parers and patent dryers have done away with the jack knife, wire needle and twine; husking machines and hog culture have abolished the husking frolics. We may be richer in purse therefor, but we are the poorer in social virtues and neighborly kindness for it.

Grauther says it is time to quit this nonsense and go to bed. Well, let the fair wait until another night, and meantime I bid you good night.

ZEDEKIAH.

THE INVENTOR OF THE REAPING MACHINE.—The generally received account of this machine states that it was the sole invention of the Rev. Patrick Bell, the minister of a parish in the northeast of Scotland; writers on agricultural subjects, as on every other, being accustomed to copy each other's facts with little trouble in the way of verification. However, as in the case of still more important machinery, later investigations seem likely to lessen Mr. Bell's credit as an inventor, and to place his character in a rather unpleasing light. Mr. Bell, it seems, had a brother named George, and a proposal to erect a statue to the popularly-accredited inventor has induced certain parties to bring forward that person's claims. From their statements it would seem that while the clergyman must retain the merit of having discovered the principle, to George Bell is due that of having first brought it into practical use. Lord Kinnaird, who was intimately acquainted with both brothers, says, in a letter to the *North British Agriculturist*, that he personally watched the efforts of George Bell at his farm, and maintains that but for his admirable perseverance the machine would have been dead and forgotten years ago; and he farther hints that the unjust refusal of the reverend gentleman to share the merit of the invention and the proceeds of a testimonial with his brother was the beginning of an estrangement between the two, a difference which weighed heavily on the mind of George Bell, during a long and painful illness, terminating in death, during which he longed to see his brother, in order to be reconciled—a feeling evidently not reciprocated by the other.—*Iron.*

Altitude of Our Hills.

Professor Davidson has for some time been engaged in taking observations from the top of Monte Diablo, and furnishes the following list giving the height of hills in sight from Monte Diablo:

Clay street hill, San Francisco, has an altitude of 387 feet above ocean level, and is distant 32 miles.

South Farallone island, 350 feet altitude, distant 66 miles.

The sea horizon is distant 83 miles.

Mount St. Helena, 4,343 feet altitude, distant 68 miles.

Mount Tamalpais, 2,604 feet altitude, distant 39 miles.

Snow Mount, south-west angle of Mendocino county, 7,000 feet altitude, distant 114 miles.

Mount Monticello, west of Cottonwood, 3,030 feet altitude, distant 57 miles.

Mount Vaca, west of Vacaville, 2,340 feet altitude, distant 35 miles.

State Capitol, Sacramento, distant 53 miles.

Marysville Butte, 2,039 feet altitude, distant 92 miles.

Lassen's Peak, 10,650 feet altitude, distant 183 miles.

Downieville Buttes, 8,720 feet altitude, distant 157 miles.

Lola Mount, near Truckee, 9,280 feet altitude, distant 138 miles.

Pine Hill, near Folsom, 2,150 feet altitude, distant 77 miles.

Pyramid Mount, 10,290 feet altitude, distant 114 miles.

Round Top, overlooking Placerville road, 10,650 feet altitude, distant 120 miles.

Stanislans Peak, 11,500 feet altitude, distant 125 miles.

Mount Lyell, about 10,000 feet altitude, distant 144 miles.

Mount Hamilton, site of the Lick observatory, 4,300 feet altitude, distant 52 miles.

Santa Lucia range, south of Monterey, 6,200 feet altitude, distant 132 miles.

Mount Bache, north of Santa Cruz, 3,790 feet altitude, distant 54 miles.

The area actually within view from the summit, including land and ocean, is computed by Professor Davidson to be about 32,000 square miles.

Local Botanical Points.

At the last meeting of the California Academy of Sciences, Dr. A. Kellogg gave a report on a dozen or more plants, some of them new species and the others in certain respects peculiar. These included a species of phacelia found by Sam. Brannan, Jr., in 1871, at the top of Granite mountain, Kern County. The flowers are purple-blue, and the stems shaded a little with yellow. Plants of this species are highly valued for the garden. Dr. Kellogg christened the specimen after the finder. A new species of the wild pea, brought from Southern California by Mr. Hutchins, was exhibited, and the name given to it is *Macrocarinatus lathyrus* It is, perhaps, one of the most ornamental yet discovered. The stem is perennial, and it twines round large bushes, attaining a hight of five feet, and hangs with large clusters of purple blossoms, larger than any known heretofore of this genus. Of a third plant, *A. psoralea*, left by Mr. McLane, a student at the University, and said to have been collected on Tamalpais, Dr. Kellogg did not think it possible to make a new species. He thought it probably a foreign plant that had got mixed up in the portfolio of the collector. A fourth plant Dr. Kellogg named the *Lupinus sericatus* from the satin-like appearance. The flowers are purple-blue. It was found in Lake county by a Miss Anderson. The stalk of a sun-flower, obtained in Owen's valley, was shown, with the remark that probably it would be included in the *Helianthus Californicus*, as a very distinct variety. The farmers say it has recently appeared in the vicinity. It has a white stem, very smooth, and as many as 300 blossoms form on one plant. As a feature for the park it is very valuable. Among other plants presented were specimens of *nemophyla* and *calindrinia*.

THE TRANSPLANTATION AND IMPLANTATION OF HAIRS.—An interesting paper on this subject appears in the *Zeitschrift fur Biologie*, from the pen of Dr. Ernest Schweninger, of Munich. He gives the following as the result of his numerous experiments: First, that the hairs that have been recently extracted, and to the root of which cell-layers of the root-sheath still remain adherent, if brought in contact with freshly granulating surface, are capable of contracting adhesions with this, and from this point a process of skinning over may commence, as after cutaneous transplantation. He has further shown that such hair root-sheaths can attach themselves to the iris and continue to grow. The iris, therefore, constitutes an excellent place for conducting experimental researches of this nature.—*Lancet.*

THE ARRIVAL OF PROFESSOR HUXLEY.—Professor Huxley, the celebrated English scientist, has arrived in this country. He is at present traveling privately, and will devote the greater part of his brief visit to the Centennial Exposition. It was not his intention to deliver any lectures here, but he has lately reconsidered his determination, and has consented to give three discourses during the latter part of September, in New York city.

Wire Work.

The collection of useful and ornamental articles embraced under the head of wire works, can hardly be enumerated or realized, except we are placed directly in contact with them, and then we are astonished at their number and variety. Mr. A. S. Hallidie, president of the Institute, makes a fine showing of California industry in this line of goods. His display is unique, varied, tasty and multifarous, and demonstrates the usefulness of this class of manufactures.

Among the many articles we will enumerate round, flat, and oval wire rope of all sizes; brass, copper, and steel wire; silver plated wire; wire cloth and netting of many grades and widths; wire of all kinds for use of the different trades; garden trellises, summer houses, rustic chairs and seats, bird cages of innumerable patterns, fire screens, fly screens, and some pretty window screens, colored and ornamented with rustic views. These latter are very nice for kitchen and storeroom windows, being so close woven that a flea would have to tone down some to get through. But, perhaps, what is more interesting to many than all these, he exhibits in full operation the veritable old loom of our grandmother's, actually

Weaving Wire.

By the same old treadle and shuttle throwing process that they used when manufacturing "linsey woolsey" frocking, and "300-linen." This is quite a treat, and something old that to many visitors is entirely new. The children especially ought to thank Mr. Hallidie for this one thing, if for nothing more. There are also many articles of table use in his exhibit, such as castors, fruit baskets and the like, manufactured of white metal wire, that are very tasty, unique, and attractive.

The universal consumption of wire goods in the last few years has greatly stimulated the inventive genius of manufacturers, and wire is now used for a hundred and one purposes that twenty years ago were unthought of, and we believe the next ten years will see still more progress in that direction. We think that a cheap and useful article would be an arch for grape trellises that could be placed upon wood posts, the arches having loops through which wire could be stretched longitudinally for the support of the vines. This would be convenient for use in country residences, where wood posts would be cheaper than wire or iron, and the wire arches neater and better than wooden ones.

Mr. Hallidie has succeeded to the business of J. M. Eckfeldt & Co., and has united it with his own under the name of the California Wire Works, and now has his office and salesroom at 412 Clay street.—*Mechanics' Fair Daily.*

The Averill Paint.

A walk through the works of the Averill Paint Company, corner of Fourth and Townsend streets, is highly instructive and entertaining, and we would advise persons interested visiting the city to spend a part of a day in that way. But it is not of the works that we intend to speak in this article. It is of the paint itself that we propose to discourse. A wrong impression has gone abroad regarding this valuable invention that should be corrected It is not so much the fault of the people as it is of those who first gave the paint its commercial name. From the fact that it was called chemical paint arose the mistaken idea that it was not really a paint after all, but a substitute for the paints then in use. That is not the fact. It is a paint, and manufactured of nearly the same material as the paint commonly in use, with the addition of certain chemical compounds to improve those qualities most desirable in the lead and oil paints of every day use.

The object of the inventor was to manufacture a paint that would continue to be a paint for all time to come, from the time of first mixing until its complete destruction by the elements. Common lead and oil paint separates into its constituent parts if allowed to stand a few minutes after mixing. If put upon a building the oil often penetrates and leaves the lead to be rubbed off like chalk, or beaten off by the weather.

Not so with the Averill paint. Being composed of lead, zinc and oil, all of the purest, it would be the best of paint with no additional constituents. But the addition of water glass—soluble glass—causes a chemical combination of the lead and oil so that they will not separate under any circumstances either in the can or on a wall. It is thoroughly ground together in manufacturing, is not affected by rain either when fresh or dry, and has more gloss than ordinary lead paints.

The Pavilion was painted with two coats of it eighteen months ago, after having stood one year without paint.

The Capitol building, corner of Kearny and Pine streets, and the building northeast corner of Sutter and Montgomery streets, were painted with it six years ago. The latter has since been washed, which would destroy other paint entirely. All these buildings attest its merits.

It is more economical, as it takes less of it to do the same work. We have used it, and want no better paint than the Averill.

METEOROLOGICAL.—*Iron* makes note of recent facts in the application of meteorology to industry: On the first of May last, agricultural weather-warnings began to be issued from the Paris observatory. While the forecasts made for the benefit of seamen and fishermen relate to the intensity and direction of the wind, those for farmers will have reference to the rainfall, thunderstorms and inundations. The last will occasion little difficulty; with the help of the electric telegraph, timely information of heavy rains and the first rising of the rivers will be collected and distributed to the dwellers on the plains. Data will also be collected with regard to all kinds of meteorological phenomena, and may we expect the predictions to become more reliable year by year. As an illustration of the indications which may be relied upon in foretelling change or continued favorable weather, an instance is given in which the latter was accurately forecast from the coincidence of a high and rising barometer in the extreme north of Europe with a contrary condition in Sicily. These indicated a continuance of the polar current, bringing with it clear skies and a consequent increase of temperature during the day, which were predicted and verified by the event. Professor Loomis has also shown that when barometers are high and temperature low in the Aleutian islands the reverse obtains in the United States, that a similar correspondence exists between Iceland and Central Europe, and that the amount of rainfall bears a well-defined relation to the pressure at the center of a storm.

THE NEW WILLCOX & GIBBS Automatic Tension Silent Sewing Machine is the latest and most marvellous invention in sewing mechanism. It is the only sewing machine that can be used successfully without instruction or experience, and invariably does perfect and durable work. First premium at American and Franklin Institute Fairs, November, 1875. Send for circulars and price-list to Willcox & Gibbs Sewing Machine Co., E. B. Cutler, Gen. Agent, 111 Post street, S. F.

AMERICAN MANURES, OR FARMERS' AND PLANTERS' GUIDE.—Comprises a description of the elements and composition of plants and soils; the theory and practice of composting; the value of stable manure and waste products, etc. Also, a chemical analysis of the principal manufactured fertilizers—their assumed and real value—and a full expose of the frauds practised upon purchasers. By Wm. H. Bruckner, Ph. D., Phila. Sold at this office. Price, $1.75; post paid.

THE THRESHERS' GUIDE, by D. W. Hollihan, a practical operator with threshing machinery in California and other States. A book of useful and friendly hints to the grain growers, machine owners and threshing superintendents and workmen. Published at the RURAL PRESS office, in 1872. Price, $1; in limp cloth binding, 75 cents; postage paid.

NOW'S THE TIME.—Everybody interested in mining and agriculture should subscribe for the Centennial year for either the RURAL or the SCIENTIFIC PRESS, published by Dewey & Co., San Francisco. They are the best journals of the kind in this country, and deserve the support of all those whose cause they espouse. Everything of interest connected with the Centennial, appropriate for these papers, will be collated. Send in your names.—*Mountain Messenger.*

IMPROVED.—Dewey & Co., publishers of the MINING AND SCIENTIFIC PRESS and the RURAL PRESS, now have the leaves of both these sixteen page sheets cut and stitched, which is an improvement that all readers of that otherwise inconvenient form of journal will appreciate very much. Every farmer would be a gainer were he to subscribe for the RURAL. It is decidedly a valuable paper, and the SCIENTIFIC PRESS is no less so to mining men.—Inyo Independent.

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

THOUGHTLESSNESS.—Persons sometimes return their paper, marked "stop this paper." Their name being pasted on the sheet they think that is all we need to be able to cross their names off. Now that is thoughtlessness. Your P. O. address is needed as much as your name. We have thousands of names arranged only according to locality. Our mailing clerk does not know where everybody lives.

BE MORE PARTICULAR.—We can only make the changes requested by the following parties on our mail list, when they, or some one else, send us their P. O. address. Otherwise we would have to look over from 7,000 to 10,000 names. Frank Becker, O. Seawell, L. Boyer, M. Levis, F. Anson, and Antonia Byron.

We also want the address of Wm. Buck.

GOOD PRINTING INK.—We prefer Chas. Enu Johnson's printing inks, having used them on this paper for the past four years. H. S. Crocker & Co., printers, stationers, blank book and paper dealers, are Johnson's S. F. agents.—DEWEY & Co., Publishers.

CHOICE VOLUMES.—We have a full new set of *Scribner's Monthly*—ten volumes—well bound, for sale at this office. Price, $2 per volume.

Lands and Homes for Sale.

A Desirable Bargain.

Mr. Lee H. Utt, of Pala, San Diego county, offers for sale a share in his valuable place, consisting of 320 acres, and situated as described above. There is an Apiary on the ranch in successful operation. For this business it possesses marked advantages. Twenty acres are seeded to alfalfa and eight acres are in vines. The place has growing on it 420 trees, many of them in bearing.

The owner will warrant the Cavendish Dwarf Banana to grow as well here as in Florida. He has three now growing. The pasture now enclosed will keep 50 head of cattle. The ditch—which is large enough to run a mill—is stocked with trout, and has a fish pond 100 feet square, and full of fish. There is a nice warm spring, with bath house; the water contains sulphur, salts and iron.

The place possesses great natural advantages, and the present owner has not spared money nor labor to improve; but being a valetudinarian he is not strong enough to attend to the work. To the right kind of a man a rare opportunity is here offered. To such a person as will come in good faith he extends the invitation to stop on the ranch long enough to become familiar with its characteristics and capacities.

Parties can refer to I. Nast, stock broker, San Francisco, or to anybody of note in San Diego. The place bears the name of "Aqua Tibia." Address,

LEE H. UTT,
Pala, San Diego County, Cal.

FOR SALE,

IN LOTS TO SUIT,

5,000 Acres of the Lake Vineyard Land and Water Association.

These lands are in the great fruit belt of Los Angeles County,—only six miles from the city are peculiarly adapted to semi-tropical fruits, and adjoin the famous Lake Vineyard of Hon. B. D. Wilson. The Southern Pacific railroad runs through the land; convenient to schoolhouse and church; water in abundance, and the water-right is sold with the land. Title perfect. A Map of the tract may be seen at the office of Mayor Beaudry, on Spring street, opposite City Council rooms. References may be made to HON. B. D. WILSON or J. DE BARTH SHORB, at Lake Vineyard, who will take pleasure in showing the lands. Also, to MAYOR BEAUDRY or D. FREEMAN, Los Angeles city.

A RARE CHANCE.

FOR SALE—My POULTRY BUSINESS, with my Farm of 115 acres; 22 acres of Vineyard and Orchard; House of 10 rooms; Barns; Granaries; 30 Chicken houses.

Receipts between $3,000 and $4,000 a Year,

Fully proved to the purchaser. Farm Implements, Wagon, Horses, Cows, etc., with Poultry (value over $3,000) included. Price, $12,000, one-half cash. Or I WILL SELL A HALF INTEREST and continue the business in partnership—the purchaser to reside on the place. Address,



M. EYRE, Napa, Cal.

In view of above I offer a few fine Fowls, Bronze Turkeys, etc. (not included in breeding pens and stock sold with farm), at reduced prices.

FARM FOR SALE,

In the Most Fertile part of California.

410 Acres of the Choicest Land in Butte County, four miles from Chico, on Butte Creek.

300 acres grain land, the balance garden land; will grow corn, cotton, hops, potatoes or garden vegetables. A ditch from Butte Creek conveys water upon the highest land; nearly the whole can be made into gardens, or can be easily seeded to alfalfa. The water right will be sold with the farm. The title is perfect. A large part of the price might remain on mortgage. Unless sooner disposed of at private sale the farm will be sold at auction, September 20th. For particulars, inquire of

A. BULLARD, Chico, Cal.

Napa Valley, near Napa City,

240 ACRES OF LAND FOR SALE.

THE WHOLE OR ONE UNDIVIDED HALF INTEREST, AT $32 PER ACRE. FENCED IN FIVE FIELDS. LIVING WATER IN EVERY FIELD. ORCHARD AND VINEYARD IN BEARING OF CHOICE VARIETIES. BUILDINGS GOOD. TERMS EASY. GREAT BARGAIN.

STERLING & THOMPSON, Napa City, Cal.

Grangers' Bank of California,

42 California Street,

SAN FRANCISCO.

Authorized Capital, $5,000,000.

OFFICERS:

PRESIDENT.....GILBERT W. COLBY.
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CASHIER.....ALBERT MONTPELLIER
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The Bank was opened on the first of August, 1874, for the transaction of general banking business.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

FOR WEEK ENDING AUGUST 22D, 1876.

SHARPENING MACHINES.—James C. McLaren and Charles B. Coventry, S. F.

PROCESS ROASTING, SMELTING AND CALCINING ORES.—James Duffy, S. F.

RETORTS FOR DISTILLING MERCURY ORES.—Frederick Gutzkow, S. F.

MINERS' CANDLESTICKS.—Dennis Quinlevin and Robert N. Linebarger, Ukiah, Cal.

SOLDER CUTTING MACHINES.—Ferdinand C. Smith and Charles E. Smith, Portland, Oregon.

STEAM MOVED VALVES FOR ENGINES.—Andrew J. Stevens, Sacramento, Cal.

METHOD OF FORMING EMBANKMENTS.—George Swift and William T. O'Neale, S. F.

TUYERES.—Isaac S. Van Winkle, S. F.

MACHINES FOR RECEIVING AND DRYING SHEETS FROM PRINTING PRESSES.—John D. Yost, S. F.

GAS APPARATUS.—Richard Dean, Virginia City, Nev.

LASTING APPARATUS FOR BOOTS AND SHOES.—David Morey, Watsonville, Cal.

WATER WHEELS.—William H. Rector and Henry C. Black, Santa Rosa, Cal.

LEATHER TAPERING MACHINES.—John Settle of Lebanon and George W Settle, Oakland, Oregon.

SOLDERING FURNACES.—Ferdinand C. Smith and Charles E. Smith, Portland, Oregon.

PUMP VALVES.—Charlotte Thomas, Sacramento, Cal., Executrix of William H. Thomas, deceased.

——The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

Notices of Recent Patents.

Among the patents recently obtained through Dewey & Co.'s SCIENTIFIC PRESS American and Foreign Patent Agency, the following are worthy of mention:

BRICK AND MORTAR HOISTING MACHINES.—Thomas Mann, Portland, Oregon. This patent covers certain improvements on a similar device previously patented by the same inventor. The present improvements relate, first, to the construction of the scaffold or frame of the machine, by which the inventor is able to obviate the necessity of cutting the scantlings or pieces of timber of which the frame or scaffold is constructed; secondly, to improvements in the construction of the carriage or cage which sustains the hod when it is being raised and lowered. The improvements noted are the result of several years' experience with the original machine, and they render the machine complete and easily adapted to any class of work.

SEED PLANTER.—William T. Easterday, Watsonville. This invention relates to a novel device for planting corn, peas, beans, or other seeds, and consists of a double alternating carrier, which takes the seed from the containing hopper and carries it to the dropping spout, being actuated from the bearing or traveling by means of a lever and connections.

General News Items.

THE small-pox epidemic is on the decrease.

THE Indian campaign is considered at an end for the season.

A REDUCTION of 20 per cent. in printers' wages has been made by the typographical union in Baltimore.

SOUNDINGS for the channel tunnel to connect England and France will be finished by the end of August. The engineers report that the result is very satisfactory.

NEW YORK city, with a population of about 1,000 000, pays taxes annually to the amount of $32,000,000; $10,000,000 of which is for interest on the city debt alone.

A BANQUET was given in Paris to the independent delegates representing workmen who have just returned from Philadelphia. Des Moulines described their visit and others made speeches. Letters from Victor Hugo and Louis Blanc were read, and resolutions were adopted tendering thanks to their friends in America for the cordial reception given the delegates.

THE COUNSEL of Henry Ward Beecher, in the suit for alleged malicious prosecution, brought by F. D Moulton, have served upon the latter's counsel notice of an application for a change of venue, on the ground that the selection of an impartial jury in Brooklyn is impossible, because of the great division of opinion among those from whom the jury would have to be selected.

IN connection with the new aquarium now approaching completion in New York, will be an apparatus for fish culture, which will have a capacity of hatching from 50,000 to 100,000 trout at a single hatching.

SEWING MACHINES.—We have a first-class machine we wish to dispose of on favorable terms. Apply at this office.

HENRY NELSON, Merced Falls, is requested to address this office.

Success with Self-Binders.

Progressive harvesting methods are meeting with sucess in Minnesota. A gentleman who came down from the North Pacific the other day gives to the St. Paul *Pioneer-Press* the following interesting notes in relation to Dalrymple's great farm: "The amount of ground sown to wheat this year was 1,300 acres. Harvesting commenced on Monday, with nine self-binders. The machines are run 15 hours without rest, except the ordinary stops for oiling, lunch and dinner, and the result per day is 180 acres. One man is employed to each team, and 12 men follow the machines, shocking the wheat as soon as it is cut. The entire 1,300 acres were to be cut and shocked during the week; stacking and threshing will of course follow. Dalrymple is harvesting his crop for about one-fifth of the cost required under the system in vogue ten years ago. At the time harvesting commenced it was estimated the yield per acre from the entire tract would not be less than 20 bushels to the acre. Grasshoppers had done but little damage, the excessive hot weather came too late to blast the crop, and everyone who saw the waving grain pronounced big wheat farming on the North Pacific a success. The farm on which this crop was grown consists of 30,000 acres on which next season there will be sown to wheat 9,000 acres, the sod of it having been broke this season. During the breaking season Mr. Dalrymple had as bigh as 100 teams at work. The furrows turned were six miles long, and the teams made but two trips a day, traveling with each plow, to make the four furrows, 24 miles. The location of this farm is 18 miles west of Moorhead, Minnesota, in the proposed new Territory of Pembina, and this is not the only big farm in the vicinity, but is the "boss" farm of a dozen or more running from 500 to several thousand acres."

We understand that the self-binders alluded to above are of the Wood manufacture, illustrated and described recently in this paper and sold on this coast by Frank Bros. & Co., 349 Market street, San Francisco.

Fairs in 1876.

The Centennial (World's Fair), Philadelphia, Pa., from May 10th to continue till autumn.

Mechanics' Institute Industrial Fair, S. F., beginning August 8th.

California State Fair, Sacramento, from Sept. 18th to Sept. 23d.

The Southern District Agricultural Society, Los Angeles, from Oct. 5th to Oct. 14th.

Nevada State Fair, Reno, Nev., from Sept. 11th to Sept. 16th.

Sonoma and Marin District Fair, Petaluma, from Oct. 9th to Oct. 16th.

Oregon State Fair, Salem, from Oct. 9th to Oct. 16th.

Northern District Fair, Marysville, from Oct. 9th to Oct. 16th.

San Joaquin Valley Agricultural Fair at Stockton, beginning Sept. 26th.

Contra Costa County Fair, Pacheco, from Sept. 25th to Sept. 29th.

Monterey Agricultural Fair Association, Salinas city, from Oct. 11th to Oct. 14th.

HARD ON THE PUBLISHERS.—Some of our subscribers when called upon by our agents insist that they have sent us notices through (perhaps) a neighbor, the postmaster, or a letter, and we have taken no notice of their orders, for which they feel hard towards us. Now, we never received such notices without responding to them. *It would be suicidal to our interest to ignore them.* The fact is that it too frequently happens that people misdirect their letters; too frequently forget to put the right (or any other) kind of stamps on their letters; they too often send a copy of the paper back, which may never reach our business office, or if it does reach us, may lack the name of the town and county in which the subscriber lives, in which case we cannot (if we have his name) tell what part of our list to find it, to cross it off or change it, without looking over some 10,000 names. Postmasters and their clerks make omissions and mistakes as well. ☞ When you have business with this office remember postal cards and letter stamps are cheap, and ask no one to do that which you can well do yourself. tf

STILL ANOTHER carload of the Enterprise windmills and feed mills (so long known to be the best) received by Horton & Kennedy, Livermore, Alameda county, Cal. (See advertisement in this paper.) Remember, it is the *Perkins windmill* headquarters. Don't wait for an agent to call, or be talked into buying something else; send to Horton & Kennedy for information or goods.

VICK, the popular florist and seedsman of the Flower City (Rochester, N. Y.), is ready for the fall campaign, as will be seen by reference to his autumnal announcement in this paper. Send for his beautiful and instructive floral guide.

E. N FRESHMAN & BROS., advertising agents, 186 W. Fourth St., Cincinnati, O., are authorized to contract for advertising in this paper. Estimates furnished free. Send for a circular.

The Immigrant Bureau Re-Organized.

A Free Employment and General Information Office.

The Peoples' and Grangers' Immigrant Bureau, which accomplished so much good last year, has been re-organized under a new Board of Directors, and will continue its good work of attracting immigration and providing for the necessities of the new comers FREE OF CHARGE. Four thousand and eighty-two situations have been found for applicants since May, 1875. The Bureau expects to receive orders for all the help that may be required in the country the present season. Four hundred persons visit the office daily. Descriptions of land, maps, pamphlets, circulars, and local newspapers, should be sent to the Bureau. They will be freely distributed among inquirers. The Bureau was established by the State Grange, and being supported *entirely* by subscription NO CHARGE is made for any business transacted. The following gentlemen are on the Board of Directors for the ensuing year: Mayor A. J Bryant, Chairman; I Friedlander, C. Adolphe Low, Mark L. McDonald, Amos Adams, J. Regensburger, C. D. Sullivan, Charles Lux, George H. Eggers, J. C. Wilmerding, C. J Cressy, John Morton, Col. A. Wason, Hon. F. A. Gibbs, F. B. Taylor, C. H. Dennison, Claus Speckles, Charles Kohler, A W. Thompson, All communications should be addressed, J. EARL, MANAGER, IMMIGRANT BUREAU, Grangers' Building, 40 California street, San Francisco.

A SOUTHERN HOME FOR SALE.—See advertisement of Lee H. Utt, whose fine place in San Diego county, is for sale.

The GORHAM SEEDER AND CULTIVATOR COMBINED



No Other Machine Presents such an Array of Useful Devices, and, taken together, they Constitute the Gorham Seeder a Machine Distinct and Separate from all others of its Class.

We Ask all Those in Want of a Seeder to Call upon us and Give our Machine a Thorough Examination, or Write Directly to Us.

We can produce single testimonials that would fill this page, claiming for it a reputation as broad as its use is extensive. Among the hundreds who have used them we refer to as many as space will admit, in different parts of the State, who are using from 1 to 16 machines each:

Dr. Glenn, of Jacinto; R. S. Cary, Sacramento; Charley Coyle, Woodland; G. W. Scott, Yolo Co.; Bullard & Co., Chico; John Simpson, Tehama; E. Hunter, Princeton; John Boggs, Colusa; Murdock & Jones, Colusa; Overhiser, of Grangers' Union, Stockton; A. L. Layre, Fresno Co.; I. Friedlander, San Francisco; John Mitchell, Modesto; Grangers' Union, San Jose.

THE SIX-FOOT MACHINE, with two horses, will seed 12 acres per day easily. THE EIGHT-FOOT MACHINE will seed 16 acres per day; THE TEN-FOOT MACHINE, with four horses, will seed twenty-five acres per day; THE TWELVE-FOOT MACHINE will seed 34 acres per day; THE FOURTEEN-FOOT MACHINE, with six horses, will seed 40 acres per day. ☞ Extras of all parts always found with us.

Our Assortment of Harrows is the Most Complete to be found in the State.

Iron Harrows; Hard Wood Harrows, with adjustable hinges; Teeth of the Best Toe-Cork Steel; seven and nine Chisel Tooth Cultivators, with Reversible Teeth.

COLLINS' CAST CAST STEEL PLOWS.

The people of the coast need no longer be humbugged by imitation Cast Cast Steel Plows. We will keep the Genuine Collins' Steel Plows, made expressly to suit the wants of this trade; also, a full line of Extras for the above goods, which we guarantee to fit.

Feed Cutters, Wine and Cider Mills, Barbed Wire for Fencing, Wagons, Spring Wagons, Halliday Windmills, Etc.

KELLER & CO., 43, 45 and 47 J Street, Sacramento, Cal.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Wednesday, Aug. 30th, 1876.

The week brings few changes to the prices current, and trade has pursued an even course.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	CAL. AVERAGE.		CLUB.	
Thursday	9s 1d@ 9s 4d		9s 5d@ 9s 10d	
Friday	9s 2d@ 9s 4d		9s 6d@ 9s 9d	
Saturday	9s 2d@ 9s 4d		9s 6d@ 9s 9d	
Monday	9s 2d@ 9s 4d		9s 6d@ 9s 9d	
Tuesday	9s 2d@ 9s 4d		9s 6d@ 9s 9d	
Wednesday	9s 3d@ 9s 5d		9s 6d@ 9s 9d	

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	10s —@10s 3d	10s 6d@11s 3d
1875	11s 2d@11s 5d	11s 6d @12s —
1876	9s 3d@ 9s 5d	9s 6d@ 9s 9d

The Foreign Review.

LONDON, August 28th.—The *Mark Lane Express*, in its review of the corn trade, says: The weather during the pest week has been favorable for farmers. Harvesting is progressing satisfactorily, and the hulk of the grain crop has been secured. The wheat yield will be less than an average, and probably not larger than that of 1875. This result is disappointing. However, the quality is fine and the weight heavy. New barley is satisfactory. Several important country markets note an advance of 1 to 2 shillings for new English Wheat, while prices from abroad offer no msrgin to importers.

Freights and Charters.

Incressed activity, says the *Post*, has taken place in Wheat charters toward the latter part of the week, and numerous engsgements have been made. Low rates continue to rule, however, and concessions on the part of agents and owners have doubtless caused the free movement alluded to. Market quotations for spot tonnage are largely nominal et £2 10s@£2 15s. In view of the low rates which must inevitably follow the deadlock between the Grangers and the freight ring, many vessels will be taken to load guano and outside merchandise should favorable opportunities present themselves. At the present writing we have in port 62,579 tons of tounage engaged for Wheat, and 5,975 tons engaged for miscellaneous purposes. The list of disengeged tonnage foots up 36 510 tons. The engagements of the week have been ss follows: Ship "Bohemis," 1,600 tons, Wheat to Cork for orders, private. Br ship "Cormorant," 1,073, Wheat to Liverpool, prior to arrivsl, £3. Br ship "City of Ningpo," 986, wheat to Cork for orders, £2 18s 6d. Br ship "Mabel," 1 200, Wheat to Cork for orders, owners' account. Ship "Anna Camp," 1,252, Wheat to Cork for orders, or Liverpool, Duhlin, Bristol, or Havre direct, priorto arrival, £3 5s. Ship "Sterling," 1,731, Wheat to Liverpool, prior to arrival, £3 2s 6d. Ship "Baltic," 2,552, Wheat to Liverpool, owners' account. Br ship "Broderick Castle," 1,785, Wheat to Liverpool, prior to errival, £3 2s 6d. Br ship "Arizona," 1,288, Wheat to Liverpool, prior to arrival, private. Br ship "Nereus," 1,108, Wheat to Cork for orders, £2 17s 6d. Ger bark 'Henrietta," 847, Wheat to Cork for orders, prior to arrival, private. Ship "Comet," 1,157, Wheat to Cork, U. K., £2 15s; continent, £3. Br ship "Cartsburn," 1,312, Wheat to Liverpool, prior to arrival, £3 5s. Br ship "City of York," 1,195, Wheat to Cork from Portland, £3 10s. Br ship "Assaye," 1,281, Wheat to Liverpool, prior to arrival, £3 5s. Br ship "Warwick," 1,005, Wheat to Liverpool, prior to srrival, £3 2s 6d.

Chicago Grain Trade.

A dispatch from Chicego, dated Augnst 27th, says: The grain trsde has experienced a favorshle turn during the past six days. Prices have advanced consicerably, and firmness has characterized the dealings. The Wheat is all secured, and, with few exceptions, every section of the Northwesteru Ststes turns out Wheat of an excellent quality. Taken as a whole, the crop in the Wheat growing helt is probahly not a full average, but how much helow the average canuot be determined. Roceipts of Wheat for the week are 98,000 bushels; shipments, 140,000 bushels. The lowest price of the week was 88 ceuts, and the highest 92 cents; closed at 91⅛. Much confidence is shown in tbe market at present, and the demoralized condition during the recent decline has given way to a firmuess aud activity that argue favorahiy to prices. Corn has been weak and firm, hut closed at 43½ cents. Oats has heen much more active than ususl, and has advanced two to three cents in price, closing at 32 cents. A comparison of last year's prices with those given above sbow that at the same date a year ego grain was much higher, Wheat heing $1.16, Corn 65 cents and Oets 40 cents. Arguing from the standpoint of these figures, tbe hulls on 'Chenge declare that higher prices must come sooner or later, for they say there is no depression in trade which warrauts such shrinkage in prices, and no great surplus of those cereals.

New York Grain Trade.

A dispatch from New York city, dated August 26th, seys: The export movement has been comparatively light, there still beiug a scarcity of sound prime cereals. Wheat, suitsble for export, is about steady, but very dull; spring growths rauging from 90c to $1.20, and Winter from $1 to $1.30.

New York Wool Market.

NEW YORK, Aug. 26th.—There has been an active demand for Wool during all the week, hut business has been in a measure restricted, owing to the light supply of fine grades and tbe firmness of holders. Recent advances are still well maintsined. Sales for the week foot up: 319,000 lbs spriug California at 18½@26½c; 1,000 bales uew at 25c; 246,000 lbs Texas at 15@18c for Western and 17@25c for Eastern; 5,000 lbs Georgia, 25½c; 75,000 lbs X and XX Ohio Fleece, 40c; 40,000 lbs Michigan, 33½c; 5 000 do unwashed do, 20,000 do Essteru Texas, 15,000 do Western do, 60 bags black pulled, 86 do super lambs', 64 do No. 1, 84,000 lbs combing aud delaine Fleeces, 7,000 do nnmerchantable State do, 10,000 do medium do, 51 balcs Cordova, all on private terms.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

ARTICLES.	WEEK AUG. 9.	WEEK AUG. 16.	WEEK AUG. 23.	WEEK AUG. 30.
Flour, quarter sacks	153.061	46,352	35,278	42,993
Wheat, centals	261,400	272,236	272,434	305,541
Barley, centals	65,018	58,170	51,166	56,938
Beans, sacks	40	467	246	349
Corn, centals	3,001	1,227	1,659	4,143
Oats, centals	5,549	3,517	7,403	9,494
Potatoes, sacks	14,254	15,275	22,013	22,981
Onions, sacks	1,178	1,111	1,996	2,557
Wool, bales	2,360	2,619	3,205	2,935
Hops, bales	38	23	86	172
Hay, bales	2,691	1,671	3,563	2,619

Bags—The combination noted last week continues to influence the trade and 12¼c is noted as the inside price for standard hand-sewed. The range is 12¼@12½ with some holding for 12¾c. We give in another column an article reviewing tbe condition of the Bsg trade.

Barley—The receipts of Barley during the week have been very large; the southern coast having contributed largely. Besides the local trade there have been two ships cleared for export: the "Freeman Clarke," carrying 6,804 centals for New York, and the "British Duke," carrying 2,000 centals for England. The large amounts have, bowever, caused prices to tend toward the lower figures. We note sales: 700 sks choice Bay, $1, half silver; 400 do good Coast, 95c, silver; 1,800 do fair do, 92½c, silver; 770 do hright do, 92½c, half silver; 500 do fair do, 90c, silver; 100 ctls hright Coast Feed at 92½c, silver; 850 do old Brewing at $1.35; 800 do at $1.32½, half silver for hoth lots; 2,000 sks Coast 95c, half silver; 450 do fsir do, 92½c, and 200 do do, 90c all silver. It is reported that a large portion of that received this week has gone into storo, and will not be offered at present.

Beans—Beans are still in light receipt and prices nominal. The abundance of "green stuff" cuts off the call for heans, and there will probably be no life in the trade until the new crop comes in.

Corn—Corn is unchanged. We no'e seles: 200 sks good large white, $1.30 ₱ ctl, silver; 500 do yellow, $1.20 half do; 120 sks small round, $1.27½, half silver' 200 sks good White at $1.27½, half silver; 200 do choice do, $1.25, gold; 175 sks large White, $1.27½, half silver.

Dairy Produce—Fresh roll hutter is advanced in price. The trade is not remsrkably brisk, but the shrinkage in the supply is clearly appreciated. Cheese is unchanged.

Eggs—Eggs are rather firmer but prices are unchsnged.

Feed—Hay is in excess snd hard to sell. We note sales: 24 tons poor Wbeat, $6.75; 55 do ordinary do' $8.50; 45 do do, $8 50; 15 do, fair Barley, $8.50. Common grades are very dull. Choico Wheat is not very plentiful, and hrings $13 ₱ ton.

Fruit—The market is full of fine Grapes, which are selling at low prices. Peaches of the later kinds are still abundant. Plums are plenty. Apples and Pears are in good supply.

Fish—Fish are rather more ahundaut than last week.

Hops—New Hops are coming in, but we do not hear of any sales as yet. Emmet Wells reports the New York market, for the week ending August 18th, as follows: We have to report a quiet market, with prices uominal. A few hales of the new crop arrive here every morning and sell for from 30c to 35c. Advices from the country are of the same nature as last week. England and Continentsl reports are about the same as reported last week.

Oats—Oats are received as fast as required, and there is a wide range in price, from $1.40 per ctl for common to $1.90 for hsavy Surprise. We note the following sales: 400 sks good Bay Feed, 1.67½; 170 do Milling, $1.87½, hoth hall silver; 100 do Coast Feed, $1 60; 260 do do, $1.65 per ctl, both silver; 100 ctls good Feed, at $1.75 per ctl, half silver; 175 sks choice Feed, $1.75; 800 sks good Cosst at $1.65; 400 sks good Bay Feed, 1.67½@1.70; do Milling, $1.87½, half silver.

Onions—Receipts of Onions sre iucreasing. Prices are generally unchanged. We note a sale of 120 sks Yellow at 70c per ctl.

Potatoes—Quite a scene is visible some days on our produce streets, made by a gang of Chinamen heuling over sacks and potatoes aud covering the sacks with Celestial symhols. Quite au export trsdo is being done for China by these Chinese merchants. The steamer which will leave for Hong Kong, September 1st, will carry a shipment. Prices are generally quiet, though the tenden cy is dowuward, because of large receipts We note sales during the week of 3,500 sks Half Moon Bay at 87½@97½c per ctl. Auother large consignment of Cuffey's Coves on auother day sold at $1.05 @1.07½; 100 sks of Southern Red sold at 60c. Swoet Potatoes to-day are selling at $1.25 per ctl.

Poultry—Poultry is lower, as noted in our tahles helow.

Provisions—Fresh heef and Mutton sre abundant and of good quslity. Pork is much lower, a decided break having heen experienced last week, hut the demand continues brisk for packing. The supply is increasing. Smcked Beef has advanced to 12½@13c. Mess Beef has advauced $1 per harrel. Other articles of Pork aud Beef product are unchanged, hut the demand is strong.

Rye—Rye is still hold at $1.50 for some lots. We are iuformed thst nothing higher thau $1.40 is now attsinshle.

Vegetables—Vegetables are still geucrally abundant and cheap. Cantaloupes have advenced sherply and are worth to-day $1.25@$1.50 per dozen.

Wheat—Local rates are unchanged. We note ssles: 800 sks Superfine, $1.35@1.40 per ctl; 1,000 do Shipping, $1.50; 450 sks Shipping, $1.50; 750 do Milling, $1.57½; 4,000 sks shipping, $1 47½@1.50 per ctl; 1,500 do choice Milling, $1.55. A sale is reported to have been made in the interior of 40,000 ctls choice Shipping at $1.53½, delivered at Vallejo. 20,000 sks choice Shipping, $1.52½; 1,000 do choice Milling, $1.57½; 230 do fair do, $1.50; 3,500 sks Shipping, $1 50; 400 do Superfine, $1.37½; 450 do, for distillory purposes, $1.25; 1,300 ctls Shipping, $1.50; 330 do Superfine, $1.35; 320 do Smntty, $1.25 per ctl; 1,150 do Superfino Milling, $1.45.

Wool—Fall Wool is beginning to swell the receipts Sales are made chiefly at the range quoted last week. We note sales of 6,0 0 lbs free fall, 13@14c; 12,000 lbs free fsll, 13@15c; 150,000 lbs fall, various, 10@12½c; 3,000 lbs spring seedy Northern, 16c; 25,000 lbs seedy fall, 10½c; 8,000 lbs Oregou, private.

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by SUTRO & CO.]

SAN FRANCISCO, Aug. 30, 3 P. M.

LEGAL TENDERS in S. F., 11 A. M., 91¼ to 91¾. Silver, 5½@5¾.

GOLD in N. Y. 110@110⅛

GOLD BARS, 880 90. SILVER BARS, 11@2(per cent. discount.

EXCHANGE on N.Y., 50-100 per cent. prsmium for gold; on London bankers, 4⁸⁄₄; Commercial, 4⁹⁄₄; Paris, five france per dollar; Mexican dollars, 5 per cent. discount.

LONDON — Consols, 96⅛; Bonds, 102¼

QUICKSILVER in S. F., by the flask, per ₱. 45c.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., Aug. 30, 1876.

BEANS.

Bayo, ₱ ctl	4 00	@	4 50
Butter	1 90	@	2 25
Pea	1 92½	@	—
Pink	2 50	@	3 00
Sm'l whits	1 60	@	1 90
Lima	1 90	@	2 00

BROOM CORN.

Common, ₱ ₱	2	@	3
Choice, do	4	@	5

COTTON.

Cotton, ₱ ₱	15	@	18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per ₱	35	@	40
Point Reyes	40	@	42½
Pickle Roll	30	@	32½
Firkin	25	@	30
W'st'n Reserve	16	@	22½
New York	—	@	—

CHEESE.

Cheese, Cal., ₱ ₱	10	@	15
do Old	—	@	—
Eastern	12½	@	15

EGGS.

Cal. fresh ₱ doz	35	@	37½
Ducks'	—	@	35
Oregon	32	@	35
Eastern	21	@	—

FEED.

Bran, per ton	17 00	@	17 50
Corn Meal	28 00	@	29 00
Hay	7 00	@	13 00
Middlings	24 00	@	—
Oil cake meal	—	@	33 50
Straw, ₱ bale	55	@	60

FLOUR.

Extra ₱ bbl	5 00	@	5 50
Superfine	4 00	@	4 25
Graham, ₱ bbl	5 50	@	—

FRESH MEAT.

Best 1st quality ₱ ₱	6	@	7½
Second do	5	@	5¾
Third do	3½	@	4
Spring Lamb	5½	@	6
Mutton	3½	@	4
Pork, undressed	6	@	6⅞
do, dressed	9	@	9¼
Veal	5½	@	6
Milk Calves	3½	@	7

GRAIN, ETC.

Barley, feed ctl	80	@	1 00
do brewing	1 20	@	1 25
Chevalier	1 25	@	1 35
Corn, White	1 25	@	1 30
do Yellow	1 25	@	1 35
Oats	1 50	@	1 75
Milling	1 80	@	2 00
Rye	1 35	@	1 40
Wheat shipping	1 50	@	1 52½
do milling	1 55	@	1 60

HIDES.

Hides, dry	10	@	12½
do wet salted	6	@	6½

HONEY, ETC.

Beeswax, per lb	25	@	30
Honey in comb	10	@	12½
do Strained	6	@	8

HOPS.

Old crop	10	@	13

NUTS—Jobbing.

Alm'd e'h'd sh'l ₱ ₱	8	@	10
do, soft sh'l	18	@	20
Brazil do	14	@	16
Cal. Walnuts	12	@	14
Chile Walnuts	11	@	12½
Peanuts per lb	8	@	9
Filberts	15	@	16
Pecanuts	17	@	18

ONIONS.

Union City ctl	—	@	—
Stockton	50	@	— 75
New Red	50	@	—
Silver Skins	60	@	— 70

POTATOES.

Petaluma, ₱ ctl	—	@	—
Salt Lake	—	@	—
Humboldt	—	@	—
Half Moon Bay	80	@	1 07½
Early Rose new	75	@	—
Sweet	1 25	@	—

POULTRY & GAME.

Hens, per dz	7 50	@	8 50
Roosters	4 50	@	6 00
Broilers	3 00	@	4 00
Ducks, tame, dz	5 00	@	7 00
do Muscovy	8 00	@	9 00
do Canvas	—	@	8 00
Geese, per pair	2 00	@	2 50
Wild Gray dz	3 00	@	4 00
White	1 50	@	2 00
Turkeys, Live, ₱	15	@	20
do Dressed	20	@	22
Quail, per doz	—	@	—
Snipe, Eng., doz	—	@	—
Doves, per dozen	50	@	57
Rabbits	1 00	@	1 00
Hare, per doz	1 50	@	2 10

PROVISIONS.

Cal. Bacon, L'd, ₱	16	@	17
do Medium	15½	@	16
do Heavy	—	@	15½
Lard	14	@	16½
Cal. Smoked Beef	—	@	15
Eastern do	—	@	—
East'n Sbould's	—	@	12
Hams, Cal	15	@	15½
do Armour	—	@	16½
do Worster's	18½	@	19
do Dupee's	18½	@	19
do Davie Bros'	18½	@	19

SEEDS.

Alfalfa, Chile ₱	8	@	10
do California	11	@	12
Canary	10	@	12
Clover Red	—	@	22
do White	50	@	55
Cotton	6	@	10
Flaxeed	—	@	3¼
Hemp	12½	@	—
Italian Rye Grass	25	@	30
Perennial do	20	@	30
Millet	10	@	12
Muetard, white	3	@	3½
do. Brown	3	@	3½
Rape	7	@	9
Ky. Blue Grass	30	@	—
do 2d quality	29	@	—
Sweet V Grass	—	@	75
Orchard do	30	@	35
Red Top do	—	@	25
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	20	@	25
Timothy	10	@	13

TALLOW.

Crude, ₱ ₱	6	@	6¼
Refined	8¾	@	9

WOOL, ETC.

SPRING—

Seedy, ₱ ₱	9	@	12½
Choice long free	17	@	18
do Nortbern	19	@	20
do short	13	@	16½
Burry	10	@	14
Oregon	14	@	18
Fall Clip			.8@13

S. F. RETAIL MARKET RATES.

WEDNESDAY M., Aug. 30, 1876.

POULTRY, GAME.

Chickens	50	@	1 25
Eggs, Hens	—	@	50
do Ducks'	—	@	40
Turkeys, ₱ ₱	25	@	—
Ducks, each	1 00	@	—
Geese, wild, pair	—	@	—
Tame, ₱ pair	1 50	@	2 00
Snipe, ₱ doz	—	@	—
do English	—	@	3 00
Quail, per dozen	—	@	—
Prairie Ch'k e, pr	—	@	—
Hares, each	25	@	35
Rabbits, pair	37	@	—
Squirrels each	10	@	—
Hams, Cal. ₱ ₱	16	@	20

FISH, MEATS, ETC.

Flounder, ₱ ₱	30	@	—
Salmon, ₱ ₱	—	@	15
Smoksd	—	@	10
Cod Fish, ₱	—	@	—
Lake Big. Trout	—	@	—
Beef, tend, ₱ ₱	20	@	25
Corned, ₱ ₱	8	@	10
Smoked, ₱ ₱	—	@	15
Porter House St'k	20	@	25
Sirloin do	15	@	18
Round do	10	@	12
Pork, rib, etc., ₱	12½	@	15
Obops, do, ₱ ₱	15	@	20
Veal, ₱ ₱	12½	@	15
Cutlet, do	15	@	20
Mutton-chope, ₱	6	@	9
Leg Mutton, ₱ ₱	10	@	—
Lamb, ₱ ₱	12	@	15
Antelope	—	@	—
Tongues, beef	75	@	1 00
do, do, smoked	75	@	1 00
Tongue, pig, ₱	12½	@	—
Bacon, Cal., ₱ ₱	16	@	20

FRUITS, VEGETABLES.

Apples, pr lb	5	@	8
Pears, per lb	5	@	8
Apricots, ₱	5	@	8
Peaches, ₱	4	@	6
Plums	4	@	10
Pine Apples, each	50	@	75
Grapes	6	@	20
Bananae, ₱ doz	50	@	—
Muskmelons each	15	@	35
Watermelone	25	@	50
Blackberries	12	@	15
Cal. Walnuts, ₱	20	@	30
Cranberries, pr qt	—	@	20
do Eastern qt	—	@	25
Huckleberries	—	@	25
Strawberries, ₱	12	@	15
Raspberries, ₱	20	@	25
Gooseberries	—	@	—
Currants	4	@	5
Oberries, ₱ ₱	10	@	30
Nectarines	10	@	12
Pomegranates	—	@	—
Oranges, ₱ doz	50	@	25
Lemons	75	@	1 00
Limes, per doz	—	@	25
Figs, dried Cal	12½	@	15
Figs, Smyrna, ₱	25	@	35
Asparagus, ₱ ₱	6	@	8
Artichokes, doz	25	@	—
do Jerusalem	—	@	—
Beets, ₱ doz	20	@	25
Potatoes, ₱ ₱	2	@	3
Potatoes, sweet	8	@	10
Broccoli, each	10	@	15
Cauliflower	10	@	15
Green Peas ₱ ₱	4	@	6
Cabbage, per hd	10	@	—
Oyster Plant, bu	—	@	10
Carrots, ₱ doz	—	@	25
Celery, ₱ dz	75	@	1 00
Cress, ₱ doz bun	20	@	25
Onions	2	@	3
Turnips, ₱ doz bunches	—	@	25
Brussels Sprouts	—	@	—
Eschalots	—	@	35
Dried Herbs, doz	30	@	50
Garlic ₱ ₱	10	@	—
Green Corn, doz	20	@	50
Lettuce, ₱ doz	25	@	35
Mint, ₱ bunch	—	@	12½
Mushrooms, ₱ ₱	—	@	—
Horse radish, ₱ ₱	15	@	20
Okra, dried, ₱ ₱	—	@	—
Pumpkins, ₱ ₱	5	@	6
Parsnips, doz	—	@	25
Parsley	12½	@	—
Pickles, fresh, ₱ ₱	—	@	—
Radishes, doz	20	@	25
Sage	—	@	25
Summer Squash	3	@	5½
Marrowfat, do	5	@	—
Hubbard, do	—	@	—
Tomatoes ₱	4	@	8
Mangoes, ₱ doz	—	@	—
Spinage ₱ hskt	—	@	12
Rhuharb	4	@	6
Green Chilies	—	@	25

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., Aug. 30, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M	—	@	—
Tahiti, do	30 00	@	35 00
Cal. do	—	@	—
Limoe, Mexican, ₱ M	12 50	@	15 00
Malaga Lemone, ₱ bx	—	@	—
Cal. ₱ 100	2 00	@	2 50
do Sicily ₱ b'x	15 00	@	—
Bananas, ₱ bnch	1 50	@	2 50
Cocoanuts, ₱ 100	—	@	6 00
Pineapples, ₱ dz	—	@	—
Apples, ₱ box	50	@	1 25
do Choice	—	@	1 25
Apricots, ₱ ₱	—	@	—
Blackberries case	3 00	@	5 00
Cherries ₱ ₱	—	@	—
Plums lb	1	@	2½
Figs	4	@	5
Gooseberries	—	@	—
Huckleberries	—	@	—
Strawber's ₱ cs	5 00	@	8 00
Pomgranates	—	@	—
Raspberries	—	@	—
Currants, ₱ ce	—	@	—
Orsnberries bbl	13 00	@	14 00
Peaches, ₱ box	—	@	1 00
Crawford	40	@	80
Pears, ₱ bx	75	@	1 00
do Choice	1 00	@	1 25
Crab apples, ₱ ₱	2	@	3
Grapes ₱ box	25	@	50
Rose of Peru	40	@	85
Muscat	50	@	1 00

DRIED FRUIT.

Apples, ₱ ₱	—	@	10
Pears, ₱ ₱	—	@	—
Peaches, ₱ ₱	12	@	12½
Apricots, ₱ ₱	14	@	15
Prunes, ₱ ₱	11	@	12
Plitoo, do, ₱ ₱	17	@	22
Raisins, imported	3 25	@	3 75
Cal. Raisins	5	@	10
Black Figs, ₱ ₱	5	@	10
White, do	12½	@	15
Prunes	12½	@	17
Citron	28	@	30
Zante Currants	9	@	10

VEGETABLES.

Asparagus ₱ ₱	—	@	10
Beets ₱ ctl	—	@	75
Cabbage, ₱ 100 ₱	50	@	60
Carrots, ₱ 100 ₱	50	@	62½
Cauliflower, doz	50	@	62½
Celery, doz	50	@	—
Garlic, ₱ ₱	2	@	2½
Green Peas ₱ ₱	—	@	2¾
Green Corn ₱ doz	5	@	18
Sum'rSquash ₱ box	40	@	50
Marro'fat Sqush, tn	10	@	—
Artichokes, ₱ doz	—	@	—
String Beans, ₱ ₱	—	@	1½
Lima Beans	1	@	1¾
Parsnips	—	@	—
Shell Beans	1½	@	2
Peppers, green, hx	—	@	50
Okra	5	@	6
Cucumbers, ₱ box	—	@	50
Tomatoes, box	20	@	40
Egg Plant, box	—	@	1 00
Rhubarb box	—	@	1 75
Lettuce, doz	10	@	—
Turnips, pr ctl	50	@	62½
Watermelons doz	75	@	1 00
Canteloupes do	1 25	@	1 50

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., Aug. 30, 1876.

BAGS.

Eng. Stand Wht	12¼	@	12½
Neville & Co'e			
Hand Sewsd	12¼	@	12½
24x36	—	@	—
24x40	—	@	—
Mechine do 24x40	—	@	15½
" " 23x40	14½	@	—
" " 22x40	13	@	—
" " 22x36	11½	@	12
Flour Sacks ½e	9	@	11
" " ¼s	6	@	7
" " ⅛s	4½	@	5
Hessian 60-in	12¾	@	14½
do 45-in	10	@	—
do 40-in	8½	@	—
Wool Sacks, 3½ ₱ ₱	45	@	50
do 4"	50	@	52½
Stand. Gunniee	11½	@	12
eingle seam do	—	@	—
Bean Bags	7	@	8

CANNED GOODS.

Aest'd Pie Fruits in 2½ ₱ cans	2 75	@	3 50
do Table do	3 75	@	4 25
Jams & Jellies	4 25	@	—
Pickles ½ gl	—	@	3 50
Sardines, qr hxd	65	@	1 90
do hf hxes	3 00	@	—

COAL—Jobbing.

Australian, ₱ ton	8 75	@	9 00
Coos Bay	—	@	9 00
Bellingham Bay	—	@	9 00
Seattle	—	@	9 00
Cumberl'd	14 00	@	16 00
Mt. Diablo	5 75	@	7 75
Lshigb	—	@	22 00
Liverpool	10 00	@	11 00
Weet Hartley	—	@	14 00
Scotch	9 00	@	10 00
Scranton	13 00	@	16 00
Vancouver's Isl	10 50	@	12 00
Charcoal, ₱ sk	75	@	—
Coke, ₱ hhl	—	@	60

COFFEE.

Sandwich Island	—	@	21½
Costa Rica per ₱	22½	@	—
Gnatsmala	—	@	22½
Java	—	@	30
Manilla	—	@	21½
Ground in ce	25	@	—
Chicory	27	@	—

FISH.

Sso. Dry Cod, new	—	@	6½
caess	6	@	7½
do boneless	8½	@	10
Eastern Cod	8	@	8¼
Salmon in bbls	7 25	@	—
do ½ bbls	3 75	@	4 00
do 2 ₱ cans	2 00	@	—
do 1 ₱ cans	1 35	@	—
do Col. R. ½ b.	5 00	@	5 50
Pick. Cod, hbls	22 00	@	—
do ½ bbls	11 00	@	—
Mack'l, No. 1, ⅛ bls	11 00	@	—
Extra	—	@	12 00
" in kits	1 90	@	2 25
" Ex mess	3 50	@	4 00
" Ex mess, ½ bs	—	@	12 00
Pic'd Herr'g, hx	3 00	@	3 50
Bos. Sm'k'd Her'g	40	@	50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl	2 00	@	2 25
Cement, Rosendale, do	2 75	@	3 50
do Portland do	4 75	@	5 50
Plaster, Goldsn Gate Mills	3 00	@	3 25
Land Plaster, ₱ ton	10 00	@	12 50

MISCELLANEOUS.

Pulu	—	@	7½

NAILS.

Assortsd size, keg	3 75	@	4 00

OILS.

Pacific Glue Co			
Neat F't No. 1	1 00	@	90
Pure	—	@	—
Castor Oil, No. 1	—	@	95
Baker's A A	—	@	1 15
Cocoanut	—	@	60
Olive Plagniol	5 50	@	5 75
do Possel	4 75	@	5 00
Palm ₱	9	@	—
Linseed, raw	—	@	62½
do boiled	—	@	67½
China nut in os	65	@	—
Sperm, crude	1 60	@	1 65
do bleached	1 90	@	2 25
Coast Whales	47½	@	50
Polar, rsfined	—	@	50
Lard	—	@	1 20
Oleophine	—	@	28
Devoe's Bril't	25	@	27
Long Island	—	@	25
Eureka	26	@	27

Breeders' Directory.

Purchasers of Stock will find in this Directory the Names of some of the most reliable Breeders. Our Rates.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

A. MAILLIARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

EDWARD FRISBIE, on line of Cal. P. R. R., near Vallejo, Pure Bred Leicester Sheep For Sale.

GARNIER BROS., Encino Ranch, Los Angeles Cal., breeders of pure French, Spanish, and Saxon Merino Sheep. Price, from $25 to $50, each.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co. Cal., breeder of Pure-Blooded French Merino Sheep

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

T. A. WILSON, Graysou, Stanislaus county, Cal. Breeder and Importer of Spanish Merino Sheep.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

M. FALLON, Cor. Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Fowls for Hatching from Pure Bred Fowls.

GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

SWINE.

ALFRED PARKER, Bellota, San Joaquin Co., Cal., Breeder of Improved Berkshire Swine.

Live Stock Notices.



Pure Blooded French Merino Rams

And 100 Choice Young Ewes

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda county, Cal., near Niles Station, on the Western and Southern Pacific railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proven to be the heaviest shearers in the world.

☞NEW MILCH DURHAM COWS FOR SALE.



We respectfully call the attention of Farmers and Stock Raisers to our large and superior flock of Angora Goats. We have about 300 head of Pure Breed Angoras to select from, some of which are superior to any in America. Our prices are set according to the merits of the animal, and everything guaranteed to be as represented. Send for circular.

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FIVE HUNDRED CHOICE QUARTER AND HALF BLOOD COTSWOLD RAMS AND HIGH GRADE MERINOS. Address,

MORRIS & BELDEN, or **ADAM VROMAN,**
Stockton, Cal. Linden, Cal.

Thoroughbred Southdown Sheep,

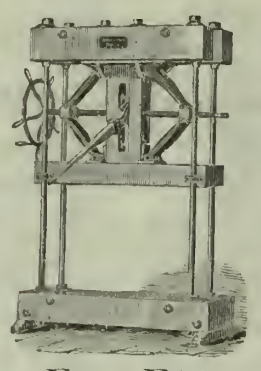
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A few Ewes, two to three years old, at $10 each. Several young Rams and Lamb Ewes at $8 each. Having just purchased 80 head I am over-crowded, and offer at these prices to reduce stock. Address,

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HOSE for Hydraulic Use.
CANVAS, All Numbers.
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Our business being exclusively Commission, we have no interests that will conflict with those of the producer

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For 1876,

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COMMENCING

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AND CLOSING

Saturday, - - - - - - Sept. 23d.

40,000 CASH

To be Distributed in Premiums.

The Exhibition will be divided into SEVEN DEPARTMENTS, and the

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To be Awarded to the most Meritorious Exhibition in each Department. Also,

Five Special Gold Medals,

Each of the value of $100, as per Premium List. Those desiring Premium Lists will please notify the Secretary.

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—AND—

Most Attractive Speed Display

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Applications for Stalls at the Park and Space at the Pavilion should be made to ROBERT BECK, Secretary, at once.

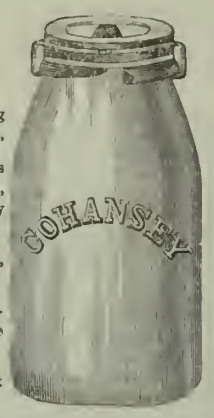
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FRUIT JARS.

FRUIT IN CONTACT WITH GLASS ONLY.



Elastic Pressure by Spring Clamps on Shoulder Joint.

The Screw Clamp turns freely on Cover and Inclines, and tightens the Jar quickly and is Easily Tested.

Easily opened and closed, without wrench or tool.

Every Jar being inspected, there is no trouble in using.

The Handsomest and Best Glass Lid Fruit Jar.

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SHEEP WASH,

$2 Per Gallon.

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WE OFFER A LARGE STOCK OF FINE PLANTS, AT VERY LOW RATES, RANGING FROM 25 Cts. to $1.00. ACCORDING TO SIZE.

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Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

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WORCESTERSHIRE SAUCE,

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In consequence of Spurious Imitations of Lea & Perrins' Sauce, which are calculated to deceive the Public, LEA & PERRINS have adopted A New Label, bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of Worcestershire Sauce, after this date, and without which none is genuine.

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Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

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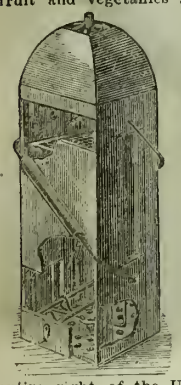
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A New Invention, although Thoroughly Tested, which Combines all the Improvements.

We warrant a complete success in drying all sorts of fruit and vegetables as thoroughly and more expeditiously than any other Machine, for less amount of fuel by 35 per cent., as we utilize all the waste heat which is lost by all other Machines.



Its simplicity of construction and its cheapness will put it in the hands of all who may want a Drier. We don't pretend to ask from $1,200 to $1,500 profit and royalty. We are willing that producers should make the profit and keep it. The Machine has been tested to our entire satisfaction, and met our most sanguine expectations. The fruit dried by our Drier was fully as good as that dried by any of the renowned Driers. We would say to all who contemplate putting up Machines, that we can make it a decided inducement for all such to give us a call, as we want to sell the entire right of the United States, State, County or Local, at such prices that the poor as well as the rich can use them. The capacity of the Machine will be in proportion to the size, ranging from 100 to 500 feet drying surface. This dryer was more fully illustrated and described in the RURAL PRESS of May 20th, 1876. Communications to T. F. BACHELOR, 622 Clay St., S. F., or to **J. W. CASSIDY**, Petaluma, Cal., will be thankfully received and promptly attended to.

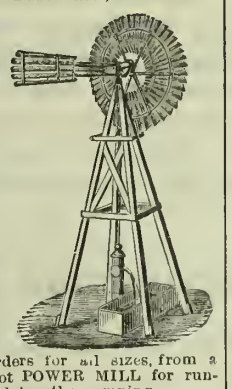
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(PERKINS' PATENT)

Self-Regulating, Farm Pumping, Railroad and Power

WINDMILLS,

Pumps & Fixtures,



Have been in use on the Pacific Coast in the towns and farming districts for over four years, and wherever they have been sold (and there are thousands of them out) they are doing their work as well as when put up. A careful perusal of our Circulars gives a fair representation of them and shows their simplicity.

We are prepared to fill orders for all sizes, from a PUMPING MILL to a 24-foot POWER MILL for running Machinery, as well as doing the pumping.

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Equally as commendable, has now been tested to entire satisfaction of all, and meets the demand for an article of that kind that has not been supplied on the Pacific Coast heretofore.

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MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

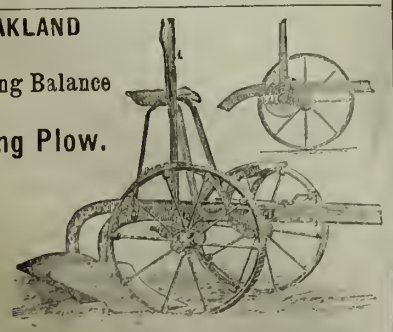
This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

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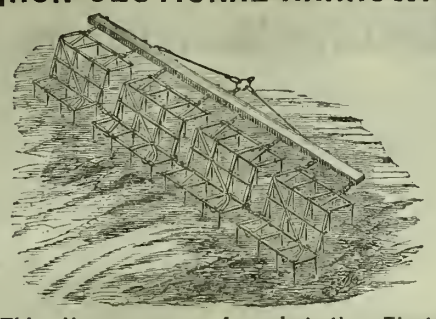
Spring Balance

Gang Plow.



Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pachoco, Cal Established in 1858. Send for Circular and Price list

IRON SECTIONAL HARROW.



This Harrow was Awarded the First Premium at the California State Fair in 1875.

The undersigned, having purchased the patent right of this Harrow for California, are now manufacturing them in Roseville, Placer County, and would call the attention of Farmers to the superior merits of this Harrow over all others now in use.

As its name indicates, it is made in sections of about three feet in width, each section having four bars, in which the teeth are inserted, and by connecting the sections with links, the Harrow is formed.

Should a Farmer require a Harrow upon his farm to do all kinds of work, he should purchase six sections, which would be suitable for four horses, and would cut 18 feet in width; by disconnecting two sections he will have a two or three-horse Harrow, cutting about 13 feet. One section alone is complete in itself, and suitable for garden work, with one horse. The Harrows are made of the best quality of iron, and with teeth warranted to be steel.

We give a few of the many reasons why we claim superiority for these Harrows over all others in use on this Coast:

First—By the lightness of draft, taking into consideration the amount of work it does.

Second—By working uneven or rolling ground just as well and as evenly as if it was entirely level.

Third—They are made of Iron and Steel, and therefore are not affected at all by sun or rain, or by heat and cold; they are always tight, and ready for use; they are also durable. A farmer purchasing one has a Harrow that will last a life time.

Fourth—The teeth being fastened with a nut and screw into the cross bars, should one break, another can be inserted in a moment. We are making three sizes, all being the same in width, but different in depth and weight only.

Prices, from $12.50 *to* $15.00 *per Section.*

All orders sent to

BREWSTER & CO.,

Roseville, Placer Co.,

Will be promptly attended to, and satisfaction guaranteed in all cases.

CAUTION.

It has come to our notice that certain parties are now making this Harrow in this State, and that several of them have been sent here from the East. Now this is to *caution* all persons against making, selling or buying them, so made and offered for sale, as we shall enforce our rights in relation to the matter, and would call the attention of all persons intringing upon our patent, to the *law* in regard to it.

BREWSTER & CO.,

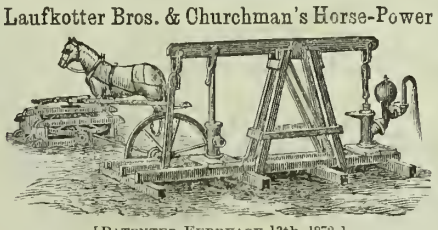
Roseville, July 15th, 1876.

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Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

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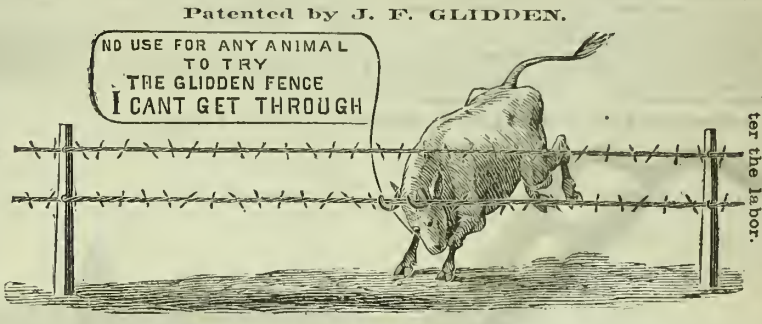
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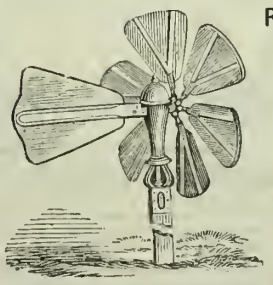
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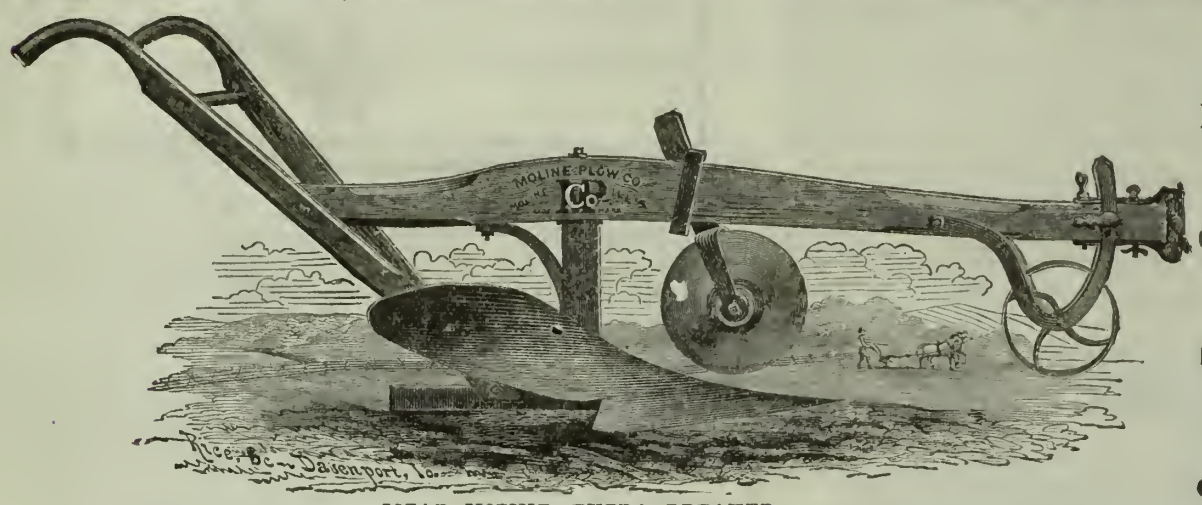
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Shafts to fit No. 0 Wagon, not Leathered, $15. Pole with Whiffletrees and Neckyoke for No. 0, $25. Brake for No. 0, $15.

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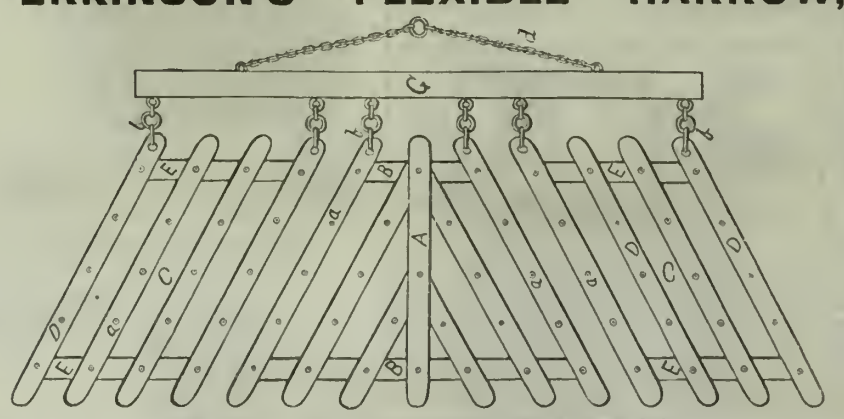
THANKS, ETC.—*Messrs. Dewey & Co.—Gent's:* I write to acknowledge the receipt of letters patent on my fruit drier, which came to hand to-day. Accept my thanks for the very satisfactory and successful manner in which this case has been handled.

Respectfully yours, HILAND G. HULBURD.

Placerville, July 20th, 1876.

Dewey & Co. {224 SANSOME ST} **Patent Agt's.**

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Invented by J. E. PERKINSON, of Santa Rosa, Cal.

Merits are claimed for this Harrow over all others in use. It gives good satisfaction in its work, and should be thoroughly tested by farmers. It has the build of durability. It can be made for $35 on this Coast.

This Harrow is made in three sections, which are connected to a draft bar by links and clevises. The bars are about four feet six inches long, and there are four bars in each of the two outside sections. The center section is filled up as seen in the engraving. The Harrow is made of good Eastern oak, with 63 steel teeth, and covers about 13 feet width of swath.

Reasons for the Superiority of this Harrow.

First—By the lightness of the draft, two horses, of ten hundred each, can draw it on loamy soil with ease.

Second—It is the best attachment in use. The draft bar is perfect. By using an equalizing chain to draw by, it keeps the Harrow in its right position and makes it easy to turn at a corner, as no wide spread Harrow can be turned with ease without those equalizers.

Third—Where other patentees have failed in setting the teeth so that each and every tooth will make a separate and distinct mark, this Harrow will do it on trial.

The Harrow is manufactured by the inventor, J. E. PERKINSON, at Santa Rosa, Cal., to whom applications for rights can be made.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

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PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, SEPTEMBER 9, 1876. [Number 11.

[Editorial Correspondence.]

The Centennial at Philadelphia.—No. 14.

Terraced upon a little eminence, near the center of the Centennial grounds, and commanding a delightful view of the same and a portion of the city and Schuylkill river, stands an elegant structure—a sort of Moorish palace, constructed after the style of the twelfth century, flanked upon either side with arches of glass, and glistening all over with that material and various colored brick and iron work. The location is quite romantic. A deep and thickly wooded ravine near by is spanned at a little distance by an ornamental bridge, 500 feet long, while still nearer, the same ravine is crossed by a single rail railroad track, across which runs, every five minutes, a novel two-story car. This structure is known as

Horticultural Hall,

And is reckoned as one of the five great main buildings of the Exposition. Although comparatively small in extent, many think it the most beautiful of all, and it will remain as a permanent ornament to Fairmount park. A very good idea of its general appearance may be formed from the view given in the accompanying illustration. The length of the building is 385 feet; its width, 190 feet, and its hight, 70 feet. It covers an area of about one and a half acres. The two main entrances are through imposing doorways, and are beautifully ornamented with tile and marble work. The central portion of the building consists of a large hall or conservatory, around which runs a corridor, also of Moorish construction, and some 20 feet high. A colossal terra cotta statue of Diana, the goddess of the woods and the hunt, guards the principal entrance. A magnificent fountain decorates the center, which, by the spray wafted from its falling jets, greatly modifies the overheated and sickening atmosphere rendered necessary to keep in a healthy condition the rare exotics which are gathered here from almost every tropical region of the globe. The angles of the main hall are adorned with smaller fountains, while many pieces of elegant and appropriate statuary, interspersed here and there among the gay flowers and rich shrubbery, adorn other portions of the hall. Here, in this fairy-like palace, Flora is enthroned and holds undisputed sway.

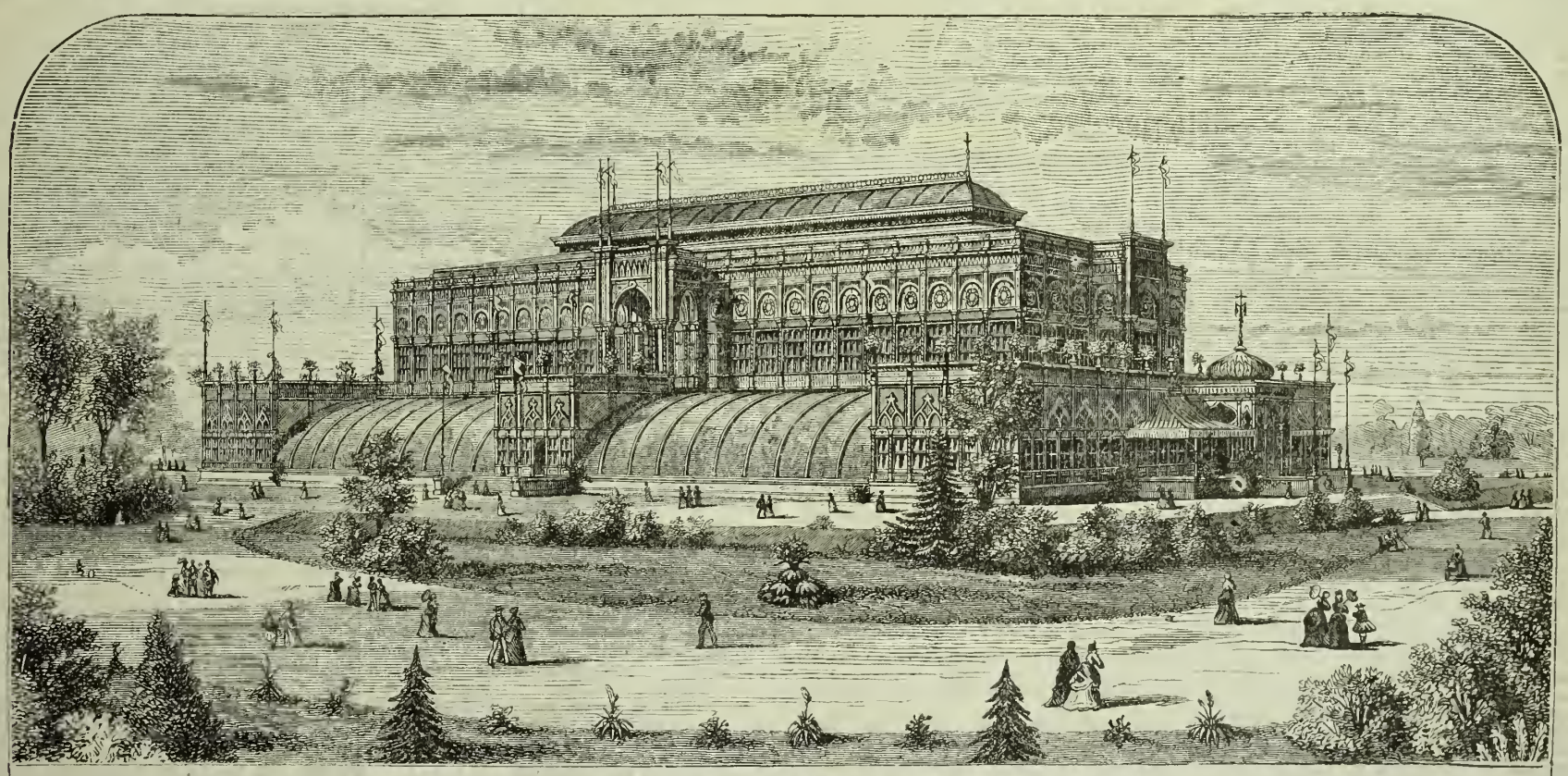
The grounds immediately surrounding and connected with horticultural hall are about 40 acres in extent, and are specially devoted to horticultural purposes. They are beautiful in topography, gently uneven, tastefully and artistically laid out, and divided into scores, if not hundreds, of little parterres, separated by asphaltum avenues and walks of greater or less width and length. These parterres are covered with an immense number and variety of flowers from bulbs, shrubs and seeds, judiciously relieved by borders and patches of living green. At one time there were here over 30,000 hyacinths in full bloom. Flowering shrubs are seen in great variety, spring blossoms without number, thousands of roses, beautiful and rare evergreens and trees and plants—such as may be grown in our summer atmosphere—from all parts of the world. Here England has been allotted 43,000 square feet of space; Germany, 10,000; Spain, 6,000; the Argentine Republic, 5,000; France, 3,800; and the Netherlands, 200 feet. The view of these flower-beds upon either side, looking down the broad walk from Belmont avenue—horticultural hall closing the vista—is said to be the finest one of the kind in the world.

Within this floral temple, and upon the surrounding grounds, the science of horticulture is illustrated in the following order and classification: Ornamental trees, shrubs and flowers, hot-houses, conservatories, graperies and their management, garden tools and accessories of gardening, landscape gardening, designing, construction and management.

The Interior of the Hall

Is a fairy palace indeed, the floral display in which it is difficult to describe. Nowhere else on this side of the Atlantic, can the visitor behold such a collection of the wonders of floriculture. The vestibule leading to the entrance is devoted to the exhibition of garden implements, such as pruning knives, spades, hoes, rakes, etc., all glistening in high polish. There is also here a fine collection of fancy woods and hanging baskets. On either side of the central hall are the forcing houses, which are well filled with plants that require special care and warmth previous to their being transplanted to the places where they are to be seen and studied as standard representatives of their kind.

Passing to the interior of the hall we behold rare exotics from the burning climes of Africa and South America, the twisted and thorny cacti from the plains of Lower California and Mexico, and stately palms and gigantic ferns from islands on the Pacific ocean. Prominent among the latter are the palm ferns from the gardens of Messrs. Miller & Sievers, of San Francisco. The broad fan palm, suggestive of summer heat, is also here, and the sago and guava plant, the date and the cocoa tree and the banana, with its cluster of fat and luscious fruit. Here, too, is the india rubber tree, with its thick, fleshy leaves, the tall stemmed mahogany and the camphor tree, with its sharply cut and abundant show of foliage. Then we have the Japan maple, with its crimson shad-



1776 HORTICULTURAL HALL. 1876

leaves, nor even a vestige of green about either tendril or flower. The bulb and its beautiful pendant flower must have secured its entire nourishment and growth and color from the dull decaying bark, from which, by some incomprehensible means, it has burst forth and matured without leaf or leaflet. This curious plant is from London. Quite prominent among the ferns, with their brown trunks and feathery leaves, is a weeping tree fern—a most magnificent variety of this interesting and, of late, popular family of plants. Its drooping leaves hang in graceful symmetry around its hidden dark brown stalks.

An Historical Plant.

Among the plants of historic interest, there is one—a sago palm—which formerly belonged to the great Revolutionary financier, Robert Morris; him through whose timely aid the Continental army was saved from dishandment or starvation, and from whose purse the impoverished treasury of the struggling colonists was replenished, and the great Centennial we celebrate made a possibility. This plant is not beautiful to look upon, but it has a history upon which, during this Centennial year, all delight to dwell. Its body is some eighteen inches thick, but only ten feet in hight, and its age is proclaimed, in all solemnity, to be from 125 to 130 years. It bears a silver shield upon which is inscribed: "Cycos Revoluta; owned by Robert Morris, before and during the Revolution. Presented by Jacob Hoffner."

There is also a date palm, originally from Bermuda, from whose juicy trunk, though only thirteen feet in hight, spring numerous branches. It first found its way to Mississippi, then became the property of William Raven, of Charleston. When South Carolina seceded, Raven sold out to a New Orleans gentleman and the tree found its way once more to the banks of the Mississippi. It was then fifty-four years old, and while it was in that city, the celebrate dlitigant, Mrs. Gaines, once saved her life from assassins by taking shelter behind its favoring trunk. Its frequent transplanting, migrations and vicissitudes, have earned for it quite a chapter in the history of the last half century of American horticulture.

In addition to the productions of nature, art has also contributed largely to the floral dis-

(Continued on Page 180.)

CORRESPONDENCE.

The Potato Blight.

EDITORS PRESS:—Several weeks since I made some statements in regard to the condition and prospects of the potato crop in the Pajaro valley, which from my own observstion and the information that has been furnished me, I now believe to be incorrect. I then stated thst the potato blight, or rot, which affected some localities already, did not exist on lands known as "sediment" land—that is, lands formed by and snbject to the overflow of the Pajaro river and other stresms traversing this valley.

I have taken pains to inform myself npon this snbject, and I am convinced that out of the 1,200 to 1,500 acres growing in the valley, that there is scarcely an acre which is not sffected more or less by the potato rot, and from the present stage of the disease it is estimated that not half a crop will be realized. If the disease should not be stayed by some unknown cause the yield will fall far ehort of even this estimate. This diesase of the potato, as Dr. Anderson informs me, is a fungue, the seeds of which exist iu the tuber before planting, and which are developed in the new growth by eome nnknown conditione of soil or atmosphere, and that the disease may and does exist in the plant in a *latent* form nntil these eupposed conditione give it an active energy, which results in the destruction of the entire plant and reproduces itself in a future crop by the impregnation with its own virus of the growing potato; or, in other words, the seeds of the fungus already existing iu the tuber, the favorable conditions concurring, they germinate and eend forth their gossamer, thread-like growth more or less rapidly, until the whole plant is reached, appropriated and ite destruction completed.

There is something in the condition of this "sediment" land which *delays* this disease but does not escape it. Continued moisture has been supposed by some to be the reason why potatoes on sediment land do not show disease as eoon as on other land, these lande being much moister and the potato continuing green and apparently thrifty after other fielde are dry and dead. But now theee lands are indicating as much disease as any other, and justify the statements I have above made about the coming crop. I have been greatly assisted iu my inquiries by Mr. B. De Hart, R. Gallagher, P. Cox, Mr. Pierce and others. These gentlemen are intelligent farmers, and some of them large growers of the potato, and take a great intereet in the discussion of this snbject. Mr. De Hart, who ie an old correspondent of years, hospitably entertained me, took me to his fields, showed me the various phases of the potato disease in his own crope and gave me the results of his own observations upon the subject. He is a successful experimenter in poultry and can ehow by facts and figures the wonderful profite of this business intelligently conducted. The bean crop is also, in this valley, a partial failnre. There is not probably half the acreage usually plantcd, and what is planted will not produce much more than half a crop.

Too Much Water.

It is an undoubted fact that this year of abnndant water, which has been productive in all other parts of the State of such grand and beneficent reeults, in all agricultnral interests has been in this unequaled valley almost a failure. The water, so necessary elsewhere, has been here, where there is always an ahnndance of moisture, an excess which has vitiated every channel of healthful production, and will diminish by a large amount the nsnal aggregate of production of this part of the State. C. N. W.

Watsouville, August 29, 1876.

Things Worth Knowing.

Keep tea in a close chest or canister.

Keep coffee by itself, ae its odor affects other articles.

Keep bread and cake in a tin box or stone jar.

Cranberriee will keep all winter in a firkin of water in a cellar.

Orangee and lemons keep best wrapped in soft paper, and if poseible laid in a drawer.

Scalod herrings should be fat fish, free from scales, and when smoked be of a bright golden color. No. 1 herrings are generally small and poor fieh.

Salt—Ashton's, Marshall's and other Liverpool brands come in bags, 224 pounds; New York State in barrels and bags, 240 and 280 ponnds; casce of table salt contain 60 boxes, abont 2 ponnde each. Salt also comes in small packets, put up in sacks, three sizes: 25, 10 pound packets; 40, 6 pounds and 80, 3 pounds.

Guupowder is a heavy tea of a dark green hue, and the leaves rolled in hard balls.

Twankaye are known by the large, yellowish, badly rolled leaves and strong odor. The infnsion is a deep yellow, and of clear, sharp taste.

Mackerel comee in barrols, half-barrels, quarter-barrels and kits, containing, full weight, respectively, 200, 100, 50 and 20 pounds.

HORTICULTURE.

Our Fruit Crop and Where it is Going To.

EDITORS PRESS:—On yesterday morning, feeling rather indisposed to anything requiring much physical effort, I wrote the above caption for a text, and started out to hunt up items for my disconrse; and, as might reasonably be expected when fruit was the subject, turned my face toward San Jose. Not that there has been any diversity of opinion in regard to our Centennial fruit crop being immense and unprecedented. There has been no doubt or anxiety as to that fact for some months past. The only question before the people has beeu, "what shall we do with it?"

Being just in the midst of the season of tree fruits, and knowing that for several weeks there had been grest activity in every department of the work of saving the crop, I wished for eome definite facts as to the progress of the work, and as to whether most of the crop would be profitably disposed of.

I had made but small progrese in the pnrsnit of knowledge in this direction before my attention wae nnexpectedly diverted from the regular avennes of the business to one of a more special character, by meeting in the streets Mr J. D. Blanchar, of San Francisco, Preeident of the California Farmers' Mntual Insurance Association, busy as a bee, as he always is at something, not filling out policies or talking insurance this time, but in superintending the loading of the

Cal fornia Centennial Fruit Car

With samples of our fruit for the grand pomological feast to be held at California hall, Philadelphia, on September the ninth.

From seeing so many specimens of fine fruit coming from all directions, ueatly packed in light and nniform sized crates, and meeting so many of our euterprising fruit growers at the depot, with liberal and beautiful contributione from their orchards, so enlisted my feelings in the same pleaeant hueinese that the balance ol the day wae devoted to the same object. Indeed, I was snddenly seized with such a desire to be myeelf represented in the enterprise that I drove all the way home for something to send to the exposition.

Wishing to make a severe little test of sending ripe frnit to the East by the "patent Blower refrigerator," I filled one side of the small crate furnished me with mellow, ripe Bartlett pears, and the other side I filled with hard but ripe fruit of the same kind, just picked from the tree. And wishing to learn just in what condition this little special contribution would come to hand in Philadelphia, I took the liberty of directing my label card as follows: "One crate Bartlett pears, from G. W. M., Santa Clara, Cal., Aug. 28th, 1876. To the special care of W. B Ewer, of the PACIFIC RURAL PRESS, Centeunial Expoeition, Philadelphia." I hope this little package of pears many come into Mr. Ewer's hands, that he may note in what condition they may be received.

The specimene sent into the car were of choice samples of apples, pears, plums, prnnes, grapes and nnts. In addition to the coutributors mentioned in last week's RURAL were Mr. Hill, Mr. Tarlton and others.

Having dispoeed of the Centennial fruit car and the samplee that go in it, I returned to the regular avenues of trade for the desired items. At the factory of the

San Jose Fruit Packing Company

I found a perfect hive of busy workers in all the different departments of the business of converting the contents of loads and loads of fruit boxes of different kinds to the huge piles and pyramids of neat and attractively labeled goods in their warchouse. This compsny employ about 200 hands, mostly white women, during the working season, paying out large amounts of coiu weekly for labor and the purchase of fruit. They intend this season packing at least half a million of cans, to be sold mostly onteide of our State. That is where eome of our fruit ie going.

The San Jose Alden Company,

C. T. Settle, manager, is also in full operation, running day and night, nsiug 4,000 pounds of fruit every 24 hours. They are now running on prunes, and making, as it seems to me, as fine an article of goods as can be made anywhere or by any proceas of curiug. Mr. Settle showed me a box of their prnnes which had been left over in the warehouse unopened for two years, which, when now opened, looked almost as bright and perfect as when first put up.

There are several other smaller drying establishments in San Jose. Mr. Taylor is running two of hie Champion driers, and an Italian company another patented drier, the name of which I did uot learn, which works up 1,000 pounde of fruit every 24 hours.

Fruit Shippers.

From those engaged in canning and drying I went to look after our shippers, to learn what they were doing in fruit this year. I had the pleasure of meeting Mr. John Britton at his place of business near the railroad depot, from whom I received much valnable information in regard to this line of the businese. For several years Mr. Britton, in connection with Lusk & Co., of San Francisco, hae been extensively engaged in shipping frnit from this valley to the Esstern Stetes, as well as to San Francisco and other points. Mr. Britton was an experienced fruit dealer here before this arrsngement was entered into, and has had entire management and control of the bnsiness in this valley since he hss been associsted with the San Francisco firm.

The History of the Shipment of Fruit

To the East by this company forms an item of much interest to the fruit growers of the valley, as well as to those who may contemplate going into the business. Their first shipment to the Eastern States by the carload was made five years ago—the fruit season of 1872—consisting of four carloads. The next year they shipped 22 carloads, the next year 44, and last year they shipped 60 carloads; snd they calculate that this year their shipments will amount to 80 carloads.

Thus it will be seen that their business in this direction has gradually and rapidly increased from the first They have made shipments direct to Chicago, St. Louis, Milwsukee, New York, Boston, Philadelphia, Baltimore, Washingtou City, Cincinnati and other Eastern cities. Jnst at this time they are loading a car per day for the East; the day I called they were loading a car for Cincinnati with peare. Their shipmente at this time are largely composed of pears.

A large proportion of the fruit handled by this firm is bought on the tree by the orchard, and picked, hauled and packed by the purchasers. This gives employment to a great many hands and quite a number of teams. At this time they have abont 80 hands employed. They have bought thie year and are picking the fruit of 25 of the largest orchards in this valley, besides buying merchantable frnit by the box. Their packing house and yard presented a busy appearance. Expert Chinese packers were employed packing pears in light, neat boxes, each pear being wrapped in soft paper. The boxes were then placed in a press, the lids carefully preseed down and nailed, labeled and sent to the car close by. None bnt perfect frnit is packed, all that are small and imperfect are thrown aside.

In connection with this businees Mr. B. has a large box factory, which he estimates will turn out 100,000 boxes this year—one-half of which will he wanted for their own shipments.

It may be interesting to frnit men to know that shipmente of our frnit have been made by this firm to China, Japan, Mexico, Central America and to London. The last Australian eteamer carried 340 boxes of summer apples.

There is also another firm, Porter & Co., largely engaged in shipping frnit East, but from whom I have no definite information as to their operations.

Thus it will be seen that a very large portion of our best frnit is shipped as it comes from the tree to Eastern and foreign markets. A large number of our orchards are every year bought up by I alian dealers, whose shipments to San Francisco and other points are made mostly throngh their countrymen dealere.

And as to prices, although eome lines of fruit have ruled low, the amount realized for the crop is satisfactory. Those who sold by the orchard did so at good prices, and ae far as I can learn, the dealere are also doing well.

The eeason so far in this valley hae been peculiarly favorable for drying in the snn, and never before has any large crop beon so well saved as the present.

After having a good time generally among our fruit growers, enjoying their hospitalities and sampling their nice fruits until I conld hardly tell sweet from sour, witnessing the operations of the packers, the driere and the shippers, seeing and learning all I could of their operations, I came to the conclnsion that the present is not only the largest but the most profitable crop ever raised in this valley; that after affording profitable employment to a large number of people for several months in the various modes of saving it, more net coin will be realized from it to the producers than from any former crop. G. W. M.

Santa Clara, Aug. 29th, 1876.

Suggestion to Peach Growers.

EDITORS PRESE:—There was a time when, in certain parts of England, au apprentice's indentnre was not considered satisfactorily drawn up, unless it contained a proviso that the apprentice should not bo reqnired to dine off salmon more than thrice weekly.

That no such proviso is now needed let the export of the Oregon salmon cannories witness. No doubt the Oregon canner would now conaider that three dinners weekly off ealmon wonld amply satiate his taste for that dainty.

The fact is, Messrs. Editors, whatever is over abundant nauseates during the eeason of overabundance. Even "toujours perdrix" is wearisome though handled by a "chef de cnisine." Now I have no doubt that to the hands employed by Messrs. Brigge during the peach season, the mealy potato is far more of a delicacy than the luscious peach. Even in San Francisco, with peachee piled everywhere, the palate ceases to prize the peach, and, ae a consequence, the producer's price barely pays for the production.

My suggestion, then, is as follows: Poaches can be grown, ponnd for pound, at a lees cost than ealmon can be taken from the Columbia river. They can, I should think, be canned about as cheaply, and I am convinced that they would sell in the English market, when once known, at fully as hi h a price as the canned salmon.

I can never call to mind a time when, even in the hight of the season, peaches could be bought in London for less than two cents each, retail.

Ordinary frnit, snch as plnms, cherries, etc., hss long been shipped, bottled, from England to this State, but the snpply of peaches in the English markets always appeared to mo very limited, (and I nsed to walk through Coveni Garden, the chief London market, once or twice daily for some years.)

If any growers take my hint, let them put up only the best frnit in the best manner, sweetened for dessert. I honestly believe "there's millions in it." Who'll get them out?

EDWARD BERWICK.

Monterey, Cal.

BEES.

Honey Plants of Southern California.

J W. Sallee writes to the Anaheim *Gazette* the following on honey plants: You see here in thie little valley a variety of shrub or weed which we call "wild alfalfa." It is very full of bloom, a small yellow flower, and prodnces a great deal of the nicest honey. And this rough grease-wood bush—see what a pretty blossom it has! Bees don't work much on this and these other large flowers you soe, the cells being too deep. But this shrnb, with a bnnch of flowers on the ends of the twigs, of various colors, we call wild buckwheat; it produces a great deal of nice honey.

You see over this mesa a large field of white sage, just coming into bloom. This is our brag boney plant. We will secure a large amount of honey from this plant. It will remain in bloom for about seven or eight weeks All that white bloom you see on the sides of the hills is black sage bloom. It has been out about four weeks and will remain in bloom two or three weeks longer, and makes a qu dity of honey nearly as nice as the white sage. But at present the bees prefer the wild alfalfa.

You see all over the hills, and cepecially in these small valleys, thoee clumps of bushes. That is the snmac and will bloom in July, continuing for six or eight weeks. It secretes a large amount of honey, but of a red color. Bees gather honey probably more rapidly from that than from any other flower. Now take a general view of the hills and valleys; yon see, probably, more flowers than you ever beheld before at one view. If there were 100 hives of bees on every sqnare mile of land, I scarcely believe all the honey secreted by these flowers would be gathered. And to think of it all going to waste, just for the want of gathering! It is enough to make a man grow eloquent to stand here on the top of this hill and look at this beantiful mountain scenery—the healthiest on earth—all covered with beantiful flowers, stored with the delicioue nectar, and to thiuk that it all, or nearly all, goes to waste for the want of gathering, without any one, save a few isolated bee men, to enjoy and appreciate it! Why, sirs, we have the prettiest part of the country. You cannot turn your eyes in any direction but you behold a different scenery—not that monotonuous extension of level land of the valleys, but here a beautiful rolling hill, all covered with green grass; there, a rough mountain side, overgrown by rough mountain brush; yonder, a precipitous rough cliff of projecting rocks, each hill alternating with a lovely little valley, with its clear stream of running water. Now, this monntain country is good for nothing much bnt bee rsising. It is true, much of the land could be put to fruit and do ae well as the valley land, probably better; bnt, sire, there should be a bee man on every thousand acres at least, with bees enongh to gather thouaande of tons of honey, now going to waste; Many say: "Is the bee business not going to be run into the ground?" I answer, no! The honey producing district of California is only a narrow strip on the west side of the mountains of Southern California, extending from Santa Barbara county to the State line south. And compared with this State alone it is a very small portion; while compared with the whole United States it ie bnt a drop in the bucket.

Beekeeping in California.

Mr. J. P. Androws, who has gained good success with bees in San Luis Obispo connty, gives the *Tribune* the following points as the teachings of his experience: First, that all localities, with apparently equally rich bee pastures, are not eqnally good for bees; second, that immediately near the coast is not so good as a few miles back; third, that a diversity of treee and plants is necessary; fourth, that a rolling country with a plenty of white and live oaks, willows, sage, chemisal and clover is necessary for the best returns. During the dry season the bees gather honey-dew from the oaks and willows, and produce apparently as much honey as when nature is in holiday attire. Fifth, a running stream, or a spring of pure water, near the apiary, is desirable; and, sixth, that a sheltered locality, away from the coast winds, should be sought. With a few colonies of bees at his present home, in the suburbs of the city, where conditions are apparently ae favorable as possible, and food would seem abundant the year round, he finds, notwithstanding all these favorable appearings, that the bees do not do anything near so well as they did at his old home on the Arroyo.

The Vineyard.

Wine Making in Portugal.

The *Queenslander* is translating a treatise on wine making from the Portuguese of Visconde de Villa Major. We extract the following paragraphs on "Vintage Operations:"

A judicious wine grower, before commencing his vintage, will carefully consider the divers conditions essential to the ultimate success of his operations.

The first consideration is the state of the fruit; the second, the meteorological and climatological condition of the season; the third, the state of the buildings, presses, vats, and utensils requisite for the processes of manufacture. Any inattention to these points may originate grave and irremediable disorders in the wine which it is always necessary to avoid.

As regards the state of the fruit most fitted to produce good wine, all authorities are agreed that it should be properly ripe. But this is a general rule which in practice admits of liberal modifications.

Becham distinguishes two kinds of ripeness, viz., physiological and conventional ripeness. By the former is to be understood the condition of the grapes when the seeds are fully formed and fit for the reproduction of the plant. This condition of the fruit is unsuited to the production of certain wines—perhaps, indeed, of any wine, if the highest degree of perfection of which it is susceptible be desired. On the other hand, conventional ripeness depends upon the species of grape and the class of wine which is to be manufactured from them. And here we must draw a distinction between ripe and over-ripe grapes. A grape is ripe and fit to make good wine when its constituent principles which will form the must are in perfect equilibrium; that is to say, when the proportion of sugar in the fruit is at its maximum, while the latter has not yet lost its plumpness and freshness. A grape is over-ripe when it has parted with a portion of its normal aqueous juice and become sun-dried—a condition which produces an increased percentage of sugar in the must, and an accompanying modification of flavor in the fruit itself.

For the greater number of Portuguese wines, especially for good wines for general household purposes, ripe grapes are best. But it may be asked, "How are we to determine this point?" There are many ways.

The eye cannot be relied on solely, neither with colored nor with white grapes. The taste of those who are familiar with the different kinds of fruit, and who have had long practice, is trustworthy; but in this case an acquaintance with the flavor and relative sweetness of the different sorts at different stages of growth is necessary, as they present many individual peculiarities which must be duly appreciated. Again, in a ripe grape the stalk begins to wither and darken; the fruit detaches itself easily from the stalks, adhering only by the thread-like portion which serves to nourish it; the skin of the fruit is pellucid and has a certain softness; the sweetness is marked, and the juice is thick and sticky—resembling a concentrated solution.

Analytical assays offer the surest means of deciding the question whether or not the grapes are in a condition to yield the must best fitted for the production of good wine. Yet, simple as are these processes, they are not within the reach of every one. A determination of the relative proportions of sugar and acids in any particular must will give a very fair idea of the probable quality of the wine. Must containing a large proportion of sugar with a relatively small amount of acids will generally yield a fine sparkling wine. Of this class are the musts which contain over 25 per cent. of sugar and about 0.5 per cent. of acids, represented by the ordinary proto-hydrate of sulphuric acid.

When the equivalent of the acid approximates to one per cent., and the proportion of sugar is below 15 per cent., the yield will generally prove poor, tart and flat.

The Foothills for Grapes.

Evidence continues to be gathered that skill and industry can transform the dry and cheap lands of the foothills of the Sierras into profitable vineyards. From the *Foothill Tidings* we take an instance of successful effort:

S. R. Michael's Vineyard.

Proof of our position on the question of growing grapevines on these highest and dryest red hills without irrigation, if any additional proof is required, may be found just out beyond the end of Auburn street, on the snug farm of Mr. S. R. Michaels. Mr. Michaels has 80 acres of land, lying just beyond Little Wolf creek, upon the back side of which is a high, round, red hill, which proved poor property as a grain field and so he concluded to plant it out to vines. Last year he raised his plants, from cuttings, in the usual way, by putting them out in nursery rows and watering them regularly. This year he had his ground prepared in March, but owing to a press of other work did not get them set out until late in April, finishing up in May, after the leaves were out on the young vines. He was very particular in planting, to get his rows straight and have his work ship-shape, as one should in a long-lived plantation like a vineyard, and having no help but a small boy it took a longer time than he expected, and as there was no way of getting a particle of water to them he looked rather blue for some time, expecting a failure. This week, however, we found Mr. Michaels busy preparing ground for an extension of this vineyard, to be put out next spring, and were assured by him that not over 100 out of the 3,000 planted this year had failed. Coming through them before seeing him we had not placed the percentage of loss as high as that, but even this is low as compared with what has been considered the best vineyard land of the State. Mr. Michaels' vines are mainly of the Muscat of Alexandria, the best known raisin grape, but he also has a few varieties which are recommended as extra for wine, as the Riesling, Zinfindel, etc., also the Flame Tokay—the best shipping grape known, the best looking and withal a good table variety. We would here repeat what we have many times said in effect to our foothill farmers: Put out vineyards on your lands that cannot be irrigated and are too poor and rough for other crops, and when there are a hundred acres of bearing vines here where there is one now, you will find a remunerative market for your grapes.

The Dairy.

Swiss and American Cheese Making.

A correspondent of the Utica *Herald* writes an interesting and suggestive article, noting points in the Swiss style of cheese making and drawing some valuable conclusions for American application. He writes:

Gruyere Cheese.

Gruyere cheese is the best brand of all the Swiss manufacture. Gruyere is a pretty village in the canton of Fribourg, and is located some 45 miles southwest of Emmenthal valley, and it is only there where the highly valued Gruyere cheese (*fromage de Gruyere*) is made Emmenthal valley produces another kind of cheese of finest taste and flavor, viz.: "Emmenthaler," known by this name throughout all Europe and shipped in different grades of quality. The manufacture of a first rate cheese consists chiefly in a course of chemical changes and modulations within the separated curd, which, approved by long conducted experiments, takes place in the most favorable manner only by the allowance of sufficient time to each foregoing process. Hence it is of no use to employ quick working machinery; it can by no means hasten a process depending entirely on chomical actions. Our Swiss manufacturers are quite well acquainted with all the implements used in American cheese making, but not one of them, whose fabric has a wide-spread renommee value, would abandon his old method in order to substitute new and complicated apparatus. The essentials of a complete process in cheese making are cleanlines , simplicity, and most possible time for curing.

The Swiss Curing Process.

The curing process required in Switzerland differs considerably in space of time in different localities. In Emmenthal valley this time ranges from five to six months; in Gruyere, Val de Pus, Unterwalden, from six to eight months; in my native valley (Toggenburg) in Appenzell, Glarus, Schwyz, from eight to 10, generally 12 months. The cheese made in Toggenburg, though very different in taste from that of Emmenthal and Gruyere, has a highly esteemed flavor and is preferred by English and French gourmands to that from any other part of Switzerland. Its color is rather white than yellow; and a reddish hue, as usual in American cheese, would spoil the whole business. At Gruyere there are natural cavities in the rocks surrounding that village. These cavities, though small, are used as curing rooms, having a natural temperature never changing beyond 44 to 48 deg. Fah. They are completely dry, having a perpetual gentle blast from different slits all over the walls and running out probably from other cavities inside the mountains. It is accounted to that peculiar formation of these natural curing rooms, that Gruyere cheese cannot be made elsewhere, though milk and method of cheese making are as good anywhere in Switzerland. Exactly the same method of curing cheese can be followed at Roquefort, depart. Aveyron, France (*fromage de Roquefort*). There are a number of such cavities, opening to the north (*les grottes au Delmat*), which cost in outfitting about 12,000 francs; and, though small and limited in space, they were sold in 1859 to the present proprietor for 215,000 francs! The curing time at Roquefort lasts from eight to 10 months, the grottos having an average temperature of 4 to 4.5 deg. R., or 41 to 42.5 deg. Fah.

Quality of Milk.

There is another point of consideration in comparing Swiss and American cheese; that is the quality of milk. There are a great many cheese-makers from Switzerland in this country; but not one of them have yet been successful in making an American cheese equal in quality to that he is accustomed to in Switzerland. They cannot accomplish it because there is not the same quality of milk, and they cannot get the same quality of milk because our cattle get not so good a fodder and not so careful a keeping as in Switzerland. Not even the poorest Swiss peasant would compel his cattle to linger about in rough and stormy weather, and under the rays of a burning sun without any shelter-ing. If at any time money is to be spared, this is carried on in housekeeping, but under no circumstances in the care of his beloved cattle. In dry seasons, when water is scarce, it will be carried sometimes a distance of eight or ten miles to supply the cattle. Those of my fellow citizens who have traveled in Switzerland, will gladly remember our beautiful, dark green meadows, alongside of numberless brooks and rivers and the sky-blue waters of some 60 smaller and larger lakes, feeding upon everlasting snow and ice of our central mountains. They know that short, fragrant hay and grass, almost stunning with its odor, and growing along the sides and tops of our lower Alps. They will remember that sweet, powerful milk of our Alpine regions, not "white as snow," but perfectly yellow with cream, coloring and flavoring matter, extracted from mountain herbs and prepared by the wonderful chemical apparatus of stout, fair-looking and finely coated cattle. It is not the "curd" only which forms a good cheese; it is a balsamo-etheric principle too, contained and dissolved in the milk, and coagulated and precipitated together with the curd. This principle, unknown in its constitution as it is, undergoes different changes during the "ripening" process of a cheese, and turns out at last that peculiar taste and flavor by which different kinds of cheese are to be distinguished and valued. This is a chemical process completely analogous to that taking place in curing young wine, and differs only in the products finally obtained.

There is no doubt that if our farmers and dairymen would improve their mode of raising and keeping cattle so as to reach as near as possible to that followed in Switzerland generally, they would also improve all the products derived from them. Swiss cattle would not endure a treatment like that so common in America. They would become very soon as rough and bristling in appearance as their Mohawk valley cousins; their meat, now so tender, savory and fine, would turn over in tough, leathern and powerless parchment, fit for Caribbeans but not for civilized people. Culture and care improves in every instance both man and beast. Resuming all that above explained, I should suggest to our farmers to abandon quick working and complicated apparatus; to allow a proper time for curing cheese; to erect dry and cool store rooms, well supplied with cool water beneath; to improve their hay crop by advanced grass culture and to treat their cattle more like helping hands to success than mere citrons to be pressed out and thrown off.

Sheep and Wool.

Sheep in Arizona.

California shepherds who have driven their flocks down into Arizona have met with varied experiences and many disasters, as has been recorded from time to time in our columns. We now find in the Arizona *Citizen* some items of a more hopeful character than the usual news from the Territory. The *Citizen* says:

During the week we have conversed with Gov. Safford, Charles McGary and Pedro Aguirre regarding the thousands of sheep belonging to them and under their care. Gov. Safford recently inspected his sheep in charge of Mr. George Allison on the Santa Cruz, and also those of Mr. Allison, and he says they look very thrifty, and fully believes they have passed through the necessary acclimatization and hereafter will be healthy, and says he has the highest hopes that they will prove very profitable.

Mr. Charles McGary and his brother have nearly 4,000 sheep on the Sonoita, and have had them in that section for nearly a year. During a snow-storm last winter their ewes dropped about 1,500 lambs, and, of course, many old and young perished; but Charles informed us this week that the whole band was doing well, and he is satisfied that with the care they will hereafter be able to give the sheep, they will retain their present good health. He is convinced they ought to be sheared in spring and fall.

Mr. Pedro Aguirre, for the past few months in charge of the fine sheep brought to Arizona by Larkin W. Carr, and now owned by Lord & Williams, came into town a few days ago and reports the sheep in good order and health and daily improving, and that he is not giving them any medicine, but merely taking care to move them about and give them common sense care.

But it will be remembered that all these sheep were more or less sick and many others died. Perhaps some had not proper care, but it is believed that fine California sheep must go through acclimatization, with more or less fatality, before a permanent healthy growth is secured. But all the men named think, with their experience, they would lose less sheep in another importation and bring them to a healthy condition much sooner; and they are all convinced that sheep will prosper in this country as well as any place they ever knew.

The Board of Supervisors of Santa Cruz county, at their meeting on the first Monday in August, changed the deer law so that hunters may kill deer from the 15th of August to the 1st of January, instead of (as heretofore) from the 1st of September to the 1st of January.

The Horse.

How to Break a Colt.

"Ephraim Sleek," in the *Willamette Farmer*, indulges in a little pleasant irony concerning abuses in horse training. He gives the following rules for breaking a colt: Get him in a large corral, throw a running noose on him, get on the outside and draw him up to a post, make the rope fast, poke him with sticks, spit on his nose, and yell like a Comanche. Never mind if he chokes and beats his head against the fence, he can't feel; he ought to have more sense, anyhow. Keep this up till he won't jump. Then get on the inside; take a blanket, and throw it under his heels, on his back or anywhere, to frighten him. Don't forget your yell; a good pair of lungs goes a great way toward taming a wild horse. Should you get hoarse, set your dogs on him. Tell your son to bring you some old tin cans; bang him with these till you think you have conquered him. Then scream out, "Whoa!" Go up to him and give him a good familiar slap on the back. If he gets frightened, and treads on your toes, curse like a sailor; pummel him with a fence rail, and tell him you'll learn him who he is fooling with. He'll understand. Go for him till you are completely exhausted; then sit down, and tell your son to bring your saddle, and the bridle with a Spanish bit. Don't forget to curse. Then get up, throw him down, and put on your sadole and bridle. Draw the cinch tight enough to cut him half in two; a new one is the best, as it tickles most. Put on a big pair of bell spurs; besides being a good thing to frighten your horse with, it gives you the appearance of a good horseman. Let him up; get on; and if he promises to go off quietly give him a good dig with the spurs—this will cause him to buck, and you will have an opportunity to show your family what a good rider you are. If he don't succeed in getting you off, run him about ten miles and back. Put him up, and don't feed or water him for a week. If he isn't broke by that time, give it up as a bad job.

State Fair Races.

We printed recently the speed programme arranged for the coming meeting of the State agricultural society. As a matter of news we now print the entries which have been made in the different classes:

September 18th.—Running for $300, $50 entrance added for three-year old fillies; bay filly by Coombs & Coglan, no name; bay filly of John Arnett, no name; bay filly Rosewood; bay filly Norfolk; bay filly Nellie McCarty; chestnut filly of Theo. Winters; bay filly of O. Hanlon named Omega. Same day running for the same purse for three-year olds; the horses are Modoc Chief, Lodi, Ward Beecher, Rosewood, Elizabeth Tilton, Mollie McCarty, Winter's chestnut filly, Pierce's Chromo and Omega.

September 19th.—Trotting for the 2:23 class and $1 200. The horses are May Howard, Defiance, Lou Whipple, Dan Voorhees, George Treat and Gold Note. Same day for the 2:40 trotters and a $500 purse. The horses are Sweet Briar, Bay Allen, Gladiator, Beautiful Bells, Flora, James Lick, Charles H., Kitty Clark, Lady Emma, Pilot, Index, Hayward Chief, Gus and Lady Cummings.

September 20th.—For the handicap races the entries are not closed.

September 21st.—Trot for the 2:36 class and $600. The horses are Sweet Briar, Gladiator, Tommy Gates, Tommy Morgan, Louderback, Alameda Maid, Flora, Hayward Chief, Gus, Lady Cummings, Index, Kittie Clark and Startle. The same day, a trot for $500, conditioned that Occident and St. Julien trot. The horses are May Howard, Defiance and Dan Voorbees. Same day, running race for $300. The horses are Daisy, Winnetta, Susie Brown, Mark Hopkins, Cottage Girl, Isaac, Jo Hamilton, Columbus, San Diego and Aureola.

September 22d.—Entries not closed.

September 23d.—Trotting for 2.26 class and $800, Oakland Maid and Gold Note. The barred horses are Lou Whipple, Professor, Jerome, Mary Davis, Governor Stanford and Prince Allen. Same day, trotting for $150. The horses are Sweet Briar, Tommy Gates, Long John, Venture, General Reno, Billy Hayward, John Chambers, Alameda Maid, Hayward Chief, Red Cross, Muggins, Lady Cummings and Startle. Same day, trotting for the 2:23 class and $250, two mile heats. The horses are May Howard, Defiance, Professor, Gold Note and Jerome.

The Various Kinds of Camphor.—Ordinary camphor comes from Japan or the island of Formosa, but there are various highly esteemed species of camphor obtained from Borneo and Sumatra. There is also another variety of medium quality produced by the *Blumea balsamifera*, a plant of the composite order, which grows in the east of Asia. The Chinese denote it by the name Ngai, and make use of it in medicine and the manufacture of ink. It produces harder and more brittle nuts than the laurel camphor. Like this latter, it is sublimed at an ordinary temperature, but less easily, while the Borneo camphor does not show any traces of sublimation even after several years. All camphors float in water, but when the air in the interstices is exhausted by an air-pump, Ngai and Bornco camphor sink to the bottom, while the laurel camphor swims. The specific gravity of laurel camphor is .995 that of Ngai 1.02, and that of Borneo 1.011. Laurel camphor melts at 335 deg. Fahr., Ngai at 599 deg., and Borneo at 405 deg. Laurel camphor, washed with hydrochloric acid and still moist, quickly changes to a colorless liquid. In the same circumstances Ngai and Borneo absorb the acid very slowly, and do not turn to a liquid till long after. Nitrio acid changes Borneo camphor into an oil, which, on the addition of water, deposits a substance identical aurel camphor. The same thing occurs with Ngai.—*The Laboratory.*

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. WEBSTER; Secretary, AMOS ADAMS.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

COPIES OF THE CONSTITUTION AND BY-LAWS of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

P. OF H.—Subscribers who pay fully one year ($4) in advance for the PACIFIC RURAL PRESS can receive the CALIFORNIA PATRON *free*, or other premiums. See our premium list in another column.

GRANGE DIRECTORY.—A full list of Subordinate Granges, Masters and Secretaries, of California and Nevada, is published as often as once a quarter in this department. See issue of July 8th for latest insertion.

International Co-operation.

EDITORS PRESS:—The following letter from Mr. Neale will soon appear in several Grange journals. It is the first letter received from our English friends since Worthy Master Jones' circular letter to our Order on International Co-operation was published. These English co-operators, believing as earnestly as we Patrons of Husbandry do in the most direct trade possible between producers and consumers, heartily wish our farmers success in all their efforts to bring about such direct trade.

They are our True Friends in England.

They have grain and cotton mills and tobacco factories, and people to help consume part of our product. Mr. Neale is, you know, general secretary of the co-operative congress of England, Scotland and Ireland, that is, of the United Kingdom. He thus represents all the interests of their 1,000 co-operative societies, with their 400,000 members. He is also secretary and legal adviser of the Mississippi Valley trading company, as first organized, and of its proposed substitute, the "Anglo-American co-operative trading company, limited." You can understand, then, how greatly he enjoys the confidence of our co-operative friends abroad, and how much weight can be rightly given to his words. Most of my negotiations, while in England and Scotland, were with Mr. Neale, as their representative. His letter shows what a welcome they give to the official circular of Worthy Master Jones. The friends of such direct trade need not be appalled by any apparent vastness of the proposed plan. The interest of each locality and State can be managed in a very simple, independent way through such a company. It looks vast, chiefly because it maps out the work for our whole Order, which is itself vast. More about this soon. J. W. A. W.

Greene Springs, Ala., Aug. 23d.

Mr. Neale's Letter.

MANCHESTER, ENG., Aug. 3d, 1876.—*My Dear Sir:*—I have been so very much occupied with different matters of a rather pressing nature since I received your welcome letter of the 14th ultimo, with the copy of the circular, signed by Judge Jones, accompanying it, that I have not been able before to-day to find time in which to answer it. It was very satisfactory to learn that our labors together in framing a plan by which the Patrons would be set free to form an alliance for co-operative trade with us in their own way, have been so favorably accepted in the United States and have borne there such good fruit as this circular. How much importance we attach to it you will see when you receive the *Co-operative News* of this week, where it is reprinted in full, with a short introductory, as the leading article.

You may be assured that, so far as I am concerned, I shall not depart from supporting this plan, which appears to me by far the best that can be adopted under the circumstances. I do not say that I think it theoretically the best possible. I should have preferred a local organization, distinguished only by differences of locality, consisting of companies open in each locality to all your citizens, as a means of entering into communication with the Anglo-American co-operative trading company, to the plan arranged by us, where an association of Patrons and one of non-Patrons may co-exist in the same locality. But we must deal with the practically possible when we descend from our paper Pegasuses into the press of actual life.

It is clear to me that in the present condition of affairs in the United States, such an attempt to enforce unity would have made the growth of the organizations to be thus united impossible. The Patrons must have freedom to unite among themselves only. All that can be asked of them is that they should do what the circular proposes and your letters and that of Judge Jones confirm to be your desire, namely: allow non-Patrons to unite freely also, in forming their associations, which may co-operate with those formed by the Patrons in the common work of establishing, through the Anglo-American co-operative trading company, a direct trade with Europe for the benefit of both.

I have little doubt, as I have said to Dr. Buchanan, but that in practice you will often unite to support warehouses, and even stores in common, from motives of economy; because one will be much cheaper than two. Your commercial unions, though distinct in their government, may thus in their action become to a great extent identified. But this must grow up of itself. It cannot be forced. I hope from the tone of Dr. Buchanan's last letter to me, as well as from what you tell me of your conversation with him and with Dr. Worrall, that they are disposed, also, to accept the inevitable, and work in their own groove, without insisting that the Patrons shall work in it also if they do not wish. Assuredly they have enough to do in spreading the ideas of co-operative union among other classes in the United States besides the Patrons, if they will apply themselves to the task, in which indirectly they will be of use to you. But as I have told Dr. Buchanan, I consider, and have always considered the commercial sinew, muscle and bone of the company to be the Patrons, because they have the command of the agricultural produce which we want in England. Therefore, they have something to send us against what we send them; while the other classes, at least the townsmen, have little to send but money to buy any goods they may want; and I do not believe that this import trade can thrive without being associated with the export trade, for which I look to the Patrons. Associated with that trade, the import trade for the supply of the artisan or other classes in towns may prosper and benefit the company, but not, I think, alone. * * * * *

With best wishes for the further development of the enterprise so well begun, believe me, yours truly,

E. VANSITTART NEALE.

To J. W. A. WRIGHT, Esq.

Snelling Grange.

EDITORS PRESS:—Since returning from the Centennial I have been reading up the numbers of the RURAL that were received when I was from home. I came upon an article headed, "Harvest Horrors," and believing that each one ought to give his mite to the general good, I herewith send you an item that I picked up at the Centennial, that will, if properly worked up, go a great way to mitigate the danger and expense of running machinery. It is called the "Brayton ready motor or hydro-carbon engine," which is a power eminently fitted for this coast. With properly constructed engines I do not see why it would not supersede almost all other power on the farm in threshing, grinding, plowing, reaping, pumping, or in fact in any work wherever a light, safe, simple and cheap motor is required. If the proprietors of that motor would send an agent to this coast to see what is wanted and design his engines to fit the requirements of the people here, I think it would be a good stroke of business.

About Grange matters, it seems to be almost impossible to get the members to attend the Grange. All through my travels East the same excuse is made that the farmers have no time to attend the Grange. They believe the Grange is a good thing if it could be carried out, but they have no time. Crops are so good that they will bring very little and the farmer has to save them all and plant more every year to get the usual amount of money. The more they plant the less money they get, and the less money they get the more they plant; and so they pile up ruin and disaster for themselves. If they would form a close organization and find out what it costs to produce an article and charge a fair profit, and not sell until it would bring it, the result would be good. But the middleman's sneer is too true: "There are too many of you; if you organize to do business you will desert it if any one should make you an offer that you could make a sixpence by." Now, we must get over this and stick by the Grange and to its organizations, and buy together and sell together, and work together and live together and for each other, and then the time will come when each will enjoy the fruit of his industry.

E. KELSEY, Sec'y Snelling Grange.

Merced Falls, Cal., Aug. 25th.

THE MATRONS' FAIR.—According to the *Courier* the fair, and not the brave, of Santa Cruz will have the fair. In its issue of September 1st, it says: At a meeting of Santa Cruz Grange, P. of H., last Saturday, the subject of holding a fair this year was discussed. A committee of five was finally appointed to investigate the feasibility of the undertaking and report at the next meeting, their decision to be binding. The male members of the committee were known to be averse to the proposition, whereupon the ladies excused the gentlemen from further duty in that behalf, and among themselves resolved to hold a social or some entertainment of that character, the proceeds of which will be added to the fund now on hand—$400—to be devoted to the purchase of grounds for a permanent society. The time and place of the proposed entertainment will be announced in due time.

JUVENILE GRANGERS.—We see by the Contra Costa *Gazette* that the matrons of Alhambra Grange are having a fine time with their young people in the Grange. The *Gazette* says: "On Saturday last the matrons of the Alhambra Grange gathered their younger boys and girls at the Grange hall for exercises in reading, recitations, playing and singing. Nearly all the little people contributed some exercise in one or more of the several lines and did remarkably well. These little festivals are to be held, in future, once a month, on a Saturday afternoon, for the pleasure and instruction of the children of the members of the Grange; and all friends, though not members of the Order, are cordially invited to them by the matrons under whose auspices they are conducted.

THE MARTINEZ WAREHOUSES FILLING UP.—The grain receipts at the Grangers' warehouses by this evening will aggregate about 1,000 tons. The floor room of the first warehouse is all occupied, and a number of lots have already gone into the other warehouse, which has just been completed. The grain yet to come in will be sufficient to fill both houses and leave some to be temporarily covered outside. Had the crops been as good as usual and earlier confidence established that the wharf and warehouses would be completed in season, the demand for storage would probably have obliged the Directors of the Association to enlarge the buildings, the present storage capacity of which, if fully utilized, is not far from four thousand tons.—*Contra Costa Gazette, Sept. 2d.*

ACTION AGAINST THISTLES.—The Kiwelletah Grange of Humboldt county gives notice that the "Thistle act" is now in force, and all those parties who heedlessly allow the Canada thistle to grow on their premises will be prosecuted to the full extent of the law.

Grange Notes in Ohio.

The following letter, written by Sister Nellie G. Babcock, G. K., of Temescal Grange, and read at a recent meeting of the Grange, contains notes of general interest:

DEAR GRANGE:—To tell you how much I have missed you would be impossible. Until the 12th of this month it has not been my privilege to meet with Brothers and Sisters in the Grange. But on that day, as I was trying to ward off a feeling that was not unlike home-sickness with that friend who is so dear to us all, viz: the RURAL PRESS, which came like a ray of California sunshine to light up my loneliness, when a gentleman came and invited me to attend a meeting of the County Grange, which had been fortunate enough to secure the services of Bro. Ellis, Master of the State Grange.

I found a very pleasant room and many pleasant faces to greet me, and many hands busy with work not quite unknown to me, that is, setting tables and making ready the feast of which we partook before organizing. I don't believe the Sisters of Clariden Grange are one whit behind their Sisters in Temescal Grange in cooking or the abundance of the good things provided.

While at feast, Bro. Ellis spoke very kindly of Bro. Webster, with whom he seemed to be quite well acquainted; he also spoke of the musical accomplishments of Sister Webster in terms of highest praise. After fully satisfying the cravings of the inner man, we adjourned to the hall, where we were called to work by Master Clapp, of the County Grange. After the regular work was done Master Ellis gave instructions in the unwritten work, which varied but very little from our own. Clariden Grange intended to have their hall dedicated, but Master Ellis advised them not to, as the dedicatory ceremony is so beautiful that he thought it would benefit the Order to have it public, so they decided to hold it on the first Friday in September.

The State Master spoke at length on the written work and the benefits and success achieved by the Order. A general invitation was extended to all the Granges in the county by Huntsburg Grange, to attend a picnic on the 18th of the month.

The Clariden Grange is very small, numbering but thirty, and meets with considerable opposition from people who are waging war on all secret societies. On the night of the 17th I attended a regular meeting of the Grange, which, though as small as any of ours, was interesting from the fact that they all seemed willing to work earnestly for the cause. By vote, the Clariden Grange send friendly greeting and good wishes to Temescal Grange, which I had the honor to represent. In the name of our Grange I thanked them, and told them that I thought our Secretary would send them a fitting reply. I wish that Bros. Dewey or Webster, or some one else that knows, would write them a letter telling them all about Granges in California, their membership, the average yield of corn, wheat, barley, oats and potatoes per acre. I am asked so many questions about such things that I make a desperate effort to remember all I read in the RURAL PRESS. Many seem to have a very strange idea of California, and appear to think the same lawless state of society prevails that did in '49.

Friday the 18th, I attended the picnic, as did many others, as testified to by the great crowd congregated in a beautiful wood, where a small platform for the speakers and music, (but not for dancing, as that is a tabooed thing here,) and numberless seats for the audience had been erected. Each Grange in the county was represented and all but one responded with a speech. All wore their sashes and had the Clariden brass band to escort each Grange in procession to the grounds. Altogether it was a success, and I trust it will be the means of adding many to the membership of our Order.

Hoping your patience may outlast the length of this letter, and wishing you every success and myself the pleasure of meeting with you before very many weeks have passed, for I had rather be G. K. in the Grange of Bagge than a wanderer on the face of the earth.

Fraternally yours,

N. G. BABCOCK, G. K.

Clariden, Ohio, August 20.

THE GRANGE IN ARIZONA.—About two months ago an application was received here for organizing a Grange in Arizona, there being quite a number of Patrons there who had joined our Order in other places, and appreciating its value were anxious to enjoy its benefits in their new homes. But Arizona being beyond our jurisdiction, the application was forwarded to the National Grange. At the July meeting of the National Executive Committee, a resolution was adopted attaching Arizona to the jurisdiction of California and Nevada, and Granges will soon be organized in that Territory. W. M., J. V. Webster has appointed Bro. Mooney Deputy for that district.

THE WHEAT MEETING.—We are requested to call attention again to the meeting of wheat growers which will be held at 909½ Market street, in this city, on Tuesday evening, September 12th. Golden Gate Grange will be pleased to meet a full concourse of the growers who desire to act together in the disposition of the crop.

EVERY State in the Union reports large numbers of grange co-operative stores wherein the patrons are learning the great benefits of union, and the strength of concentration.

The Pomona Degree.

EDITORS PRESS:—Perhaps a few remarks may not be unprofitable to the Order of P. of H. We consider our government, when carried out in detail in good faith, to be the best on earth. Our officers are chosen from time to time to fill each position required, and if they carry out and accomplish the desires of the people they are called good and faithful servants. But if they do not carry out the desires of the people they are speedily turned out and others put in their places. There are no titled lords who claim office by right of birth and position for life, to stand between the people and the legislature. Nor would they tolerate it for a single day. But the most simple form by which our business can be properly done is the very best, and there is no exception to this fair and honest rule. Then why not copy as nearly as may be in doing the business of our Order? Why not do away with all above the fourth degree or fifth at most and make the most humble member, being qualified, eligible to any position in the Order, and change as often as may be necessary.

This would make harmony and good will throughout the Order, and they could then move on in united force and strength and accomplish the great purposes for which they were organized. There is a decided feeling all over against the Pomona degree, which cannot be ignored, and every member of the Order ought to know that there are decided objections against it, some of which are: First, it may take many of the active members and their support from the Subordinate Grange, and they doing the business of the Subordinate Grange, for which they will expect pay, will make it too burdensome for the rest of the members. Besides, it takes the very business away from the members who need most to learn. The effects of this will be apathy and discouragement.

In the second place, it is putting a house of lords between the people and their executive body, without any hope of change. We have five Masters and their wives already; what could a small delegation of three do as against 10, and the number constantly increasing, and every one taken from the Grange is adding to its burdens.

The third objection is that a part of our people are totally opposed to introducing an aristocracy into the Order. They say of all places they expected equality in the Grange, and if the Pomona Degree is established they shall withdraw from the Order. Masonry was established at a time and place when it was necessary to conform to the customs and usages that then and there existed. But we can have no excuse for it here. Whoever sees Pomona Granges established over our State, will see the Grange decimated by withdrawals, and very few left to support them. How much better then to have the business done in a more simple way and at less expense. Suppose any particular measure is desired to be carried by a county or district, let each Grange instruct one or more of their Trustees to meet the others and confer together and decide what they think best and report to their Grange for final action, or the business may be done by delegates or committee, or the State Deputy might visit each Grange and get the desires or instructions of each Grange to carry to the State Grange. In this way the whole strength and influence of each Grange could be kept together, and the money that would be spent on a Pomona Grange might go for a library, and to build us a hall or storehouse. My desire is for the best good of the Order. C.

San Jose, August 28th, 1876.

TEMESCAL GRANGE.—A meeting for discussing appropriate subjects will be held at Live Oak hall, Oakland, Saturday, September 16th, at two o'clock P. M., which all persons interested are invited to attend and participate in. Mr. Bailey (who is alive on the subject) will tell what he knows about eucalyptus (gum) trees. An interesting time is anticipated.

In Memoriam.

CRESCENT GRANGE, No. 223, Half Moon Bay, Cal.

WHEREAS, For the first time since the organization of our Grange, it has pleased the Divine Master to remove from our midst one of our number, MARY MCDOUGAL, our much loved Ceres, to "that home above, not made with hands, eternal in the heavens,"

Resolved, That in the death of our sister this Grange has lost one of its most faithful and efficient members, and her family a true and faithful mother, and society a worthy member.

Resolved, That in respect to her memory the charter of our Grange be draped in mourning, and each member wear the usual badge of mourning for thirty days.

Resolved, That we tender our heartfelt sympathy to the bereaved husband and little children in their deep affliction.

Resolved, That these resolutions be spread upon the minutes of the Grange, and a copy be sent to the RURAL PRESS and *Times and Gazette* for publication.—[Committee: Mrs. M. H. Johnston, Mrs. J. Compton, R. H. Hatch.

FLORENCE GRANGE, No. 95, Los Angeles Co., Cal.

WHEREAS, Since we last met it has pleased the Great Ruler of the universe to remove from our midst our Worthy Master, J. R. TANSEY, it is

Resolved, That in the death of Brother TANSEY this Grange has lost a true and faithful Master, the community a valuable citizen, the church one of its brightest lights, his family a kind and considerate husband and father.

Resolved, That as a mark of esteem we wear the usual badge of mourning for 30 days, and that a copy of these resolutions be placed on the records of this Grange, and a copy be sent to the RURAL PRESS and relatives of the deceased.—[J. Russell, Mrs. J. F. Durrell, Committee; R. Ranney, Sec'y.

Agricultural Notes.

California.

KERN.

Large Importation of Cattle. — *Gazette*, Aug. 26: Last Sunday and Monday trains of cars arrived with cattle for Haggin & Carr The two trains brought 995 animals, most of which were steers, in good condition, considering the long journey they had taken. These animals were purchased in Oregon and driven to Mill City, in Nevada, at which point they were shipped to Sumner—a distance of more than 500 miles. Vaqueros were in readiness here when the train arrived, and, as soon as the animals were safely landed on terra firma, started with them for the Carr & Haggin ranch. The amount of freight paid on the number received by Mr. Kelly, the agent here, was $7,711.92. Carr & Haggin have another lot of Oregon cattle near Mill City, which will be shipped as soon as suitable preparations can be made on the ranch to receive them. They will be fattened and shipped to the San Francisco market. It seems hardly possible that the venture, under the circumstances, can be profitable; but Carr & Haggin are shrewd business men, and not likely to embark in an experiment on so grand a scale without counting the cost.

LOS ANGELES.

Broom Corn.—*Express*, Sept. 2: To-day we were shown a sample of broom corn from O. P. Parson's ranch, at Los Nietos, which is of a very superior quality. Mr. P. has a crop of 14 acres, grown expressly for the Los Angeles broom factory. He has 16 men now at work harvesting this crop. Eight are engaged in breaking and cutting, and eight in hauling, threshing and placing it on shelves in sheds built for the purpose. Broom corn cured in this manner will wear 50 per cent. better than if it were allowed to cure in the field and exposed to the dews and the sun. Mr. Woodward assures us that he will make a better broom this season than has ever been in the market on this coast. From a personal inspection of the Los Nietos sample we are prepared to say that it is unrivaled in our recollection for length and firmness of fiber. Brooms made from this staple will be a joy to the housewife, as they will do their work effectually, and she will not be obliged to renew them eternally, as is the case where she purchases imported brooms.

New Fair Grounds.—Santa Monica *Outlook*, Aug. 30: The citizens of Orange, Santa Ana, Newport and Tustin City held a meeting recently, and considered favorably the project of establishing fair grounds in that end of the county. A committee, consisting of the following named gentleman, have the matter in hand: Messrs. N. O. Stafford, L. J. Lockhart, J. W. Moesser, G. W. Freeman, Alex. Metcalf, Judge Evy and N. H. Mitchell, of Anaheim; A. B. Hayward and E. W. Squires, of Orange; J. R. Simonds, James McFadden and Mr. Cole, of Santa Ana; Mr. Lyman, of Westminster; J. C. Jasper, Garden Grove; and C. E. French, of San Joaquin. The following resolution was also adopted:

Resolved, That the purposes for which we seek to organize this association are: Exhibiting the evidences of success in and otherwise aiding the agricultural, horticultural, mechanical, stock raising and other industrial pursuits in Los Angeles county, and for developing the speed of horses.

MONTEREY.

Monterey Fair.—The first annual exhibition of the Monterey agricultural fair association (including the counties of Monterey, Santa Cruz, San Benito and San Luis Obispo) will be held at the grounds of the society, Salinas City, on the 11th, 12th, 13th and 14th of October, 1876. The society has spent $6,500 on the fair grounds, of which sum $3,000 is yet in arrears. Five thousand dollars additional is required, and it is proposed to raise it by a two-year loan to the society at 10 per cent. Two thousand five hundred dollars of the loan has been already subscribed. The premium list is liberal.

NAPA.

Vinicultural Society.—*Register*, Sept. 2: The State vinecultural society held a special meeting at the Palace hotel, in Napa, last Saturday. Among those present were Major Snyder, of Sonoma, the President; M. Eyre, Jr., of Napa, the Secretary, A. S. Edwards, L. Goss, Hon. William McP. Hill and A. Haraszthy, of Sonoma; A. W. Crabb, Oakville; J. Lewelling and C. Krug, St. Helena. Miss Willard, an artist of San Jose, who has executed some paintings of grapes for the society, was also present. The meeting was called to order at about half past eleven, by the President, and the minutes of the previous meeting read by the Secretary and approved by the society Mr. Eyre made a verbal report from the committeo on phylloxera. He stated that through the efforts of the committee a bill was passed through the Senate, but failed of passage through the Assembly, chiefly for want of time. He had received information from most of the grape growing sections of the State, and it appeared that the wet winter had served to prevent the spread of the depredations of the phylloxera in most of the counties. In several vineyards of Sonoma, however, (that of Mr. Craig among others) there had been extensive ravages by the phylloxera. He favored something being done early in the next session of the Legislature towards obtaining aid to the grape growers in the work of ridding the vineyards of the pest. The report was accepted. Mr. Eyre also made a verbal report from the committee on grape brandy and legislation concerning the vineyard interest, describing the action taken on behalf of the society in the measures which failed to pass the Senate at Washington.

SACRAMENTO.

Joint or Running Grass.—*Record-Union*, Sept. 2: There is a variety of grass generally known among farmers as joint or running grass, getting quite generally distributed along the Sacramento bottoms, and particularly on the lands adjoining the low tule bottoms, that is proving of great value as a forage grass for stock. Its color is rather a light green, or very much the color of timothy and red top. Its blade or leaf is rather short, but wide and thick, and the first season of its growth from the seed it seems to devote itself and all its strength to spreading over the ground. This it does by runners, which it throws out in every direction like the vine of the strawberry. At every joint of the runner, if it lie on damp and mellow soil, there comes out a number of small roots, which immediately penetrate the soil and help to feed and invigorate the plant. The second season it thickens up and makes an almost impenetrable sod, covering the surface with a great number of layers of runners and filling the soil with an innumerable number of strong and deep running roots. If not fed too short, and feeding does not seem to injure it, it throws standard stems or stalks to the hight of a foot or two feet, according to the strength of the soil it occupies, and on the top of each stalk form seed pods. These pods are generally two in number, coming from the main stem immediately at its top or terminus, and being about an inch long and at right angles to each other. Sometimes there are three pods on a stem, and then they look very much like the foot of a crow extended. This grass supplants the worthless salt grass when the latter is killed by cultivation, and makes almost as good a pasture for stock as alfalfa. Connected with alfalfa on the higher lands adjoining, it becomes very valuable, as it is a constant grower and makes a good change for stock with the clover. It can be propagated rapidly and cheaply, by cutting up and transplanting the joints, each of which, if severed from the main plant and covered with moist soil, becomes in a very short time a strong plant, throwing out its runners in every direction for yards around. We believe from what we have seen of this grass that it can be made to occupy the worthless tules on all the low lands bordering our river bottoms. The tule once killed out and this grass substituted, these lands will be the most valuable grazing lands in the State. Overflows do not injure it, as water seems to be as congenial to it as to the tule itself. When once in the soil it is as hard to extricate as alfalfa itself, but when once seeded, like alfalfa on higher lands, it is the most valuable use that the low lands can be put to.

Fruit Donors.—In addition to the names of those who gave fruit to load the Centennial car at San Jose, we find in the *Record-Union* the following as the donors at Sacramento: R. S. Lockett, James Rutter, W. Farrer, W. S. Manlove, J. Holland, Strong & Williamson and P. H. Murphy.

SANTA BARBARA.

Fine Yield.—Gnadalupe *Telegraph*, Aug. 26: The Chevalier barley of our friend Coiner has turned out very well this season—returning for a ton of seed sown 935 centals, or about 31 centals to the acre. From 410 acres of wheat and barley, Mr. Coiner has harvested 6,737 centals, or an average of 16 centals to the acre.

Enemies of the Grape.—O. N. Cadwell, in Santa Barbara *Press*, Aug. 26: Now, to show you that grape raising in Carpinteria has some drawbacks, I put in a bunch that the yellow-jackets have "gone through." Mr. Jacket is a small *bird* with a large appetite and an acute taste, which makes him a good judge of fine grapes; the consequence is he gets away with and spoils thousands of pounds of my best grapes. The mildew also gets a share, and sometimes a large one; so my loss, between the two, is more than is pleasant, to say the least. The quails, too—those nice little birds the sportsmen desire so much to protect—destroy and eat many of the grapes. Now if Mr. Sportsman was raising grapes instead of hunting them he would like well to have the protection on the other side. The squirrels like grapes, too, and we have several varieties of other *birds* that don't refuse a nip at the grapes to appease their hunger, and you may be sure they get hungry often enough for my benefit or any other person's who may be raising grapes in this vicinity.

Good Farming.—Lompoc *Record*, Aug. 26: A visit to the farms of Messrs. Carr and Anderson this week showed us what proper management of the soil has to do with producing crops that pay. Mr. Carr has 25 acres of beans so perfect that scarce one failed to sprout, and among which not a single weed is growing; in this same condition are 35 acres of potatoes. The bean crop at an average price will pay for the land without doubt. This place demonstrates what thorough cultivation will do. Mr. Anderson has a much more varied crop, having planted about equal portions of corn, beans, chicory and potatoes, all of which cumber the soil most completely. Both of these farmers have not undertaken to farm more land than they could farm judiciously, and will be rewarded by a return sufficient to pay up for their farms the first year. Twenty acres well tilled is worth 100 skimmed over, as is the condition of too much of our best valley lands. Crops don't produce themselves; the soil must first be placed in proper condition to receive the seed, and then be well planted and cared for if a profitable yield is to requite the labor expended.

SANTA CRUZ.

Dangerous Poisoning.—*Courier*, Sept. 1: A correspondent writes us complaining of the danger of indiscriminate poisoning of squirrels by means of strewing grain on the ground. In some sections he found "immense numbers of dead quail and other birds, from the effects of eating the poisoned wheat prepared for squirrels."

SAN JOAQUIN.

New Mill at Lodi.—Stockton *Independent*, Aug. 30: The new brick flouring mill at Lodi is nearly completed, so far, in fact, that it is thought that grinding can be commenced in a short time. It is to be one of the most complete mills in the country when finished, and is about 70x100 feet in size, three and a half stories high, with an engine room adjoining. It is provided with six run of stone, and the most improved machinery for making a first-class quality of flour. The walls of brick are substantially tied and braced together by a frame of wood inside the walls. The mill is being built and is owned by a stock company, with a capital stock of $50,000, divided into 20,000 shares of $25 each, the principal part of which is held by the farmers and residents of the village of Lodi. Fifteen thousand dollars have already been expended and a meeting is soon to be called for the purpose of levying an assessment to complete the work. We understand that the company has already received a proposition to buy the mill at cost from parties in San Francisco, and the sale will probably be made. The people of Lodi and vicinity will profit by the transaction, as they will have all the benefits of the mill and the market it will give for their surplus grain, without any cost to themselves.

Hay.—Farmers this year are troubled to know what to do with their hay. They have an unusual abundance of it, from the fact that the season last spring was too wet in some localities to allow them to plow or put in their wheat crop, when a heavy volunteer crop of hay afterward sprang up, and in other parts the rank growth and excessive dampness caused the wheat to rust, compelling them to cut it for hay. They are baling large quantities of it and stacking it up for the winter. We saw one handsome stack yesterday, which was built up of square bales to the hight of 20 feet or more, making a solid block of hay. On top of this boards had been placed projecting a few feet, and the stack built up to a cone with loose straw. The projecting eaves formed by the boards and straw will carry off the water falling on the stack, away from the sides, like the roof of a house. The care displayed in stacking the hay indicates commendable thrift.

Volunteer Crop.—A farmer living a few miles from the city was compelled to desist from plowing his land last spring after having a few acres plowed, by heavy rains. He has reason now to be thankful for the interference of the elements, as he has harvested about 40 bushels of good wheat to the acre on that portion that was not plowed, from the volunteer crop. The fact would indicate a remarkable waste in the previous year's crop, as the seed producing the large volunteer yield must have been shelled out by the wind or in the process of harvesting.

SAN LUIS OBISPO.

Threshing and Crop Figures.—*Tribune*, Sept. 2: On Saturday, August 26th, the Barnebergs threshed, with their steam thresher, wood burner, for Mr. Charles Rowland, on the Osos, 1,459 sacks of barley, and set twice during the day. The grain yielded at the rate of 80 bushels to the acre. On another day they threshed 1,200 sacks for Mr. J. C. Gibson, who is likewise a resident on the Osos. Mr. Gibson raised 4,000 sacks of barley, 2,800 bushels of wheat, and 600 sacks of flaxseed. The flaxseed averages 120 pounds to the sack, making 72,000 pounds, which is contracted at $3.25 per cental. This was grown upon 75 acres of land, being equivalent to 950 pounds, or $30.87½ per acre. A portion of their wheat has been sold in San Luis, for $1.35 per cental, which gives the cash value per acre $28.28, being $2.29½ per acre less than the flaxseed. We should have stated that the wheat turned out 35 bushels to the acre. When the extra cost of threshing is taken into account, the wheat and flaxseed are reduced to about a par. The barley is better than either. Calling the price 75 cents per 100 pounds, at 80 bushels to the acre we get $33.60, which is $2.72½ more than our flaxseed, and $5.32 over that of the wheat. With prices like those of last year, the country would be flooded with money; but, as it is, farmers clear a handsome profit, and that is all.

SONOMA.

The Fair.—Petaluma *Argus*, Sept. 1: Our tenth annual fair will commence five weeks from next Monday, three weeks after the commencement of the State fair. Every indication at present is favorable to a splendid exhibition. The secretary of the society informs us that much more space in the Pavilion and stock grounds has been spoken for than in any previous year, this long before the beginning of the fair, and it is not unlikely that an enlargement will be necessary.

Another Fruit Drier.—*Democrat*, Sept. 2: Mr. O. Sowers, near Sebastopol, has one of the Harris fruit driers, made at Petaluma, and he informs us that it works admirably. It dries by heat and steam. The one used by Mr. Sowers is of the smallest size and cost only $80. It will dry apples in two hours, and dries about 100 pounds of plums per day. The cost of these driers is from $80 to $200. We look upon fruit drying as important to our people and are always glad to learn of a successful drier, especially one cheap enough for small orchardists to buy.

A New Wine Company.—The articles of incorporation of the Santa Rosa wine company were filed at Sacramento on the 24th instant. The purposes of this corporation are for the manufacture of wine, distilling of brandies, and the making of cooperage. The place of business is in this city. The number of its directors is five—as follows: W. L. Knapp, Santa Rosa township; H. W. Byington, Chas. W. Frost, Jno. F. Boyce, James A. Peugh, of this city. The amount of capital stock is $25,000, and is divided into 100 shares. The amount of stock already subscribed is $7,325. We are requested to state that a meeting of the trustees will be held at the Occidental hotel on next Wednesday, the 30th instant, at 1 o'clock, for the purpose of electing officers for the ensuing term. A site has already been selected in Block 6, of Boyce's addition to the city of Santa Rosa, opposite De Turk's wine house. The building to be erected will be a substantial one, 100 feet square. Work on the same has been commenced to-day. The directors of this enterprise are men of well known business experience, and cannot fail to make it a permanent manufacturing feature of Santa Rosa.

This Year's Grain.—*Russian River Flag*, Aug. 31: The yield of wheat in this section, as well as generally over the State, has fallen short of expectations. The cause of this falling off is not definitely understood, but is probably owing to a lack of the usual moisture in the air. The average yield of corn will not come up to expectations, probably owing to the extreme length and severity of the "heated term." That on the heavy soil is not affected, but much of the light soil corn has failed.

More Fine Stock.—Charles Alexander returned from the Centennial last Friday, bringing with him two Cotswold sheep of pure breed, purchased in Chester county, Pennsylvania. One of them is a fine young ram, five months old. One specimen of wool which he brought with him measured 22 inches, and another 15 inches in length. The former was from a Lincolnshire sheep, said to be the largest breed in the world; he saw many of them, but as he is engaged in Cotswolds, did not bring any along. He thinks they would, however, be a good breed to introduce here.

The Healdsburg Winery.—At a meeting of vineyard proprietors, August 26th, Mr. Rodgers, from the Soliciting Committee, reported that he had succeeded in obtaining subscribers for 10 additional shares, making a total of 152 now taken, of the 200 required to commence business with. The committee were granted one week's further time to report, and a full report was requested. The Committee on Articles of Incorporation reported that one signature was lacking and as soon as it was obtained the papers would be forwarded for proper filing.

STANISLAUS.

Hops.—*News*, Sept. 1: Mr. Ostrom has this year raised about 40 acres of hops on the Tuolumne river bottom, near this place. The yield is splendid. The crop is now being gathered by Chinamen, who pick by the pound, realizing from $2 to $2.50 each per day and board themselves. There is certainly much of the low land of this county susceptible of cultivation in hops.

SUTTER.

Levee Building.—*Banner*, Aug. 31: Levee No. 1 is again being overhauled and thoroughly repaired. The bulk-head across the head of the slough is receiving special attention; a large force of men are at work on it with mattocks, cutting the entire surface on the water side, for the purpose of filling up the old gopher holes. The entire levee will be cleared of all vegetation, and carefully examined, after which all places that are deemed unsafe will be strengthened. The directors are determined to try what virtue there is in vigilance, and to take every precaution to insure its safety. An ounce of prevention is better than a ton of cure in this case, and we are pleased with the plan adopted by the directors of district No. 1.

YOLO.

Selling Wheat.—*Mail*, Aug. 31: The largee number of our farmers have concluded to quietly dispose of their crops and avoid the expense of storing and insurance. It is probably just as wise, for it would require a rise in price at least 25 cents per cental greater than it now is to pay the keeping for two or three months to come, not including interest on the money. Some say that it does not cover the expense of production when sold at less than $1.50 per cental. They are correct in this. It argues, therefore, that the soil might be used to a better advantage in mixed productions. We believe our farmers, as well as those in the East, could produce what they require for home consumption in the way of meats, vegetables and fruits. Instead, however, they burden the soil each year with large crops of wheat and let the minor articles of home consumption be furnished at the expense of the wheat crops. When the grain crops fail to pay expenses on account of drouth or low prices, the minor articles eat into the pocket. There would be less dyspepsia, less complaining of hard times, and fewer mortgaged premises, if a system of mixed home productions was inaugurated.



"Have Mercy."

"Blessed are the merciful for they shall obtain mercy."

[By GEORGE G. W. MORGAN.]

Have mercy, sons of earth!
Be merciful, be kind;
'Tis written that the merciful
With God shall mercy find.

Have mercy on the poor!
Though rich ye now may be,
Ye yet may taste the dregs of woe,
Distress ye yet may see.

Have mercy on the weak,
If strength or force ye wield;
To giant death the strongest man
At length will have to yield.

Have mercy on the erring!
Leave it to Him alone
Who hath no sins to answer for
To cast the acensing stone.

Have mercy on the fallen,
And aid them in their needs,
And lead them into better paths
Than where the tempter leads.

Have mercy, sons of earth!
Be merciful, be kind;
And rest assured the merciful
With God will mercy find.

Retrospection.

[Written for the RURAL PRESS by PHILMORE.]

When straying memory wanders back
Across the mystic bridge of years,
We mark the footsteps we have trod,
Made bright by smiles or sad with tears.
The rugged, rock-bound hills arise,
With plumed crests of living green;
The blooming valleys greet our eyes,
And winding rivers glide between.
Backward across those boundless plains
Our thoughts transport us while we rest,
We count not pleasures, count not pains,
But live with those we've loved the best—
Those meadows decked with lovely flowers,
Where perfume scents the morning dew,
Those wild vines clustering round the bowers
That once our infant footsteps knew;
In those sequestered, quiet nooks,
Where whippoorwill at close of day
Sang plaintive songs to babbling brooks,
While we, a charmed listener, lay.
The cuckoo, too, with gushing song,
Disported in the sylvan shade,
And broke our slumbers all night long
With echoes from the upland glade.
Sweet are such memories, passing sweet,
When we on wings of transport rise;
For, though our bodies may not meet,
Our souls, untrammeled, mounts and flies.
What is the soul? a casket rare,
That opens not to mortal eyes;
The precious jewels treasured there
Are only meant for Paradise.

Oppressive Figures.

"Our city; cost of its ruin," was the title of an outspoken temperance lecture delivered by Rev. A. S. Fiske, at the Presbyterian church on Howard street, last Sunday evening. There is no need, he premised, to enter into any elaborate discussion of the constitution of this thing that destroys, nor of the history of its development and use. Suffice it to say that alcohol is a thing evolved out of a rotten substance. It is the terrible essence of decay; it is the very living spirit of the putrid. Science has shown that it is neither food nor fuel. It is simply an irritant, and this was its effect from its first titillation to its last agony in delirium tremens. It is a lying spirit. Its distilleries can be honestly ganged by no government under Heaven, nor its treacherous drug fairly meted out by any measure yet invented of man, nor its taxes honestly paid under any system of revenue. The worm of the still is crooked in the grain and cannot be made straight, and it is a worm that dieth not, that gnaweth ever. There are no fewer than 2,300 places for the retail sale of intoxicants in this city. No man would venture to estimate the average earnings of such places throughout the country at less than $10 a day, giving an average of about $5 profit. The receipts in San Francisco would need to be much larger than this; for ours is a costly town and the rents are high, and living is good and all things are done with a wide, open hand, and we are nothing if we are not large in our vices. We do not mean to be stingy—we disdain to set the support of our drinking houses at a lower figure than that of the average through the country towns—than that of the narrow, puritanic, penny-saving East, as we are pleased to call it. But take the receipts at $10 a day. This gives an average of $23,000 spent daily among the 2,300 retail drinking places of the city. For a week the amount was $161,000, a good round sum. At thirty days, it gave $690,000 per month. Why, the figures are getting oppressive. Well, then, the figures are oppressive—not in a sermon only, but in a city; and they oppress not the imagination alone, but life everywhere. For the year the sum was $8,400,000. We spent money enough in twelve months for drink to carry on our common schools for ten years without having to pay our teachers warrants that had to be discounted. We squandered enough in one year to pay twice the sum of all our taxes. But the figures told the sad story in another way. 2,300 saloons among a population of 250,000 gave one to every 113 persons of both sexes and all ages Out of the ranks of this 113 must be counted the children, the women and the untainted—a full three-fourths. That leaves 28 persons for the maintenance of each dramshop. What an appalling taxation these men have to bear! If Christians would tax themselves in the same ratio the redemption of the world would be speedily wrought. It is impossible even in the rich and powerful and devoted Presbyterian church to get for all Christian objects together so much as ten cents each a day. Consider the devotion of these 28 men to their drunken god. Get rid of this traffic and three-fourths of our police might be dismissed; many of our courts might be abolished, our prisons would be mainly emptied, our poor houses would be thinly peopled, our list of shameful and appalling crimes would be shortened, murders would be rare occurrences, a suicide would be a seven-day's wonder, and our security, honor and good name would be re-established in a day. We are exhibiting at this season the products of our industry; among them he noticed the products of the liquor traffic—no, not that exactly. The products of the traffic were outside—in the gutter, in blasted homes, in the drunkard's grave. "Is not the cost of the traffic in this city," he asked, in conclusion, "too intolerably heavy for the human mind to weigh, for the human heart to endure; and when its cost gets home upon your sons and your daughters and into the circles of your home, it will be heavy enough to break your heart as it has broken the hearts of ten times ten thousand in our land before."—*Call.*

A CHAPTER ON NOSES.—There be noses and noses. There is the nose decisive—a rare species—sharp, aquiline, and firm, like the beak of an eagle, looking as if it were capable of cutting its way right to the heart of anything towards which it may be set. There is the proboscis practical—large, solid, and hard, shaped more for use than ornament—not supercilious in its likings, and prone to prefer a good, sound, common-sense trail. Then there is the nose sensitive—a small, delicately fashioned organ,

"Tiptilted like the petal of a flower,"

That sneezes in a genteelly deprecating manner, and is quick to catch a scent, but does not care to follow it. There is the nose indecisive, either short and unformed, or large and loose, having neither the firmness of the proboscis practical nor the keenness of the nose decisive—a nose that has nothing of character about it, and which therefore fails to inspire confidence. When a great personage was suspected of trying to convert an owner of this style of proboscis to Romanism, a friend remarked that they had better begin with his nose. Apart from its wit, this showed a keen appreciation of my philosophy. Such a nose as this last seems too weak to be mischievous and possesses too little character to be useful. Its voice—for even a nose has a voice—betrays it. It snores in a vacillating sort of fashion, and blows like a child's toy bellows. The snore of the nose decisive is unmistakable—it cuts into your pleasantest dreams with a sharp, startling goor-r-r-r-rrr-ugh! that fetches you up with a jerk, and gives you no alternative but to submit. The proboscis practical has less of the tragical growl about it; it snores with less dignity, and is, in fact, more commonplace in its utterances. The moment you hear it you know it is a snore and nothing else. It hiss a strong, heavy, regular rumble, a sort of goohr-r-r—oohr-r-r, like the monotonous grating of a saw steadily eating its way through all obstacles by a slow, unfailing motion.—*Adelaide Observer.*

FRIDAY IN AMERICA.—Friday is regarded by some people as an unlucky day, whereas, for Americans, at least, it has proven itself to be the most fortunate of the seven. It was on Friday, the 3d of August, 1492, that Columbus sailed from the harbor of Palos for the New World. It was on Friday, the 12th of October, 1492, that he first saw the land after 65 days of navigation. It was on Friday, the 4th day of January, 1493, that he started on his return to Spain to announce to their Catholic majesties the glorious result of his expedition, and on Friday, the 15th of March, 1493, that he disembarked in Andalusia. It was on Friday, the 13th of June, 1494, that he discovered the American continent. On Friday, March 5th, 1497, Henry VII. of England gave to John Cabot his dispatch for the voyage which resulted in the discovery of the continent of North America. On Friday, September 6th, 1565, Mendez founded St. Augustine, the oldest town in the United States. On Friday, November 10th, 1620, the *Mayflower* first disembarked a few emigrants on American soil at Provincetown, and on Friday, December 22d, 1620, her passengers finally landed at Plymouth Rock. It was on Friday, February 22d, 1732, that George Washington was born. It was on Friday, June 16th, 1775, that the battle of Bunker Hill was fought, and on Friday, October 7th, 1777, that the surrender of Saratoga took place, which event decided France to give her aid to the Americans. The treason of Arnold was discovered on Friday, and Friday, June 17th, 1775, Richard Henry Lee read the Declaration of Independence to the Continental Congress.

ON the cards recently issued to a silver wedding at Columbus, Ohio, was the following modest warning: "Please avoid dollar stores."

[From Mechanics' Fair Daily.]

Farmer at the Fair—No. 3.

In my last I was left standing by the side of all those bottles stacked in pyramidal form near the entrance. Well, were they as full of poison as bottles commonly are, that were an unkind and dangerous place in which to leave a friend. It is an old adage, the greater the risk the more powerful the temptation, and would seem as though we had come honestly by this disposition to give any great danger a "dare," even as we would our adversaries in the boyish game of "gaol." I know of no greater danger than lurks within those self same innocent bottles, and honestly believe that the one great curse of the world is too much attention to glassware. But we will drop it now, for fear you vote me a bore with the whole bottle question.

Granther's eyes caught sight of Heald's Business College on the floor of the Pavilion, and his curiosity was aroused to know why that melancholy young man was closed up in there. On being informed that it was a miniature college, he "didn't wonder that Jed got pale and peaked when he was off to college, if he had to be shut up in such a little place." 'Twas a sore subject to him, and I let it pass unnoticed. He passed with contempt the stack of bitters, I X L and others, saying, "A little good yarb tea is better'n all of it, and I don't wonder nobody can get a living by work if they have got to be pouring bitters down their throats all the time. We used to have a little cider brandy or rum in the house all the time, but we didn't but it down our throats every time we turned around and then atween times in the shape of bitters."

As we came to Gallagher's fine show of vehicles he said: "Don't let's look at the buggies, Kiah; I know you want one, and that nice little low one would be so easy for your old mother to get in and out of; but you han't got the money to buy 'em, you know. They arn't much like the buggy I had when your mother was little, and everybody in town thought I was getting stuck up cause I got that. Why, old Parson Brown gin us a long lecture on pride the next Sunday, and I guess I'd been turned out o' church if I hadn't loaned it to the deacon's funeral to draw the coffin in, and to the parson to go to conference with. You know, Kiah, it had no springs under it at all, and was just made like coaches are now, only the leather rockers weren't there; and the seat just set separate on some slanting pieces of wood and jumped twice when the wheels jumped once. Wouldn't there been a terrible commotion if any one had brought that gingerbread and candy looking carriage into town? hey, Kiah?" But the old man's eyes turned back longingly to the fine barouches, neat buggies, and comfortable looking phaetons on exhibition near by.

I did not know what to say of the new style wheel exhibited by Sanborn & Duval. The idea seems good, and in this country, where there is no frost, ought to work well. The Sarven wheels seem to me to be the best for light work of any style in the Pavilion. I have seen one in constant use for three years on a stage line, and it has stood up to the battle against mud, rocks, rain and sun admirably.

"Kiah, what are those? Safes to put money in, eh? Well, that makes me think of the time when you had two shillings and went and spent it for a wallet. 'Pears to me those fancy looking boxes would cost so much that you wouldn't have any money left to put in 'em after you got one home. I wonder if that Kittredge didn't come from down in Maine. Maybe he is Keziah's Kittredge's son, they most always had a Jonathan in the family. If he was here I'd find out. What do you think of these weighing things, Kiah? They look strong enough to weigh buffaloes on, but what on earth are they here for, if they are for buffalo weighing? I guess the Government better send them to Crook to weigh Settin' Bull when he hefts him a time or two.

"Ah, Kiah! If your old grandma had had one of those little cook-rooms there to cook in, instead of having to burn the top of her head grey over the fire-place, she might have lived longer. Ranges, you call 'em? Well, spose they are, they are big enough to be called cook-rooms when you set them alongside a Dutch oven such as your bread was baked in when you was a little white headed shaver. Do you remember how your granny used to bake dodgers for you, on a clapboard turned up in front of the fire? Just made out of meal and water, and a little salt, and rolled up so, and the print of her fingers on 'em like this?" And the old man's eyes moistened as he went through the motions of making a Johnny cake, and his head bowed on his breast as he went over the days of his early struggles with the "clearing."

And I thought, too, of the many patient days' labor that venerable form had wrought in the forests of Ohio; how the sturdy oak and gnarled beech, the towering maple and tough hickory, had fallen before his vigorous blows; how the fire had been coaxed to make a reluctant start in the tangled mass, and then as persistently been fought to keep it from destroying house and barn; how then he and the willing neighbors had tugged and strained to pile up the burned and blackened trunks the fire had left, and the frolic and dance at night when the labor was accomplished. And I thought of the days I had spent plowing in the field now so clear and clean that a header can march unresistingly over it, and wonder that the hand of man could accomplish so much with the indifferent tools then in use; and also wonder what would twenty young men of the present day do if turned loose in a virgin forest, with nothing but coarse corn bread for food, an axe and draw-knife for tools, and the blue vault of heaven for a roof. Would they not repine at their lot if they had to come down to green corn and pumpkin while awaiting the ripening of the first crop? Would they not turn in disgust from the meat of the ground hog, 'coon or opossum, while awaiting the growth of sheep and cattle? Yet this did our fathers, and more; they fought the relentless savage while they suffered the privation of every comfort. Let us show ourselves worthy of the advantages we enjoy, and profit by the happier auspices under which we begin life.

KIAH.

GIRLS' NAMES.—In any modern school catalogue or newspaper list of ladies' names which you may chance to meet, you find an endless iteration of the favorite inflection *ie;* as if the beauty or attractiveness, if not the respectability, of the young ladies, in some way depended on this liquid and endearing termination. In the short space of one page of the catalogue of a prominent young ladies' college,—a school of much higher pretensions than the average seminary, and whose students are of a more advanced and thoughtful age than mere seminary students,—one may find (as we have satisfied ourselves by trying) at least the following varieties; viz.: Jennie, Nannie, Hattie, Minnie, Maggie, Nettie, Nellie, Allie, Addie, Lizzie. Lord Dufferin, the present dignified Governor General of Canada, has lately chosen to bring this tendency into notice (and so we suppose it prevails in Canada, too) by making it a special topic in his address at the late commencement of a young ladies' school in Quebec. But he credits the habit, or its exaggeration, to the United States; and thinks the practice, when it becomes a "national characteristic," is "not without significance." Some future physiologist, perhaps, may pick it up as a remnant of that period when the young women of our most cultivated circles bore the badge of belittlement and patronage, and infer therefrom that the Oriental type of infantile helplessness had certainly survived to this era even in western lands.

PRESENT DOING.—Don't live a single hour of your life without doing exactly what is to be done in it, and going straight through it from beginning to end. Work, play, study, whatever it is—take hold at once, and finish it up squarely and cleanly, and then attend to the next thing, without letting any moment drop out between. It is wonderful to see how many hours prompt people confrive to make of a day; it is as if they picked up the moments the dawdlers lost. And if ever you find yourself where you have so many things upon you that you hardly know how to begin, take hold of the very first one that comes to hand, and you will find the rest all fall into file and follow after like a company of well drilled soldiers, and though work may be hard to meet when it charges in a squad, it is easily vanquished if you can bring it into line. No man ever largely succeeded who just looked his work in the face.

HOW THEY MARRIED IN '76.—A hundred years ago a Virginia belle was not to be won without foolscap and red tape. This was the certificate that the bride had to sign before her lover could get a marriage license: "The bearer hereof has my permission to procure from the authorities the necessary credentials, which shall duly and honorably merit my attention in the support of my affections, to continue through the end of all things, which shall reflect every ray of honor ascribable to so resplendent an element or sentiment of my right mind, and which shall henceforth be strictly adhered to the proper form, at my instance and his importunity, in the making valid of all things pertaining to the stream of my desire to become his partner in the vigor of my youth, in the morning of my affections, properly directed to the momentous obligation of conjugal embraces in endless felicity. In witness to the above, I have hereunto," etc.—*N. Y. Tribune.*

A SWARM OF B'S.—The following is a swarm of B's worth having:

B patient, B prayerful, B humble, B mild,
B wise as a Solon, B meek as a child.
B studious, B thoughtful, B loving, B kind,
B sure you make matter subservient to mind.
B cautious, B prudent, B tasteful, B true,
B courteous to all men, B friendly with few.
B temperate in argument, pleasure and wine,
B careful of conduct, of money, of time.
B cheerful, B grateful, B hopeful, B firm,
B peaceful, benevolent, willing to learn;
B courageous, B gentle, B liberal, B just,
B aspiring, B humble, BECAUSE thou art dust.
B patient, circumspect, sound in the faith,
B active, devoted, B faithful till death;
B honest, B holy, transparent, and pure,
B dependent, B Christ-like, and you'll B secure.

LEFT HIM OUT IN THE COLD.—Yesterday a youngster of two and half years, who had become jealous of his two weeks old brother, on being left alone with the infant for a couple of minutes, lugged him out of doors, where he left him. When "Little Jealousy" was questioned why he did it, he replied that he "was going to take him back to grandpa; he didn't want him any more."—*Boston Transcript.*

Insanity in the United States.

The intelligent care of the insane, with a view to the restoration to health and society, is so recent that it may be dated, in the United States, in the present century. The time is even within the recollection of many now living, when faith in the curability of the disease became general, even among medical men. Upon the dawning of the belief that insanity was susceptible of cure, hospitals began to be built, for the two-fold purposes of custody and treatment; for besides the difficulty of taking care of lunatics at home, it was found that comparatively few recovered. From this period hospitals began to be regarded as not only the best, but to most persons the only places for the insane. Heuce an increasing demand for their accommodation; and though their numbers have multiplied largely, and have greatly increased in size, they are still inadequate to entertain all who knock at their doors and with piteous appeals seek admission. In this connection may be noted a curious result of the establishment of new hospital facilities. The newer States, in estimating the hospital capacity necessary for their insane, have naturally consulted the census statistics to find what number to provide for; but it is invariably found that when a hospital is opened for the accommodation of a given district, the applications for admission far exceed its capacity, largely outnumbering the statistics collected by the census-taker. The country seems suddenly thronged with insane people, and we are apt to be impressed with the belief that this dread disease is largely on the increase. But the probable fact is that no such increase really exists. It is not unnatural that, mainly out of family pride, the questions of the census-takers are often evaded, and the relatives of the unfortunate patient, seeing no benefit to come from revealing this "skeleton in the closet," keep it from observation. But, promptly when an asylum is opened within their reach, free to all without pay, the curtain is drawn and they come forward with their afflicted.

That insanity does not increase, *pro rata*, at least in the United States, is proven by the census returns for the past twenty years. In 1850, this country had a population of 23,191,876, and a total number of insane and idiots of 31,397, or 1 in 378. In 1860, with a population of 31,443,322, there were 42,864 insane and idiots, or 1 in 733. And in 1870, with a population of 38,555,983, there were 61,909 of that class, or 1 in 623. In England, during the same period, there was an average of about 1 in 450; In Scotland, 1 in 460; in Ireland, 1 in 400; in France, 1 in 600; and in Australia, 1 in 524. These reports, if accurate, show a favorable condition in this country as compared with that of others.—*Scribner's for September.*

Aged Damask.—To the collection in the Eighth street gallery of the Pavilion yesterday, was added a table cloth by the Rev. Dr. Bettelheim. Lying spread out in a show case, few would even give it a passing glance but for the inscription upon it "This table cloth was made in the year 1742." It is not a distinguished looking damask, and bears no marks of its distinguished antiquity. No armorial bearings are quartered upon it, neither lions rampant nor salient, no rising nor close eagle, neither chevron nor cross, saltier nor orle, but just plain damask such as any one might look at and purchase. A very narrow hem is upon it, as if it might have been too precious to waste in turning under. How many changes have occurred since the good housewife cast the shuttle to weave that simple piece of household linen. Dynasties have risen and passed away empires, republics, kingdoms, have succeeded each other in rapid array. America has risen to the higest rank among nations, and ancient Germany become an empire again, and her sons and daughters have brought their fair locks and sturdy arms to build up an empire of industry in this far off clime. And lo! this aged table cloth has passed safely through all, and come here to exhibit itself in competition with more modern manufactures in the infant world of the Pacific.

Over-Educating.—At no period of youth should education be pushed beyond its proper limits, or the mind be worked above its powers; the welfare of the pupil demands the observance of this rule on the part of the master as well as the parents, more especially when the child belongs to that class of strumous children whose intellects are preternaturally acute. Unfortunately, however, these are generally the pupils selected by the masters to do credit to his establishment; every means are taken to encourage this premature manifestation of the mind, and to stimulate the child to renewed exertions; and thus the health is enfeebled, and even life is often sacrificed, at a period of brilliant promise, when the hopes of friends are buoyed up by fallacious expectations, which a more rational system of education might have realized.—*Sir James Clark on Consumption.*

A student who failed to pass in his Greek history examination, repudiated with scorn the insinuation that he was not prepared. He had crammed himself, he said, so tight that he could not get it out again.

The time when a man fully realizes that woman's sphere should be enlarged, is when he finds that his wash-woman has mistaken his stockings for his shirt bosom, and starched them accordingly.



SCHNITZERL'S PHILOSOPEDE.

Herr Schnitzerl make a philosopede,
  Von of de pullyest kind;
It vent mitout a vheel in front,
  And hadn't none pehind.
Von vheel vas in de mittel, dough,
  And it vent as sure as ecks,
For he shtraddled on de axle dree
  Mit de vheel petween his lecks.

Und ven he vant to shtart id off
  He paddlet mit his veet,
Und soon he cot to go so vast
  Dat avery dings he peat.
He run her on Montgom'ry shtreed,
  Ho shkeeted like der vind,
Hei! how he bassed de vancy crahs,
  And lef dem all pehind!

De vellers mit de trottin nags
  Fooled oop to see him hass;
De Deutschers all erstaunished saidt:
  "*Potztausend! Was ist das?*"
Boot vaster shtill der Schnitzerl flewed
  On—mit a gashtly smile;
He tidn't tooch de dirt, by shings!
  Not vonce in half a mile.

Oh, vot ish all dis eartly pliss?
  Oh, vot ish man's soocksess?
Oh, vot ish various kinds of dings?
  Und vot ish hobbiness?
Ve find a pank-node in de shtreedt,
  Next dings der pank is preak;
Ve folls, und knocks our outsides in,
  Ven ve a ten shtrike make.

So vas it mit der Schnitzerlein
  On his philosopede.
His feet both shlipped outsideward shoost
  Vhen at his extra shpeed.
He felled oopon der vheel of course;
  De vheel like hlitzen flew;
Und Schnitzerl he vas schnitz in vact
  For id shlished him grod in two.

Und as for his philosopede,
  Id cot so shkared, men say,
It pounded onward till it vent
  Ganz teufelwards afay.
Boot vhere ish now de Schnitzerl's soul?
  Vhere dos his shpirit pide?
In Himmel troo de entless plue,
  It takes a medeor ride.

—*Charles G. Leland, "Hans Breitmann."*

Young Folks' Column.

Ned's Trouting.

Towards night the fire was replenished, and Ned was sent down to the shore for a fresh supply of water.

"Hurry up!" called Antoinette after him. "And don't stop to fish!"

This last remark was unfortunate. It suggested glowing possibilities to Ned. He took the water-pail and his fishing rod also and made his way to the shore. Half an hour passed but Ned did not return.

"I begin to feel anxious about him," said Mrs. James. "Hadn't you better look him up, Jack?" And Jack lazily sauntered towards the shore.

The sun was already sinking in the west, and Ned knew that sundown was the proverbial time for fishing. He had also that afternoon noted a rocky point of land that jutted out into the lake, and which seemed to him "just the place to cast a fly." He only wanted to get there, all by himself and see what he could do. "Cousin Jack is very well in his place, but a fellow don't like to be bossed, you know." Thus thinking it over Ned decided to try his luck. "If they don't bite, I'll go right back with the water," he said, "and if they bite lively, I'll stop a few minutes, and surprise them with some trout for supper."

So, putting the water-pail down on the rocks Ned swung his line into the air, and drew the white and mottled flies slowly across the surface of the water. Once, twice, thrice—suddenly there was a flash! Ned swung his line sharply in, and—yes, there was the trout—a little fellow nine or 10 inches long—securely hooked.

The boy was ecstatic. Lacking a creel, he slipped the fish into his coat pocket, and sprang farther out upon the rocks, which formed a shallow basin in front of him, and beyond which he cast his flies. Bite after bite followed in quick succession; but they were only "shiners," and Ned tossed them back into the water in disgust. Finally there was a sharp, quick rise. A trout this time sure. Ned gave an exultaut spring, but the wet stones proved treacherous. There was a sudden splash, and when the commotion subsided our young friend might have been observed sitting in the shallow water, with a broken fishing rod in his hand, and the end of his line securely hooked to a snag, just visible on the surface of the lake.

Ned didn't get up—he sat there. He was in a watery mood. His bamboo rod—his heart's dearest treasure—was broken short off at the second joint. There really didn't seem to be much in the world worth living for!

A hearty "Haw! haw!" disturbed the boy's reverie.

Ned sprang up. To "feel bad" was one thing; but to let Jack see him "feel bad" was quite another story.

"Well, upon my word! What's this? A porpoise?"

"No, it wasn't a-purpose I slipped!" said Ned, shortly.

"But where's that pail of water, young man?"

"Most anywheres 'round here, I should say. I find it handy enough;" and with the streams trickling from every seam in his clothing, Ned scrambled back to the shore, while the yellow wooden pail, which had in some way been launched during the accident, went serenely bobbing up and down on the waves across the lake.

"Here's your water," said Ned, as he came dripping up to the camp; "but you'll have to put me through the lemon squeezer to get it."

Good Health.

Sea Sickness.—As everything relating to sea sickness is of interest in these days of travel, we give for what it is worth the gist of a letter recently printed in an English scientific journal: "Many years ago I had frequently to cross the Irish channel, and was invariably sick if there was the least motion in the water. Once when it was very rough, and the wind blowing a hurricane, in some unaccountable way I hit luckily on an expedient which for me, at least, is an effectual preventive, and I should like it to be tried by others. For what reason I cannot say, but I made my respiration coincide punctually with the heave and fall of the vessel. As she rose I inspired slowly and regularly, and as she fell I expired, and the effect was so completely successful that I several times fell asleep. But each time (I suppose because the breathing was no longer synchronous with the vessel's movements), I was awakened by sensations of sea-sickness, which two inspirations and expirations, as above described, immediately dispelled, and I completed a very rough voyage with comparative comfort. I have sailed since, though not on a very rough sea, and have been able to walk the deck and enjoy the voyage. My inference is that sea-sickness is caused by the heavings and falls of the vessel crossing the motions and operations of the diaphragm, which unseasonably presses on the upper stomach and liver, and so disorders their functions."

Eucalyptus Globulus in Pulmonary Gangrene.—Of all the drugs employed by Dr. Bucquoy (of Cochin hospital, Paris) in pulmonary gangrene, none, he asserts, have given him better results than *Eucalyptus Globulus*. He uses it in the form of an alcoholate—two grammes (half a drachm) daily in a mixture of water, gum, orange-flower water and syrup. Out of the various cases he has had under his care at Cochin, five ended in cure, whilst in all the others there was a favorable modification of the odor of the breath, the sputa and the violent cough, after carbolic acid had failed.—*Druggists' Circular.*

Domestic Economy.

How to Use the Peaches.

The peaches continue plenty. The fruit grower is sometimes puzzled to place them profitably. With a view to increasing the home consumption and thus reducing the surplus, to some extent at least, we give the following from an exchange:

Peach Pie.—Pare and slice firm, rich, sweet peaches, one pint for each pie. Oil the pie dish, and sprinkle over it "A" oatmeal to the depth of one-twelfth of an inch. Spread the peaches carefully over this, and pour over it, evenly, sufficieut water to wet the oatmeal—nearly as much as there was of the oatmeal. Then grate au ear of rich green corn, add an equal measure of water, strain through a colander, aud stir in fine Graham flonr enough to make a batter, a little thinner than for gems. Smooth down the peaches, and spread this batter thinly upon the surfaoe, letting it run down and meet the oatmeal at the edge. Bake in a moderate oven until the peaches are tender and the crust slightly browned. Serve cold.

Peach Custard Pie.—Make a crust by wetting fine oatmeal with one part cold water to three oatmeal. Roll out the required thickness, and spread upon the oiled pie-dish. Then grate and scrape down three ears of rich, well-matured sweet corn (very young corn will not work in satisfactorily), add an equal quantity of water, and strain through a colander. Mix with this an equal measure of rich, tender, sweet peaches, mashed or very finely sliced. Fill the crust with this, and decorate with red-cheeked bits of peach, if at hand. Bake 20 minutes in a good oven, not quite hot enough to scorch the crust. Serve cold.

The same mixture makes a delicious pudding, but for some tastes both the pie and the pudding will require additional sugar.

Peach and Tomato Sauce—Peel and slice one part rich, sweet peaches, and two parts sweet and well-ripened tomatoes. Mix them thoroughly, and let them stand where it is cool, for an hour before serving. Very sweet, rich muskmelons may also be cut and mixed with tomatoes in the same way.

Canning Peaches.—In whatever manner the skins are removed from peaches, if the fruit is expected afterward to keep its clear, bright color, it must not be exposed to the air. It should be put at onco under water, either in the cans or in the porcelain preserving kettles. When the fruit is required very nice, it should be pared and halved, or cut from the stones, and packed closely in the cans under water (with or without sugar), and then the cans set in cool water, heated and boiled 20 minutes. Take them out, fill with boiling water, and screw on the lids at once. Some prefer to let the steam bubbles escape, but if this is done the hot water must be put in promptly, and they should be covered inside of two minutes. In this way, unless the peaches are overripe, the juice will be clear and the fruit unbroken.

But for large quantities for family use, this is too much trouble. The fruit may be cooked in a kettle, dipped into hot cans and sealed at once. Fifteen or twenty miuutes is a sufficient time to cook them. They may be canned with or without stoning and peeling. The peeling can usually be separated in eating. Though this should not be the rule in canning peaches, yet when the hurry oomes (as it surely will if peaches are plenty), and the question lies between unpeeled peaches and none at all, let us have the unpeeled in qnantities.

Peach Stains.—After peaches have been served at table, let a little care he taken not to wet the tablecloth or napkins until they are to be washed. Then place them in a tub or other vessel, by themselves, and pour direct upon the stains boiling water and plenty of it. When quite covered with the water, let them stand until cold, when they may be washed in the usual manner. This is a valuable recipe for all fruit stains, especially on colored goods, which will not bear the application of the alkalies. A little experience will aid the treatment materially. If the stains accumnlate on white goods, treat them with javelle water, which can be obtained of the druggist or made with washing soda and chloride of lime, two pounds each, treated with 8 quarts of boiling water (in wood or stone), covered a day, stirring occasionally, and then straining through ticking or other thick goods. Great care should be taken in making and in using it, as it will eat both hands and clothing.

A College of Cookery.—At last a practical step has been taken towards emancipating the people from the evils of bad cookery. We know of no department in domestic economy which is so sadly in need of reform, especially in the United States. Mr. William Emerson Baker, of the sewing machine firm of Grover & Baker, has given to the Governor of Massachusetts and to four other trustees a tarm of 50 acres and $50,000, to form a college of cookery. Cookery is to be taught as an art—which it certainly is—and the pupils are to be instructed in the scientific principles which underlie wholesome cookery.

Graham Muffins.—One pint of graham flour, a pint of milk, one egg, a little salt.

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Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, September 9, 1876.

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The Week.

The event of the week has been the rain. Many phases had the storm. In the city the one-fifth inch of water was enough to transform the dust into an inky syrup, which could be traced everywhere, from the bottom lands of Battery and Front streets to the hill top parlor carpets. In the country the range was from patter to pound. Toward the north the gentle patter fell upon the streets of Vallejo, while farther up the lightning and hail played for an hour upon Sonoma and Napa counties, and the tornado led the trees and windmills of Lake county through a lively reel. Toward the south, there was a scattering for shelter at Gilroy, and a storm beyond in the south country. In the interior of the State the drops fell with varied generosity. The occurrence was something altogether phenomenal. We do not yet learn whether the drenching was enough to harm the bales of hay or sacks of grain which dot our fields in all directions. So far as the dry dust of roads and pathways is concerned the visitation was grateful, although its influence endured but a moment.

The week has also seen the bond sealed which links our State north and south in the advantage of rapid transit. The great central portion of our commonwealth clasps hands with Los Angeles. The union is fitting to commemorate the anniversary of our birth as a State, which the present week will bring ere it closes.

The Wheat Market and the English Crop.

During the week an upward tendency in the wheat market has been clearly developed. The immediate cause is alleged to be a deficiency in the English crop, which has now shown its proportions at the spout of the separator. A renewed demand has arisen among the English millers and the price rises before them. It is reported that the English farmers do not propose to deliver their grain at present prices and the situation in the old country is doubtless something as it is in our own State

Although the cable has advanced 1d and 2d on average California, and 2d and 3d on club, there is discernable as yet but a little firmer feeling in this market, without any change in open quotations. The cable price to day is given at 9s 4d and 9s 7d for average California, and 9s 8d and 10s for club. As nearly all the wheat shipped from this port ranks as club, the price is to be placed at the higher figures. Taking freights nominal at £3, for the advance has stiffened the views of the men who hold the charters, the equivalent of the cable quotations is as follows: $1.50 and $1.57½ for average California, and $1.60 and $1.65 for club. The transactions noted in our market review show that the sales of the week have lagged behind the cable quotations. We hear from the country that considerable sales of wheat are being made at prices ranging from $1.35 to $1.40 per cental. Many growers prefer to take present prices than the risk of holding. In consequence the receipts of wheat are large and vessels are obtaining cargoes. Although any judgment which may be formed is liable to reversion through changed conditions, still there can be but little doubt that wheat is very good property at the prices which are ruling now.

The latest information which we have of the English crops, by mail, is from the columns of the Loudon *Agricultural Gazette*. This enterprising farmers' journal is wonted to send out from year to year circulars to its correspondents, asking for the news of the harvest. In the issue of August 14th, several pages of the paper are given to tables containing these reports in condensed form. Advices are received from nearly 300 points throughout the kingdom, and thus the whole field is pretty well covered. The summaries from these reports will be of much interest to our readers: Of the returns on wheat, 130 reported an average crop; 117 reported below the average, and 36 reported above the average. Converting these figures into the percentages which they represent, the *Gazette* finds that 48 per cent. of the reports were average, 40 per cent. below the average and 12 per cent. above the average. In commenting on these results the *Gazette* says that the only consolation which the figures afford are in comparison with 1875. In 1875 the reports were 36 per cent. average, 57½ per cent. below the average and 6½ per cent. above the average. But 1875 was an exceedingly poor year, and to show that the present crop does not compare well with a good year, it is but necessary to refer to the returns for 1874, which were as follows: Eighty-three per cent. average, 7 per cent. below the average and 183 per cent. above the average. In making a short summary from its reports the *Gazette* says: "Stated shortly we may take it as a fair conclusion that the wheat crop is considerably below the average; the barley crop is hardly average; the oat crop is generally poor; the pea crop is unusually good; and the bean crop is a poor one."

That these conclusion of our English contemporary, three weeks ago, are found true, we have evidence in the telegraphed report from Mark Lane, which may be read in our "Market Review."

SHEPHERDS, TAKE COURAGE.—In addition to the news of improved Eastern markets for our wool which we print from week to week, we learn from a report of a sheep breeders' meeting in Vermont that the Northern wool growers are hopeful of a revival. The *Rural New Yorker* gives a speech made at the meeting, from which we take this sentiment: "Brother sheep breeders of Vermont, we have had of late a dark night of depression in our business. Be not discouraged, for the night, although long and dark, is disappearing. Already unmistakable signs of returning prosperity greet us on every hand. Let us rally to our work, which is to show the world by our acts and deeds that the fine wool sheep breeding of Vermont is neither waxing cold nor disappearing, but that its course is onward in the march of improvement."

HORSES' FOOT AND ITS DISEASES.—We have been forced by press of matter to lay aside for a few weeks our series of illustrated articles on the "Horse's Foot and its Diseases." The series is not complete; in fact, the most interesting chapters are yet to come. They will appear in due time.

BROOM CORN IN ILLINOIS.—The broom corn crop in the Illinois district, whence comes a large part of the general supply, is nearly cut off. We learn from a correspondent of the *Country Gentleman* that it comes nearer a failure than ever before.

Beet Sugar and the Treaty.

EDITORS PRESS:—Last spring about 20 of the members of Confideuce Grange planted some sugar beet seed, with a view to testing the adaptability of our soil to the successful production of sugar from the beet. The beets have grown finely, and as we were about to take steps to have them analyzed or tested at a factory, there comes the discouraging news of the ratification of the Hawaiian treaty, which admits raw sugar from the islands free of duty. You will confer a great favor upon us, and, I presume, many others, by giving us your opinion upon the probable effect of this treaty upon the beet sugar business of this State. If you think it will not kill the business outright, will you please inform us of the best and cheapest mode of testing the quality of our beets for the purpose of sugar making, or refer us to suitable parties with whom we may correspond on the subject.—JAMES MORSE, Ja., Guadalupe, Santa Barbara county, Aug. 29th, 1876.

There is no good reason to fear that the Hawaiian treaty will exert any unfavorable influence upon the beet sugar industry; certainly not for a long time to come, at any rate. In the first place, the islands cannot produce sugar enough to greatly influence our sugar market. We are informed by a gentleman in whose information on commercial matters we have great confidence, that the whole sugar productive power of the islands does not exceed twenty-five million pounds a year, while the consumption of sugar here is sixty million pounds. The conditions are such on the islands that the production of sugar cannot be greatly increased, and what increase can be made must be slow.

We have expressed a doubt, in our comments made on the treaty in a previous issue, whether the price of sugar to consumers would be at all affected by the removal of the duty. The raw sugar must go to the refiners and whatever benefit there may be in the free trade will probably accrue to the Sandwich Island planter, or to the California refiner, and not to the consumer. As this is so there will be no influence exerted on beet sugar so long as the amount produced falls within the requirements of consumption, because beet sugar does not come into competition with the raw sugar of the islands at all. It is finished when it leaves the factory and is equal to the best work of the refineries. So long then as conditions remain as they now are (and there is no reason to expect any immediate change), the market will be open for beet sugar at prices which will well reward the producers. We can assure our querist that we see no reason for him to lose heart in his enterprise.

Our querist asks about getting his beets tested for sugar. We know no better practical test than to make arrangements to furnish a lot to a factory. We do not know whether there is a factory nearer to him than the one at Soquel, Santa Cruz county. If not he had better make application to Mr. A. Otto, the superintendent of the Soquel works, to learn whether he can test the beets from Guadalupe. This Soquel institution is now in active operation and doing a very profitable business. We find in this weeks' Santa Cruz *Courier* some facts concerning the operations of the establishment which are timely and interesting in this connection: "The factory has the capacity for turning 9,000 tons of beets annually into first-class, wholesome sugar, but the land they have under cultivation only furnishes them about 6,500 tons. They would purchase 2,500 tons more, at $4.50 per ton, if they could be had. As the production is short this year, they will not have enough beets to run them more than five months, and will make in that time 1,040,000 pounds of sugar. They consume 50 tons of beets a day, making therefrom 8,000 pounds of sugar, this being eight per cent. of the whole weight. They are turning out fine crushed A, granulated and B sugar the most of which is shipped to the San Francisco market. The works have been in operation now for seven years, the cost of construction being $100,000. Now we will produce a few figures, given by Mr. Otto, in order to see whether this investment is a paying one: Its total production of sugar in five months or 130 days is 1,040,000 pounds, which at 11½ cents per pound, the average price, gives a sum total of receipts at $119,600. We will take, as an example, one day's run, and from the expenses and profits of that length of time we can see what the total amount of clear money is.

50 tons beets, @ $5	$250 00
16 cords wood, @ $3	48 00
65 men's wages, aggregating	90 00
Lime	5 00
30 sugar barrels, @ 70 cts	21 00
Chemicals	4 00
Freight, 4 tons, @ $2 per ton	8 00
Lights	4 00
Repairing machinery, belts, etc	10 00
Commission on selling 8 tons	24 00
Insurance for one day	3 00
Whole cost of one day's running	$472 00
8,000 pounds sugar, @11½ cts	920 00
Leaving net profit of	448 00

"Calculating at 130 days' running—26 days in each five months—makes an aggregate of $58,240 clear money per year made; in seven months, if they had beets, would make $81,536; allowing a discount on the 7th month for shrinkage in the beets of one per cent., we have a deduction of $116.48 to make from $81,536, giving a clear gain of $81,419.52. Besides this, 2,700 tons of pulp are produced from working the beets into sugar, which the company itself uses, and is worth to them $2 per ton, aggregating $5,400; also 300 tons of syrup suitable for distilling or manure, worth $10 per ton, $3,000; 500 tons lime refuse, worth $20 per ton, making $10,000; showing a profit one year with another of nearly 100 per cent., or a clear gain of $99,819.52."

These figures are certainly promising enough. Whether they are over-tinged with the rose of prosperity or not we cannot tell, but there is a wide margin for contingencies and still a wide avenue for profit remains.

QUERIES AND REPLIES.

"Coffee" and Phylloxera.

EDITORS PRESS:—I have received during the past week several packages of the ripe berries of the "California coffee." The fruit is certainly that of a buckthorn or rhamnus, but not, apparently, of the same species as that which grows around the bay. I regret that so far the quantities sent are altogether insufficient for such examination as is requisite to make a satisfactory investigation of the properties of the seed. About two pounds of the fresh seed (not the berries) is the least amount that will suffice for the purpose, and more would be desirable. Will one or several of the gentlemen named by you step in to supply this prerequisite? I remark that the seed seems to spoil pretty readily unless perfectly dry; one large sample sent some time ago had not a sound grain in it, and of course was useless for investigation. I have received by express from Vacaville some beautiful specimens of the work of the phylloxera. The animal itself, however, seems to have perished in transitu. No explanation accompanied the sample. Will "Vacaville" please rise and explain?—EUG. W. HILGARD, University of California, September 2d.

We hope some of our readers will furnish the amount of the "seed" of the shrub, as Prof. Hilgard desires. Let us have the exact properties of this material settled now once for all. Specimens transmitted to a professor or to an editor for examination should always be attended by a note, because it is sometimes very desirable to communicate with the sender. Will "Vacaville" report to the Professor?

Hard Soap.

In reply to a recent inquiry for a recipe for hard soap, we print the following from Mrs. Odell's Home Cook Book: Six pounds clean grease; six pounds sal soda; three pounds stone lime; slack the lime and put into four gallons of soft water; add the sal soda, and when dissolved let it settle. Pour into an iron kettle; add the melted grease and boil. If the soap does not come in a few minutes, add soft water until it becomes the consistency of honey. Wet a tub and pour the hot soap into it. When cold cut in pieces and put away to dry.

Toulouse Geese.

EDITORS PRESS:—Having recently seen in your paper an article from a correspondent upon the Toulouse goose, please state where those geese can be had.—W. T. STANFIELD, Chino, Cal.

We are not aware who has them. If any one has the geese for sale it would be well for them to advertise.

Standard Roses.

EDITORS PRESS:—Can you or any of our readers inform me what is the best stock on which to bud roses to make a standard tree?—R. M., Orange, Cal.

Our nurserymen are using two stocks; one is the Castilian, the other is the Manetti. To make standard trees the stocks must be grown the hight desired. The first thing to do is to put in the cuttings and grow the stocks of the requisite hight.

PRICES FOR GRAPES.—As the vintage approaches, the market value of the grapes becomes more definite. It is probable that generally the crop of the large wine producing counties will be sold nearly at last year's prices. The Napa *Register* says: "At a meeting of the State vinicultural society, on Saturday, some statements were made respecting the price of grapes, and some reports of sales were made. At St. Helena a sale of foreign grapes (Thomann's) had been effected at $20 a ton. Some foreign grapes about Oakville had been sold as low as $18 a ton. A sale was reported in Napa of Mission grapes and others as they run at $13, but these figures, we are informed, are not to be considered as a criterion, because the grapes were General Miller's, who is not supposed to be so dependent upon his vineyard as most of the grape growers, and is consequently less particular about the price. The purchaser was Migliavacca. It was stated that Groezinger would do little buying, but has already engaged 160 tons at Oakville; no price named. In Sonoma there was very little purchasing, the prevailing price being $15 'all around,' Mission and other varieties included." We are privately informed that in Sonoma but $12 is offered for Mission and $15 for foreign, instead of $15 all around, as the *Register* quotes.

A NOTABLE RAILROAD CONNECTION.—The Southern Pacific is now fully completed to Los Angeles, the last spike having been driven on Tuesday last. The completion of this railroad will be of great benefit to California, as bringing the southern part of the State in more direct communication. The road switches off from the Central Pacific at Lathrop, whence it runs nearly due south to Los Angeles. From there it has been continued to Indian Wells, on its way to Fort Yuma on the Colorado river. The occasion of driving the last spike between San Francisco and Los Angeles was one of great interest, prominent citizens of both cities being present with the railroad officials. Speeches were made, a banquet given, and general rejoicing manifested. The trains now leave San Francisco *via* Oakland at 4 P. M., arriving at Los Angeles the next day at 3:30 P. M. Through distances from San Francisco are as follows: Lathrop, 82 miles; Mojave, 370; Newhall, 438; San Buenaventura, 488; Santa Barbara, 518; Los Angeles, 470; Wilmington, 492; Anaheim, 496; San Diego, 606; Colton, 528; Indian Wells, 600; Colorado river, 715.

ON FILE.—"Mangold Growing," R. A.; "Celebration at Martinez," M. B. L; "Our Young Folks" and "Woodside Papers," J. E. J.; "Notes from Washington," C. A. C.

Diversify.

Variety is the spice of life, the safety in production and the snrety of reward in the market. Diversification of the crops not only increases income bnt it also decreases expenditure for means of livelihood. It stands as a filler at one end of the purse and a sewer at the other, and the resnlt is a great accumulation between. We have written so many editorials on this snbject with the pen that we propose to write this one with the scissors. The scissors have generally full credit for the work they do on the editor's table, but sometimes editors are so arttul that it is difficult to tell where they change tools. We propose to show that scissors are really things of thoughts and are capable of framing both facts and conclusions in their proper sequence. Enter scissors:

Ventura *Free Press:* "When a farmer comes in town, declares that times are hard, barley is low, and that the business don't pay anyhow, and finishes up by stepping into a store and purchasing a sack of potatoes and one of onions, brought here from San Francisco, the chances are he has mistaken his vocation. Whatever else he may be fit for, farming is not his forte. He does not understand his business, and the sooner he sells out the better."

Lake County *Bee:* "We do not know why it is that California farmers generally persist in cultivating similar grain crops, year after year, on the same land, but the fact that they do so is well known and has often excited adverse comment. Here in Lake county, to our discredit be it said, we import potatoes from Sonoma connty, paying in freight and dealer's profit nearly $2 per 100 pounds over cost at Petaluma. An agricultural county like ours, whose people pretend to any enterprise, should not be dependent on another region for any of the necessaries of life, while they can be raised in abundance at home. Our people should be self-dependent and self-snstaining, and not, as now, send money abroad as a tribute to the better management and greater thrift of farmers in neighboring counties. But Lake county is not the only part of California where a shiftless, neglectful system of agriculture prevails. It is but too common throughout the State. A more thorough system of husbandry is needed everywhere, with a greater diversity of crops, to ensure good returns and a more general prosperity among our farming population."

Jefferson County (Wisconsin) *Union:* "Wheat growing has nearly ruined this section of Wisconsin. It has destroyed the fertility of one of the best soils that ever the sun shone on. It has introduced a vast army of insects, which now stand ready to destroy other crops. Worse than all, it has struck the farmer himself with a mental blight. Like intemperance, it steals away his brains, making him totally oblivious to his own folly. The culture of grass and corn and the raising of beef, pork, butter and cheese is the remedy for our impoverished farms and farmers. Dairymen are getting rich, grain-raisers are getting poorer every year. The profits that come from grass culture are not excessive, but they are sure. and besides the farmer is not selling out his farm by the bushel."

So much for the scissors. The lesson which can be drawn from their work is of wide application. The denunciation is too sweeping as applied to California farmers as a whole, for there are many notable cases of successful attempts at diversification in many parts. In several counties of the State we know there are commendable and enterprising efforts being put forth to secure the rewards from producing a varied food supply. Let this tendency go forward and increase. Let our farmers resolve to minister to near-by markets as far as the conditions under which they labor will permit. Milk bills and butcher's bills and bills for fruit and vegetables are almost as much out of place on the farm as mortgages. Put a stop to the formor and the latter will lift and pass away.

Hops in Tasmania.—A part of our summer's export of hops went to New Zealand. Although the inhabitants use some of our growth they are well started in the production themselves. We read in an English exchange as follows: To show the extent to which hop growing is carried on in Tasmania, in the New Norfolk and Hobart Town districts there are some 2,500 persons, chiefly women and children, employed in picking. All these earn from four shillings to five shillings per day at the prices paid by the proprietors of the hop grounds.

Fine Stock.—We call attention to the advertisement in this issue of Saxe Bros., who offer for sale some fine thoroughbred stock. Saxe Bros. have a reputation as fine stock importers, which recommends anything they offer as worthy of examination.

California's Birthday.

The 9th of September is an important day in the history of California, since, on that date, in the year 1850, the State was admitted into the Union. It was ceded by Mexico to the United States in 1848, but so rapid was its progress that in two years it became a full-fledged State. This rapidity was mainly due to the discovery of gold, which attracted thousands of adventurous spirits to the new El Dorado. A State government became soon necessary, from the confusion attendant on the existence of the old Spanish laws, by which the property and affairs of the settlers had hitherto been settled. Shortly after the formation of a State government, however, everything went on smoothly enough, with the exception of the trouble caused by the Mexican land grant system, the evils of which are yet felt.

Californians can look back with pride and gratification at the progressive record left since their State joined the sisterhood of States. Previous to the occupation by Americans, the fair valleys, productive hills and boundless forests were comparatively useless to the meager population which was scattered over the land. In few instances was the soil tilled at all. Mines were unknown, and the principal industry—if so it can be called—of the people, was in tending the flocks and herds which roamed at will over the broad territory so soon to be subjected to the implements of the miner and farmer. The few short years intervening between the discovery of gold and the admission of California as a State wrought a wondrous change. The adventurous, energetic Americans came in numbers and roused the lethargic, conservative natives from their sleep of centuries, showing them the hidden wealth of the land and completely changing the customs, laws and everything else from what it had been. They speedily scattered into every corner of the State, each unearthing some new product, cultivating the land and digging down into the bowels of the earth in search of nature's hidden treasure.

The result of these labors is seen to-day. A proud city whose ships go to every quarter of the world, whose merchants trade with all nations, and whose manufactories furnish necessaries to the whole territory west of the Rocky mountains. A city beautiful in architectural adornments built on a site which twenty-five years ago was a waste of sand, one which ranks in wealth and population with the large cities of the world and which bears the reputation of a material progress more rapid than history speaks of. Hundreds of thousands of acres under cultivation by an industrious agricultural population, thousands of mines being worked in every direction, manufactories for the utilization of raw material built, and evidences of thrift and prosperity of the people on every hand.

From our abundant wheat crops we have enough to spare to employ hundreds of ships in carrying it to the marts of Europe to feed the people there. The capabilities of the soil having been proven, we raise grains, fruits, vegetables, etc., of nearly every imaginable variety and more than we want ourselves. Our mines have produced since their discovery upwards of $1,763,000,000 in gold and silver, and the value of our agricultural products no man can compute. Our manufactories, though few as yet, are prosperous and increasing. We have within the State upwards of 1,500 miles of railroad, while steamers and vessels navigate our streams in all directions. The State not only supports its own population, but is sufficient of a producer to send a variety of things to those outside its borders.

All this we see has happened within a quarter of a century, and still we progress. California is to-day in a more prosperous condition than any State in the Union. The people are well-to-do, and what is more, we have room for many others to come and prosper too. Those who have come to us within late years may not see the steps which have been made so plainly as those who have resided here long, but still they can see enough to prove that Californians have something to be proud of in the advanced and progressive position of their State.

The Winchester Rifle.

In these days of "wars and rumors of wars" it is well that every man should be accustomed to the use of weapons, and to our readers it is especially necessary in many instances to protect their stock from the depredations of marauders, either two or four legged. In this age of improvement it also becomes us to keep up with the times, and not go to practicing with the Queen Anne musket of flint-lock persuasion, with the expectation that we are thereby rendered capable of coping with a horse thief or burglar armed with Colt's repeaters, or a grizzly bear enveloped in his shaggy hide and his vital parts protected by arching bones of the heaviest pattern.

That which will make us equal in the conflict is what we want, and to ascertain what weapon will do this is the object of this article. In our advertising columns will be found cuts of the celebrated Winchester repeating rifle of the 1873 pattern, than which no more effective arm is now known to the American sportsman. Being a combination of two patents, further improved after several years' trial, they are the perfection of fire arms for sporting and target use. Strong, simple, effective and rapid in action, the grizzly that faces one in the hands of a skilled marksman has numbered his days and will molest the flocks and herds no more.

A friend at our elbow tells us of one man killing five bears in one pile before the brutes could jump to their feet and scatter, with one of these guns. He purchased one last fall and at Christmas for the first time tried it at a turkey match, and carried off six turkeys as the result of seven shots at 225 yards with rest and open sights. It has proved itself equally good with deer and small game.

Mr. Walker has a cactus pulp mill at work near Soledad canyon, on the line of the Southern Pacific railroad. It cost $30,000. He turns out a large quantity of pulp, which is shipped to Maryland, but he proposes putting up a paper mill and so utilizing the cactus fiber on the spot.

An Improved One-Rail Railway

The accompanying illustrations show the details of construction of a new and improved car for single-rail railways, invented by David B. James of Visalia. The invention consists of one line of broad-faced wheels in the center to carry the load, and guide-wheels to run each side of the rail on vertical axles projecting down from the car, the wheels being to keep the carrying wheels on the track and to prevent the cars from overturning, for which they are contrived to gripe the rail with more or less force. The wheels are connected with a platform which is carried only enough higher than the rail to clear it properly, and the car is mounted on pivots arranged in the line of the wheels and supported on the platform so that the load is balanced on the wheels and the center of gravity is lowered as much as possible to prevent overturning. The guide wheels running against the sides of the rails are contrived to move forward and from the rail, and provided with springs to keep them in contact. In the locomotive they may be geared with the power, and have a lever contrivance for gripping the rail tightly for traction on steep grades.

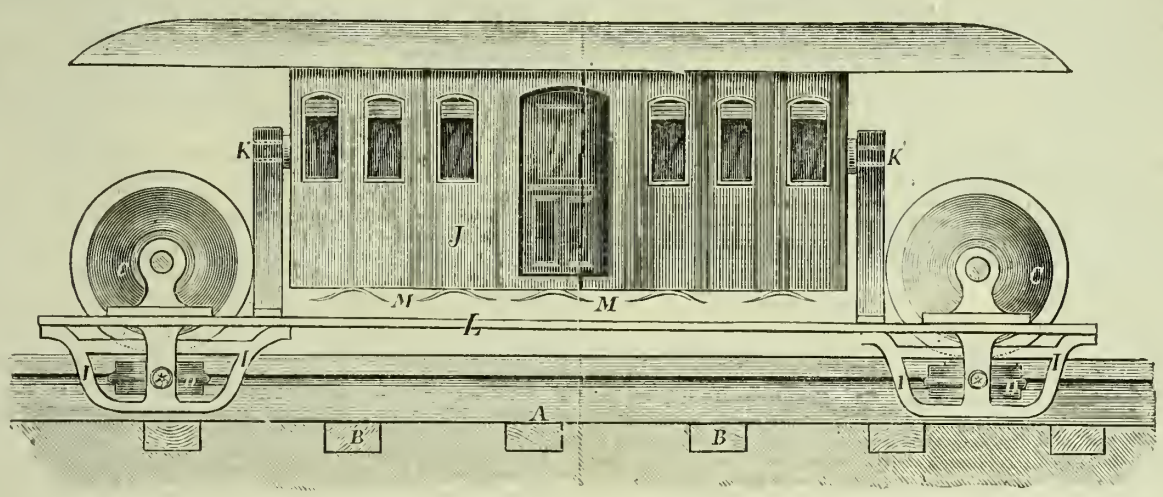


FIG. 1. ELEVATION OF JAMES' PATENT CAR FOR ONE-RAIL RAILROAD.

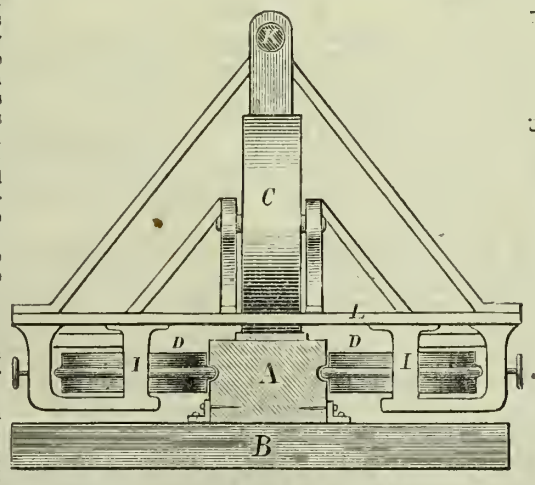


Fig. 2. End View of Wheels, Guide Wheels, etc.

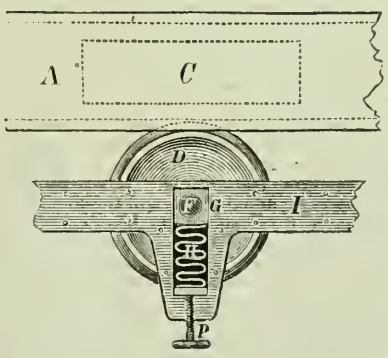


Fig. 3. Arrangement of Guide Wheels

Figure 1 of the engravings is a longitudinal sectional elevation of the improved railway car, showing the guide wheels, ridged and running in a groove in the stringer. Figure 2 is a horizontal section, giving an end view of the car and track, stringer and ties, with side wheels, the ridges in which fit into the groove in the stringer. Figure 3 shows the arrangement of the side or guide wheels with the set screws and spring to regulate the force against the stringer.

In the engraving, *A* is the single rail, of wood, which may be of a single timber, or it may be shod on top with another, to be removed from time to time when worn, the removable one being, say from two to three inches thick. *B* represents the ties, which may be of any suitable kind. *C* represents the carrying wheels of the car; *D* the wheels for guiding it, and preventing it from overturning, the latter wheel s being mounted on vertical axles, *F*, projecting down from the car body or supports, *I*. so that the wheels run against the edges of the rail while the wheels, *C*, run on top. The axles, *F*, are mounted in bearings, *G*, which are movable toward and from the rail, and have springs to press them against it, by which they are accommodated to variations in the thickness of the rail, and allow the car to turn curves readily without requiring the wheels, *C*, to be mounted on a pivot, or fifth wheel.

The car body, *J*, is mounted on the pivots, *K*, supported on the platform, *L*, which is suspended from the axles of the wheels, *C*, the said pivots being arranged in the longitudinal plane of the wheels, *C*, so the center of gravity of the load remains more on the wheels than it otherwise would, and the car is more certain of keeping erect in case the load is not trimmed nicely, or the car is jarred or otherwise forced laterally. But to prevent the car from rocking too much on the pivots and also to prevent it from striking too hard on the platform in case it does rock, buffer springs, *M*, are attached to the under side of the car body so as to strike the platform, or they may be applied so that the body may strike against them.

The platform will always run level on account of using only one rail and employing the guide wheels to direct the car, which avoids the necessity of tilting the car as on the curves of the roads of two rails, and thus the difficulty of carrying the cars upright on a single track is greatly diminished.

If considered necessary, the carrying wheels may be banded with rubber to prevent wear of the wood rails and for running smoothly, but it is believed that the broad surfaces will wear so little as not to need it. By gearing the guide wheels of the locomotives with the driving wheels, and employing levers to cause them to gripe the rails, very steep grades may be ascended. Very abrupt curves can easily be overcome by means of this system, as can, of course, steep grades. The engineering difficulties of a line in a mountainous country could therefore be overcome by it, like a narrow gauge road overcomes the difficulties of a broad gauge under such circumstances. The stringer is fastened to the ties with iron knees. In figure 3, the spaces between the heavy spring, *H*, may be filled with rubber wedges. The set screw, *P*, works against a plate that works against the upper and lower springs to regulate the force against the stringer.

As any one can see, the construction of a road such as this would be very simple and cheap. In a well timbered country the whole road could be made of material near at hand. As branch roads from small towns, this system would be advantageous, as heavy loads can be carried with a small expenditure of power. Almost any one can see the advantages possessed by a road of this kind under certain circumstances. Those desirous of further information can address the inventor as above.

Useful Information.

The Game Law.

As the game season approaches, mnch interest is felt by sportsmen to learn the changes in the laws with regard to killing game that were effected by the last Legislatnre. The new sporting journal, the *Pacific Life*, gives the following synopsis of the laws on this subject as they now stand, which will no donbt be found to be correct:

The close season for salmon commenced August 1st and extends to November 1st. Under the law pssed at the last session of the Legislature it is msde a misdemeanor to catch, transport or have in possession fresh salmon during this period. The penalty for a violation of the law is from $20 to $200, and this is divided between the informer, the prosecuting attorney and the school fund of the county.

Every person who, between the first day of January and the first day of September of each year, takes, kills, or destroys any elk, deer, mountain sheep or antelope, is guilty of a misdemeanor; snd every person who shall take, kill or destroy any of the animals herein mentioned, at any time, nnless the carcass of such animal is used or preserved by the person slaying it or is sold for food, is guilty of a misdemeanor. Any person catching or having in his possession, or offering for ssle, shad, at any time prior to the first Monday of December, A. D. 1877, is guilty of a misdemeanor. The following counties arc excepted from the provisions of this section: Del Norte, Hnmboldt, Shasta and Mendocino.

Section 626 of the Penal Code was amended last wintcr to resd as follows: Every person who, in the counties of San Bernardino or Los Angeles, betwecn the first day of April of any year and the first day of August of the same year, or who in any other of the counties of this State, excepting the counties of Lassen, Plumss and Sierra, between the fifteenih day of March and the fifteenth day of September, in each year, takes, kills or destroys quail, partridge or gronse, mallard, woodteal, spoonbill, or any kind of broadbill ducks, is guilty of a misdemeanor.

Section 631. Every person who, between the fifteenth day of October in each year and the first day of April in the following year, takes or catches any trout, is guilty of a misdemeanor.

Section 632. Every person who, in the counties of Santa Clara, Alpine, Santa Cruz, Lake, San Mateo, Monterey, Sonoma, Tnolumne, Alameda, Msrin, Placer, Nevada, Plnmas, Sierra, San Luis Obispo, Solano, Mariposa, Mendocino or Napa, at any time takes or catches any trout, except with hook and line, is guilty of a misdemeanor.

Section 633. Every person who takes, catches or kills any trout by the use ot nets, weirs, baskets or traps, is gnilty of a misdemeanor.

The penalty for the violation of the law is as follows: Except in cases where a different punishment is prescribed by the Code, every offense declared to be a misdemeanor is punishable by imprisonment in a county jail not exceeding six mouths, or by a fine not exceeding $500, or by both.

How Wounds are Produced.

Many cases are coming up continually before coroners and coroners' juries which require judgment to be pronounced on the probable cause of death wounds.

Dr. William Macewen, in the Glasgow *Medical Journal*, gives a careful study of 71 cases, including 104 wonnds, produced by 51 different articles. He concludes:

1. Blunt instruments sometimes produce scalp wounds having straight outlines and sharp clean edges, which in these respects could not be distinguished from the wounds produced by sharp cutting instruments.

2. Scalp wounds, which exhibit entire hair bnlbs projecting from the surface of their sections, have been produced by blunt instruments.

3. Wounds exhibiting nerve filaments, or minnte blood vessels bridging the interspace between the lips of the wound toward the middle of the depth of the section, while the tissnes have receded all aronnd them, below as well as above, have been produced by blunt, non-penetrating instruments.

4. When a wound, even with sharp, well-defined margins, bears in contour a resemblance to an osseous ridge in close proximity, there is a *probability* that it was produced by a blunt instrument, through forcible impact against the underlying osseous ridge.

5. *Cut* hairs found in the immediste vicinity of a wound are valuable aids in determining whether a sharp or blunt instrument has been made use of.

6. As to the diagnosis between wounds prodnced by instruments of the knite kind and other sharp-edged substances, snch as glass, earthenware, etc., no dependence csn be placed on the mere regularity of outline or sharpness of edge, or the reverse.

7. Sharp, clearly defined wounds, in certain cases, present peculiarities in their termination which may be sufficient to enable a probuble diagnosis as to whether they were produced by a knife or portion of glass or earthenware.

8. The same instrument used by the same person in delivering several successive blows may produce wounds of different characters.

Remedy for Small-Pox.

Small-pox is epidemic in Southport, England, at present, as it is here, and Edward Hine, a Wavertree correspondent of the Liverpool *Mercury*, sends the following to that paper, and the recipe which it contains may be of service to the suffering in this city:

No disease is so repulsive as the small-pox, and none so generally dreaded. It is well known that it is much about our town and suburbs. I am willing to risk my reputation as a pnblic man if the worst case of small-pox cannot be effectually cured in three days, simply by cream of tartar. This is the sure and never-failing remedy.

One onnce of cream of tartar dissolved in a pint of boiling water, to be drnnk when cold, at short intervals.

It can be taken at any time, and is a preventive as well as a curative. It is knowu to have cured in a hundred thousand cases without failnre. I have myself restored hundreds by this means. It never leaves a mark, uever causes blindness, and always prevents tedious lingering. It is so effectual that if popularly used would dispense with the unnatnral law of vsccination and the costly staff of vaccinators, for small-pox never appears without a need, and then onght to be purifying and healthful to the system; and when capable of being so qnickly removed need never be feared above a cold or an overflow of bile.

Like the identity of the British with lost Israel, it is too grand, too simple, and too good to be quickly accepted by the people; and the doctors, as the ministry to the identity question, laugh at the remedy, because it interferes with the old rontine of their customs, and has not emanated from themselves. Nevertheless, if the people would only try it, and report all the cures to you, you would roqnire to employ many colnmns if you gave them publicity.

Unwholesome Ice.

There is danger in ice from impnre water. The evidence we find in a recent report to the Massachusetts State Board of Health, by Dr. A. H. Nichols, concerning the outbreak of an intestinal disorder among the guests at one of the hotels at Rye Beach in the summer of last year. The symptoms were those generally following a derangement of the digestive system; such as nausea, giddiness, loss of appetite, diarrhea, abdominal pain aud fever. With abont five per cent. of the guests, these symptoms were grave and persistent; among the great majority, and notably with children under ten years old, there was no such illness, and there were no traces of it at the other hotels and in the cottages at Rye Beach. The sewerage of the hotel was first carefnlly investigated, and then the water snpply, the proprietors of the hotel lending eager aid to thorough research; even the kitchen and its processes were overhauled without finding the canse of trouble. At last it was discovered in the ice with which the hotel was supplied. This had been procured from a pond of which the outlot had in recent years been closed by sand and stones w shed up from the sea, the pond thus becoming a stagnaut receptacle of mud and sawdnst, there being two sawmills on the stream above. The ice was subjected to chemical analysis, and was found to contain putrescent vegetable matter. The hotel stopped using this contaminated ice, and there was an end to the sickness among its boarders. The report concludes by mentioning that there is a common but quite mistaken popnlar notion that when water freezes its impurities are somehow excluded from the ice. The moral is so obvious that it need not here be stated; but in a general way it may be worth while to summarize the tact that water which is not perfectly fit to drink is unsnitable for an ice supply.

A New War Vessel.—Mr. W. Pollexfen has invented a war vessel which he claims is "unsinkable." He proposes to construct the hnll of solid timber in longitudinal and transverse layers alternately, with the butts properly shifted, bolted together, and all calked watertight; ontside he proposes to have 4-inch thick oak or teak planking runniug fore and aft, and this sheathed with copper or yellow metal plates. In the center of this solid arm will be formed compartments large enongh for machinery, coals, ammunition, stores, crew space, etc.; all these compartmeuts, as well as screw shaft tunnel, to be plated with 12-inch thick armor inside, snd all passages for suction and discharge pipes to and from the engines to be also armor-plated. The uecessary provisions are made for protecting the structnre from annihilation by fire and from damage by the enemy's shells. To judge from the drawings contained in the psmphlet there is much to justify the inventor's belief that "this type of vessel will be the man-of-war of the fnture."

An Agricultural Advertisement.—Probably the largest advertisement in the world is that of the Glasgow *News*, which displays its name on the slope of the Ardenlee, Scotland. The length of each letter is 40 feet; the total length of the line 323 feet, and the area covered is 14,845 feet. The borders of the letters are shown with a pure white flower, the center is set with dwarf beet, the dark purple of which shows well at a distance, and on eaoh side of this there is a row of light purple candytuft.

A Matter of Controversy.

We print below a complaint which one of our readers makes against oneof our city seedsmon, and his reply to the charges. We have no opinion to express on the matter; the reader must draw his own conclusions. But we must state it as our conviction that a newspaper is not the proper medium for settling business difficulties of this kind:

Editors Press:—I have been defranded shamefully, and that, too, by one of 'Frisco's well known business men, R. J. Trumbull by name, and by your permission I will take this method of warning my fellow farmers. Three different times has he beaten me; three times and out. But let me explain.

Abont two years ago I sent a small order to him for seed, throngh a sister of mine. He sent most of tho seed in dne time, but one or two kinds he said he had not at the time, but would have them soon, *then* he would send them. I never heard from him again on *that* subject.

Mr. Trumbnll advertises certain slightly damaged books for sale; among them may be found "Langstroth on the Honey Bee." I sent the money to him for that work. He ssid he was "ont of that," (I see he still advertises it), but sent me a little psmphlet on bee culture, costing 25 cents, instead; the balance of the money he kept.

These two little cases of dishonesty are very small in themselves and not worth speaking of aloue, bnt *now* I come to the chief cause of complsint.

In June last I sent him a draft for $20, requesting him to send me the worth of it in old Early Rose potatoes for seed. In due time I received answer that he had none, nor were there any in the market.

I then requested him to send me the best variety of early old potatoes to be had. After waiting some time I again wrote him, saying if he had not already sent those potatoes not to send them, but refund the money, as it was growiug late to plant them. In a few days more I received—not potatoes, but five sacks of water and manure which once had been potatoes. Where they lay in the depot was a great pool of water which had run out of them.

Not only did he send me rotten and worthless potatoes, but charged me $3 25 per cental for them, while at the same time our Press was qnoting old potatoes at "any price," or from three to six bits per cental. Besides, I paid freight on them, over six dollars, making $26 and upwards I am out of pocket, and not benefited one half penny. I thonght, surely Mr. Trumbull would not knowingly send such potatoes, therefore I sent him word informing him of their condition, but although he has had ample time, he has not deigned to reply to my note. Now, brother farmers, I call that a clear case of dishonesty—am I not right?

C. B. Caldwell.

Bakersfield, Cal.

Mr. Trumbull's Reply.

Editors Press:—I am glad yon afford me an opportunity to answer the charges of "shamefully defrauding" Mr. C. B. Caldwell. With your permission I will snbmit my explanation and leave the reader to draw his own conclusion.

I will grant that Mr. Caldwell is correct on his first charge, and yet I have no evidence that he is, but I simply take his word for it. Admitting that I failed to send him "one or two kinds," which in value would amount to 20 cents, I have this to offer by way of explanation, and make a quotation from my last catalogue, to which Mr. Caldwell's special attention is requested:

"Every possible precantion is taken to prevent any error being committed in the exccution and transmission of orders. Should, however, as is rarely the case, any deficiency occur, either from press of business or accident, we will thank our customers for informing us of the fact, and hasten to correct it. We crave indulgence, and assure our customers that their orders will be executed with the least possible delay. Sometimes we are obliged to execute orders only in part. This arises from the fact that some of our stock catalogued has not come to hand. Many of our seeds are procured from forcign countries, and they do not always reach us just at the time expected. The balance of such orders, however, will be sent forward as soon as received."

Our seed season opens about four months earlier than it does in either the Eastern States or Europe. It being my desire to only sell seeds that are absolutely fresh, I invariably accompany my orders, when collecting my stock, with positive instructions to send the *present season's growth*. In doing thus particular, my order remains unfilled till the seed is collected from various quarters, and when it is ready for shipment to me, our season has usually been open about two months. Hence, when orders are received from customers in the early part of the season, if all can be sent, it is well; otherwise what we have goes forward, and the balance is forwarded as soon as the seed arrives, and the order from the customer is placed on file, as a constant reminder. In this instance the order probably was misplaced; but had Mr. Caldwell called our attention to it long ago, long ago it would have been attended to. Even now, if he will repeat his order for the balance owing him, it will be filled and good interest allowed.

In reference to second charge, I have this to say: True—I advertised "Langstroth on the Honey Bee," in connection with other books, at half publisher's price, and when Mr. Caldwell sent me 75 cents for one of these books, I discovered that the stock of this book was entirely exhausted, and wrote to Mr. Caldwell to that effect. He replied by asking me to procure for him the 25 cent book. This I did in person, finding it after one and a half hours' trainp, and paying for it just the price which was printed on the little page—25 cents. This book was mailed to Mr. Caldwell at an expense to me of six cents for postage and an hour and a half's time, and he was informed that a balance of 50 cents remained to his credit and subject to his order. He has not as yet made a demand for this amount.

To Mr. Caldwell's third and most serious charge I have this to say: While absent from the city, a letter, dated June 13th, was received from him. It reached my office on the 14th, and was answered on the 15th. This letter contained $20 currency, with the request that "old Early Rose potatoes," for seed, should be shipped to Mr. Caldwell's address. "If," he says in his letter, "there are none to be had in the market, send me word immediately, and hold money till you hear from me again. Send none but old Early Rose."

On my return I found this letter of Mr. Caldwell's on the order file. I asked my book-keeper why it had not been filled. He replied that the city had been searched and none could be found, and that he had written Mr. Caldwell to that effect. A half day was at this time spent in search of these potatoes. On the 4th of July (4th and 5th legal holidays,) I received a postal card which was dated June 30th, in which Mr. Caldwell says: "Am disappointed that you cannot send me Early Rose potatoes. I see by the Press that old potatoes are selling at any price, so I hardly know how to order, etc." On the afternoon of the 6th and forenoon of the 7th, I went in pursuit of Early Rose potatoes, hoping if possible to accommodate Mr. Caldwell, for the furnishing of potatoes by me is always by way of accommodating customers, for our profit never pays for the trouble. I found one of our leading commission houses had about 20 sacks. I saw them and noted that they were sprouted, shriveled, and some of them a little moist. I did not expect to find them in any other condition, nor would any person on the 7th day of July. The commission merchant stated they were selling them at three and a quarter cents, but would make them three cents to me, as they were willing I should make a little profit, at the same time promising to overhaul them and sack only those that were dry. That this was done I am confident, for when the drayman went after them the next day to haul them to the depot for shipment, he found men picking them over, and was obliged to wait till it was done before he could load them. That the potatoes were dry and in as fair condition for shipping as possible in the nature of things, I have the testimony of the drayman as well as the reputation of the parties from whom the purchase was made. The potatoes were shipped on the 8th, and on the 10th I received a postal card from Mr. Caldwell, in which he said: "If you have not yet sent them, (the potatoes,) please return my money, as it is getting too late to plant." At the time this card reached me the potatoes had doubtless reached Bakersfield. On the 18th I received a letter from Mr. Caldwell, written on the 15th, in which he stated that "two-thirds" of the potatoes "were rotten and that they left a puddle of water in the depot where they laid." To this last letter a suitable reply was made on the 20th, though Mr. Caldwell in his communication to you, Messrs. Editors, states that I had not deigned to reply to his note. It is my custom to note on the face of all letters the date on which they are received, and also immediately under it the date on which the letter has been answered. This letter is now before me as "received July 18th, '76;" "Answered July 20th, '76."

I have to add further that the potatoes when shipped "were in good order." On this I have conclusive evidence. My drayman would not have loaded them had they not been in proper condition, because he knew that he could not have shipped them. In the second place, the railroad would not have received and given their receipt for them had they been in the soft rotten condition described by Mr. Caldwell. That the potatoes were in good condition when shipped is evident from the triplicate receipt signed by the railroad company, one of which they kept, the second of which was sent to Mr. Caldwell, and the third of which is still in my possession. It is the custom of the railroad company to mark on the face of a shipping receipt that goods are in bad order, and at owner's risk if such be their condition; and if Mr. Caldwell finds any evidence of this on the receipt sent him I will refund him the whole amount. My responsibility ceased after receiving the railroad company's receipt. I do not deny, for I do not know, except as the statement is made by Mr. Caldwell, that they arrived in bad order; but it was his duty to collect damages from the railroad company. Certainly, with his eyes open and looking on that "great pool of water," he should not have paid $6 freight charges. The potatoes may have been damaged on the way by coming in contact with a leaky cask or something else, but whatever affected them on the journey cannot in anywise reflect on me. The order was executed in good faith and in confidence that it would give satisfaction. That it has turned out otherwise none regret more than myself, who have abundant evidence that the shipment was made in good order.

To sum up, I find myself indebted to Mr. Caldwell to the extent of two packets of seeds worth abont 20 cents, and 50 cents balance due on the bee book, both of which he might have had long since on demand, without magnifying them into the character of frauds, and so charging through your widely circulating paper. I find that I have made $1.50 profit, or rather that I received through my business connections with Mr. Caldwell, and against which I have spent one day and one and a half hours.

R. J. Trumbull.

San Francisco, Aug. 30th, 1876.

A Crane to Lift 160 Tons.—An English company has lately made a hydraulic crane for the Italian government which will lift 160 tons. The platform of this crane revolves upon a live roller frame of 43 feet diameter. At the rear of the platform is a counter-weight box, carrying about 350 tons, to counterpoise not only the weight of the crane itself but of the load, so that no lifting strain is brought upon the central pivot. The crane stands upon a masonry and concrete pedestal, 20 feet high and 50 feet diameter, the outer wall of which carries the path on which the live roller ring runs, the center being hollow, and serving as a house for the boiler and pumps supplying the water-pressure for working the crane. The work of lifting is done by an inverted hydraulic press, hung in gimballs, on a system invented by Mr. Rendel. The pumps are arranged to act direct upon the lifting press and turning engine of the crane, without the intervention of an accumulator. The crane is revolved by an hydraulic rotary engine, which also drives a winch connected with a chain passed over a pulley on the head of the jib, and available for lifting light loads. The rake is 65 feet, so that the crane commands a very large surface.

Wool Greasing.—A Mr. Lebrun mentions, in a German paper, that a considerable quantity of oil may be saved by the following process of oiling wool, besides insuring a more uniform and regular web, on account of the woolen fibers loosening and separating themselves more easily from each other. Moreover, this plan, it is said, is not open to the objectionable features of some processes, which sometimes cause the total disappearance of fine color dyes; and the cards wear longer and better, besides allowing the wool to be more easily and economically cleaned. To obtain this preparative, pour into a wooden trough 20 parts oil, with 10 parts liquid ammonia, adding five parts of water. Stir up this liquor with a wooden spoon, and, by inserting a steam pipe, allow the same to boil until the strong smell of ammonia has evaporated, after which the oiling or greasing may be proceeded with in the usual manner.

Shooting-Stars.

As the period for meteor gazing is approaching, we take from an article by Prof. C. A. Young, in the *Journal of Chemistry*, the following paragraphs: "Meteors are very small, for the most part, as Newcombe and Harkness have shown, weighing certainly not more than a few grains, and possibly only some thousandths of a grain, mere particles or cloudlets of dust, which are traveling in space under the same laws as those which govern the motions of the planets and comets, and with a velocity as great; varying in different cases from eight or 10 miles per second to 40. The least velocity named is more than 30 times that of a cannon ball. When they encounter our atmosphere this velocity is destroyed by the resistance, and, according to well-known laws, their energy of motion is converted into heat of intensity sufficient to render them incandescent, and even to dissipate any solid portions in vapor.

It is the amount of light they give which furnishes the evidences as to their minuteness, but it would take too long to show just how the conclusion is arrived at.

Their numbers are very great. It is found that one observer will on the average see from four to six per hour at any given place, and careful experiment shows that a single person sees about one-eighth of all that could be seen by a sufficient number of observers so placed as to watch minutely every portion of the sky. About 40 per hour is therefore a fair average for one station, or nearly 1,000 each day. If the calculation is carried out for the whole earth, allowing that at each station all are observed which come within a circle 200 miles in diameter, we find that the total number which reach the earth daily is about 5,000,000; indeed, Prof. Newcombe, who is perhaps the highest authority on this subject, sets the number still higher, at 7,500,000. A curious fact is that the hourly numbers increase from sunset to sunrise by some 50 per cent. The reason is simply that in the evening we are, so to speak, behind the earth as it rushes through space, and see only those which overtake us; in the morning, on the other hand, we are in front, and see all we meet, as well as those we overtake.

Of course, if meteors are thus perpetually entering the atmosphere, it is natural to ask, What becomes of them? Do they reach the earth? Probably, as impalpable dust. Nordenskiold, during the recent arctic expedition, examined with great care quantities of snow from regions apparently beyond the reach of all human adulteration, and on melting the snow and evaporating the water he always found a residue consisting largely of iron and its oxides. This he considers to be of meteoric origin, and it is not improbable, considering how important a constituent iron is found to be in those larger masses, the aerolites, which from time to time fall upon the earth and are collected into our cabinets.

Influence of Climate on Indian Corn.

In his review of the botanical features of the Centennial, Thomas Meehan writes: An interesting fact has been brought out by Professor Miles, of the Illinois industrial university, in regard to Indian corn. He was anxious to find out the most popular varieties in certain States; and he has the varieties arranged according to geographical popularity just as they run. Those acquainted with the morphology of an ear of corn know that the male (tassel) and the female (ear) are both structurally on the same plan. In the flint corn, the kinds most popular North, the tassel is composed of eight leading branchlets, along which the male flowers are arranged. To form a female spike, these eight are drawn upward, fasten themselves together by the backs, and by this union gain comparatively increased succulence; and what would be male flowers when separate become female united, and the result is an eight rowed ear of corn. In the Southern forms the branchlets of the panicle fork; and so when drawn up to form an ear, we have double the number—10, 12, but generally 16 rowed ears. Now the eight rowed corn is found most profitable from Canada to the southern part of New York State; after that the 16 rowed comes into favor. By studying Professor Miles' collection we learn for the first time why this is. In the north the grain is very large in proportion to the size of the cob; but as it gets south the cob thickens, at the expense of the grain. Why there should be this inverse influence is not clear; but the fact is evident; and it is one of the most interesting instances of the operations of climate on changing form that I have met with. Another similar fact is in relation to the production of the glumes. In Indian corn generally they are not needed, because the leaves are transformed into a husk, which envelopes the whole spike on which the naked seeds are arranged. There is a kind on exhibition here which pushes the spike out of the sheath or husk; and in this case the glumes are developed and form a covering to each seed, as in the case of wheat or oats or other grain. I believe this singular kind is called "Rocky mountain corn," but why I do not know. To many the appearances of these many varieties of corn, so seemingly different and all from one original, is astounding, while those who are very enthusiastic on developmental theories love to refer to them. But, in truth, the morphological differences are not very great. It is the appearances that are deceptive. The morphology of the male from a female primary flower shows a much more striking change.

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AMERICAN MANURES, OR FARMERS' AND PLANTERS' GUIDE.—Comprises a description of the elements and compositiou of plants and soils; the theory and practice of composting; the value of stable manure and waste products, etc. Also, a chemical analysis of the principal manufactured fertilizers—their assumed and real value—and a full expose of the frauds practised upon purchasers. By Wm. H. Bruckner, Ph. D., Phila. Sold at this office. Price, $1.75; post pald.

THE THRESHERS' GUIDE, by D. W. Hollihan, a practical operator with threshing machinery in California and other States. A book of useful and friendly hints to the grain growers, machine owners and threshing superintendents and workmen. Published at the RURAL PRESS office, in 1872. Price, $1; in limp cloth binding, 75 cents; postage paid.

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

THOUGHTLESSNESS.—Persons sometimes return thei paper, marked "stop this paper." Their name being pasted on the sheet they think that is all we need to be able to cross their names off. Now that is thoughtlessness. Your P. O. address is needed as much as your name. We have thousands of names arranged only according to locality. Our mailing clerk does not know where everybody lives.

GOOD PRINTING INK.—We prefer Chas. Eneu Johnson's printing inks, having used them on this paper for the past four years. H. S. Crocker & Co., printers, stationers, blank book and paper dealers, are Johnson's S. F. agents.—DEWEY & Co., Publishers.

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Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

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Mr. Lee H. Utt, of Pala, San Diego county, offers for sale a share in his valuable place, consisting of 320 acres, and situated as described above. There is an Apiary on the ranch in successful operation. For this business it possesses marked advantages. Twenty acres are seeded to alfalfa and eight acres are in vines. The place has growing on it 420 trees, many of them in bearing.

The owner will warrant the Cavendish Dwarf Banana to grow as well here as in Florida. He has three now growing. The pasture now enclosed will keep 50 head of cattle. The ditch—which is large enough to run a mill—is stocked with trout, and has a fish pond 100 feet square, and full of fish. There is a nice warm spring, with bath house; the water contains sulphur, salts and iron.

The place possesses great natural advantages, and the present owner has not spared money nor labor to improve; but being a valetudinarian he is not strong enough to attend to the work. To the right kind of a man a rare opportunity is here offered. To such a person as will come in good faith he extends the invitation to stop on the ranch long enough to become familiar with its characteristics and capacities.

Parties can refer to I. Nast, stock broker, San Francisco, or to anybody of note in San Diego. The place bears the name of "Aqua Tibia." Address,

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These lands are in the great fruit belt of Los Angeles County,—only six miles from the city are peculiarly adapted to semi-tropical fruits, and adjoin the famous Lake Vineyard of Hon. B. D. Wilson. The Southern Pacific railroad runs through the land; convenient to schoolhouse and church; water in abundance, and the water-right is sold with the land. Title perfect. A Map of the tract may be seen at the office of Mayor Beaudry, on Spring street, opposite City Council rooms. References may be made to HON. B. D. WILSON or J. DE BARTH SHORB, at Lake Vineyard, who will take pleasure in showing the lands. Also, to MAYOR BEAUDRY or D. FREEMAN, Los Angeles city.

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FOR SALE—My POULTRY BUSINESS, with my Farm of 115 acres; 22 acres of Vineyard and Orchard; House of 10 rooms; Barns; Granaries; 30 Chicken houses.

Receipts between $3,000 and $4,000 a Year,

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In view of above I offer a few fine Fowls, Bronze Turkeys, etc. (not included in breeding pens and stock sold with farm), at reduced prices.

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410 Acres of the Choicest Land in Butte County, four miles from Chico, on Butte Creek.

300 acres grain land, the balance garden land; will grow corn, cotton, hops, potatoes or garden vegetables. A ditch from Butte Creek conveys water upon the highest land; nearly the whole can be made into gardens, or could be easily seeded to alfalfa. The water right will be sold with the farm. The title is perfect. A large part of the price might remain on mortgage. Unless sooner disposed of at private sale the farm will be sold at auction, September 20th. For particulars, inquire of

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THE WHOLE OR ONE UNDIVIDED HALF INTEREST, AT $32 PER ACRE. FENCED IN FIVE FIELDS. LIVING WATER IN EVERY FIELD. ORCHARD AND VINEYARD IN BEARING OF CHOICE VARIETIES. BUILDINGS GOOD. TERMS EASY. GREAT BARGAIN.

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Continued from Page 169.

play in this building. The formers of artificial flowers have sent nnmerous contributions in wax and large quantities of natural flowers, preserved, chemically and otherwise. These preserved flowers consist chiefly of funeral wreaths, harps, crosses, etc., which have been carefully preserved as mementoes of those who have gone hence to that land where the flowers never fade, and where sin and sorrow are never known.

The Great Floral Display of the Season

Was made about the last of May, in the floral "annex" to the horticultnral building, by Anthony Waterer, of Snrrey, England. This display consisted of some 135 varieties of rhododendrons, amoug which were nearly 1,000 different specimens in fnll bloom. This sight, alone, was well worth a visit to Philadelphia, and was such a floral exhibit as was never before seen in America and may never be seen here again. It was not only a thing of beauty but it was really a joy forever, for no one who saw it can ever forget those lovely combinations of charming tints, and the gorgeous richness of the thousands of masses of bloom which were there presented to the eye of the beholder. The bnilding in which the exhibit was made was also happily conceived. It consisted of a Gothic arch of frames, springing directly from the ground, and covered with canvas instead of glass, by which a mellow, softened light was produced, free from the glare and heat usnally met with in a conservatory. It was perfectly delightful to wander throngh the winding paths of this structure, the grounnd in which was thrown into graceful curves of unevenness, and the paths bordered upon either side with groups and masses of the plants, all topped with branches of bloom, rich with every conceivable tint of color from the most delicate through every shade of pink to the deepest red of carnation. To stand upon the raised bank at the furthermost extremity and look down upon that gorgeous mass of varied color before and below, was one of the richest sights which the lover of color and of flowers could desire to look npon.

Horticnltural hall and its surroundings, inclnding the deep and shady recesses of Lansdowne ravine, is a most delightfnl retreat in which to rest the head and eyes after wandering through the other great buildings, filled with machinery and all the varied products of art and indnstry. There, amid winding walks bordered with trailing vines and trees and flowers of every hne; amid shady recesses, running brooks and sparkling fountains, the lover of nature delights to tnrn away from the practical to the beautiful, and linger awhile where Flora reigns supreme. Here Patrons are reminded of all that is beautifnl and good in onr noble Order. From here Laborer and Husbandman, Matron and Maid may carry to their distant homes, in the broad prairies or on the mountain slopes, some new ideas that will bud and blossom and add new attractions to garden, field and lawn. W. B. E.

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A Free Employment and General Information Office.

The Peoples' and Grangers' Immigrant Bureau, which accomplished so mnch good last year, has been re-organized under a new Board of Directors, and will continue its good work of attracting immigration and providing for the necessities of the new comers FREE OF CHARGE. Four thonsand and eighty-two sitnations have been fonnd for applicants since May, 1875. The Bnreau expects to receive orders for all the help that may be reqnired in the conntry the present season. Fonr hundred persons visit the office dally. Descriptions of land, maps, pamphlets, circulars, and local newspapers, should be sent to the Bureau. They will be freely distributed among inquirers. The Bnreau was established by the State Grange, and being supported *entirely* by subscription NO CHARGE is made for any business transacted. The following gentlemen are on the Board of Directors for the ensuing year: Mayor A. J Bryant, Chairman; I Friedlander, C. Adolphe Low, Mark L. McDonald, Amos Adams, J. Regensburger, C. D. Sullivan, Charles Lux, George H. Eggers, J. C. Wilmerding, C. J. Cressy, John Morton, Col. A. Wason, Hon. F. A. Gibbs, F. B. Taylor, C. H. Dennison, Claus Speckles, Charles Kohler, A. W. Thompson, All communications should be addressed, J. EARL, MANAGER, IMMIGRANT BUREAU, Grangers' Building, 40 California street, San Francisco.

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PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

FOR WEEK ENDING AUGUST 29TH, 1876.

MEAL BINS.—Jacob R. Felter, San Bernardino, Cal.
DIAL TELEGRAPHS.—John C. Ludwig, S. F.
WINDMILLS.—James N. Rundle, Visalia, Cal., assignor to self and David L. Tonseca, S. F.
ORE CRUSHER AND FEEDER.—James Tullock, Oakland, Cal.
PLOWS.—Stephen M. Harris, Forest Grove, Ogn.
ELLIPSOGRAPHS.—Henry C. Root, S. F.
FIRE PLACE AND FURNACE.—Reason Wiley, Arcata, Cal.

DESIGN.

CENTER PIECE.—(two cases.) Samuel Kellett, S. F.

TRADEMARK.

CIGARS.—John W Schaeffer, S. F.

——*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent bnsiness for Pacific coast inventors transacted with perfect security and in the shortest possible time.

MR. JAMES LICK, who about two years ago bcqneathed his vast estate to the public in varions directions, has deposed his board of trustees and appointed a new one.

WE shipped $5,337,394 in treasnre last month to New York and foreign ports, against $1,434,268 in Augnst, 1875. The receipts of coal at this port since January 1st have been 369,000 tons, against 344,200 tons in the same period last year.

The McCormick Self-Binder.

C. H. & L. J. McCormick, the most celebrated inventors and manufacturers of mowing and harvesting machinery in the world, are not behind the times in producing a thorough working, durable and reliable self-binder attachment to their well-known and justly celebrated reaping machines.

After having been carefully tested in the Western States, where the manufactory is located, during the past season, a most perfect working machine will be offered to the farmers of the Pacific coast next season, at very favorable rates.

The editors of this journal have seen dozens of favorable testimonials from parties who have witnessed the operations of these binders or used them in the field in Iowa, Missouri, Illinois, Indiana, Minnesota and Nebraska.

Further information can be had by addressing or calling upon Mr. P. Mohan, McCormick's, general agent, at No. 6 Davis street, S. F.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

A SOUTHERN HOME FOR SALE.—See advertisement of Lee H. Utt, whose fine place in San Diego county, is for sale.

E. N FRESHMAN & BROS., advertising agents, 186 W. Fourth St., Cincinnati, O., are authorized to contract for advertising in this paper. Estimates furnished free. Send for a circular.

HARD ON THE PUBLISHERS.—Some of our subscribers when called upon by our agents insist that they have sent us notices through (perhaps) a neighbor, the postmaster, or a letter, and we have taken no notice of their orders, for which they feel hard towards us. Now, we never received such notices without responding to them. *It would be suicidal to our interest to ignore them.* The fact is that it too frequently happens that people misdirect their letters; too frequently forget to put the right (or any other) kind of stamps on their letters; they too often send a copy of the paper back, which may never reach our business office, or if it does reach us, may lack the name of the town and county in which the subscriber lives, in which case we cannot (if we have his name) tell what part of our list to find it, to cross it off or change it, without looking over some 10,000 names. Postmasters and their clerks make omissions and mistakes as well. ☞ When you have business with this office remember postal cards and letter stamps are cheap, and ask no one to do that which you can well do yourself. tf



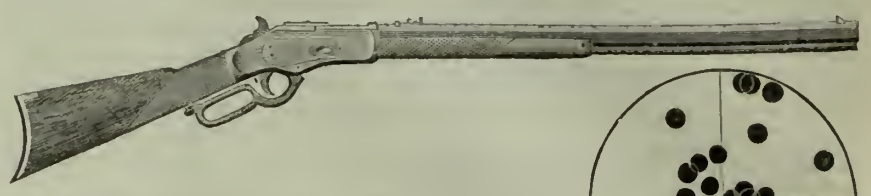
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Elastic Truss.

Reader, are you afflicted with the scourge of humanity called "Hernia?" Well then; as much as you value health and comfort, give our Elastic Truss a fair trial, and our word for it, you will never again wish to wear anything different. For simplicity of construction, durability, ease, convenience, efficacy and quickness of cure, it stands unrivaled. MAGNETIC ELASTIC TRUSS CO., 609 Sacramento Street., S. F.

Winchester Repeating Rifle.

MODEL 1873.





One-third size by Dr. E. H. Pardee

The Strength of all Its Parts,
The Simplicity of Its Construction,
The Rapidity of Its Fire,
The Power and Accuracy of Its Discharge,
The Impossibility of Accident in Loading,

Commends it to the attention of all who use a Rifle, either for Hunting, Defense, or Target Shooting.

The San Francisco Agency is now fully supplied with all the various kinds and styles of Arms manufactured by the Winchester Repeating Arms Company, to wit:

Round barrels, plain and set, 24 inch—blued. Octagon barrel, plain, 24 inch—blued. Octagon barrel, set, 24, 26, 28, 30 inch—blued. Octagon barrel, set extra heavy, 24, 26, 28, 30 inch—blued. Octagon barrel, set 24, 26, 28, 30—extra finished case hardened and check stocks. Octagon barrel, set extra heavy, 24, 26, 28, 30 inch—extra finished—C. H. & C. S. Octagon barrel, set, 24, 26, 28, 30 inch. Beautifully finished. C. H. and C. S. Known as "One of One Thousand." Octagon barrel, set, gold, silver and nickel plated and engraved. Carbines blued, also gold, silver and nickel plated. Military rifle muskets, model 1873. Rifles, muskets and carbines, model 1866. **Reloading Tools, Primers and Parts of Arms.**

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SOLE AGENT FOR THE PACIFIC COAST.

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THREE IMPORTED SHROPSHIRE RAMS,

From the flock of the Earl of Strathmore, England, also,

Four Two-Year Old Thoroughbred

SHORT HORN DURHAM BULLS

—AND—

FOUR CHOICE COWS,

IMPORTED FROM KENTUCKY.

THIS IS PART OF OUR SEVENTEENTH IMPORTATION, AND WILL BE SOLD AT REASONABLE PRICES AND PART CREDIT, IN ORDER TO CLOSE OUT AT ONCE.

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Seeds. Seeds.

IMPORTED.

Crosby's Extra Early
Marblehead Mammoth
Stowell's Evergreen
Mexican Sweet, New } Sweet Corn.

Early Canada
Early Dutton } Yellow Flint Corn.

Long Red Mangel Wurzel
Yellow Globe
White Sugar } Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

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"Metal Trusses being rigid and unyielding, are often displaced from their position by the motions of the body, in consequence of which they ENLARGE rupture instead of healing it. Their pressure is often wrought upon parts of the body which are healthy, thereby causing lumbago and other diseases of a dangerous nature." Call on the MAGNETIC ELASTIC TRUSS CO., 609 Sacramento Street, S. F.

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Grower, Importer, Wholesale and Retail Dealer in



FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

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In CAPAY VALLEY, YOLO CO.,

WITHIN ONE MILE OF THE TOWN OF CAPAY, THE PROPOSED TERMINUS OF THE VACA VALLEY RAILROAD, 16 MILES WEST OF WOODLAND.

One Farm, containing 280 acres of choice valley and hill land, good house, barn, granary, etc., and well feuced. Price, $7,000.

One farm adjoining of 100 acres; good house, barn and outbuildings, young orchard—well watered; Cache creek, a never failing clear mountain stream, running through both farms. Price, $3,000.

Also, **Town Lots in Capay**, soon to be the center of trade and railroad depot for the western and northwestern portion of the county, and also for the quicksilver mines of Lake and Napa counties. Price, $50 to $150 per lot.

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Investigate!

Dispense with Metallic Trusses! Do away with iron hoops and steel springs! Strange yet true! Some man will rather suffer than use remedies within their reach. Lumbago, weakness, kidney disease and other equally distressing complaints are not unfrequently produced by this unnatural mode of treating Rupture. Get an Elastic Truss and save yourself suffering!

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160 Acres of Land, near the town of Linden, all in cultivation; fenced with a three-board fence; good house of eight rooms; young orchard and vineyard in bearing. Price, $50 per acre. Part of the price may remain on mortgage if desired. Address,
JAMES DRACE, Linden, Cal.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Wednesday, Sep. 6th, 1876.

There has como an improvement in the Wheat market, upon which remarks are made elsewhere.

Range of Cable Prices of Wheat.

The course of the Liverpool quotstion for Wheat to the Produce Exchange during tbe days of last week has been as recorded in the following table:

	CAL. AVERAGE.	CLUB.
Thursday	9s 3d@ 9s 6d	9s 6d@ 9s 10d
Friday	9s 4d@ 9s 7d	9s 8d@10s —
Saturday	9s 4d@ 9s 7d	9s 8d@10s —
Monday	9s 4d@ 9s 7d	9s 8d@10s —
Tuesday	9s 5d@ 9s 8d	9s 8d@10s —
Wednesday	9s 5d@ 9s 8d	9s 8d@10s —

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	9s 10d@10s 1d	10s 4d@11s 3d
1875	11s —@11s 4d	11s 4d@11s 9d
1876	9s 5d@ 9s 8d	9s 8d@10s —

The Foreign Review.

The causes which have led to the improvement in the cable, shown in the table above, are described in a telegram from the *Mark Lane Express*, dated September 4th, as follows: Harvesting is still going on in the north, but English cereals are almost entirely reached. A large proportion of the crops has been secured in a satisfactory condition. In some of the midland counties the fields are not yet cleared, and should the present weather continue the condition and quality will be deteriorated. The disappointed nature of the Wheat yield is receiving daily confirmation as the Grain is threshed. This has affected the country markets, which are from one to two shillings per quarter dearer; but despite this, new Wheat is very sparingly offered, farmers even asking a larger advance, which buyers refuse to concede. The week's supplies of foreign Wheat and Oats have been again heavy and decidedly in excess of the demand. Mixed American Maize of sound quality is readily sold at 25 shillings per quarter, but the majority of the shipments are coming to hand in such a heated condition that the market is becoming glutted with inferior Corn, which sells very slowly, with a tendency to improve slightly upon a limited advance of six pence to one shilling per quarter, as quoted last Monday. All that can be said of our local Wheat trade is, that large foreign arrivals are counteracting for the moment the advance which the increased firmness of the country markets and the short home yield led owners to anticipate. Prices must depend largely on the rate at which foreign supplies come to hand. The total quantity of Wheat afloat for the United Kingdom is considerably smaller than it was at this time last year. The Continental demand may exercise some influence on prices, but so shortly after the harvest we cannot expect much, and from this quarter especially, as it is very difficult to form a just estimate of the crops abroad, owing to the contradictory nature of the reports. The French advices furnish a good sample. A short time since dissatisfaction as to quantity was prevalent, and recently we learn that the Minister of Agriculture stated at a Cabinet Council, that on the whole the crop was rather over than under the average. With very moderate arrivals at ports of call, Wheat cargoes have not had a steady inquiry during the week, and an improvement has been realized of two shillings per quarter from the recent lowest point.

Freights and Charters.

The advance in English prices has stiffened the views of shipholders. The *Post* says: Rates have slightly improved, as will be seen by our list of engagements for the week. Oregon will soon be in the market for tonnage to move her wheat surplus. We now quote spot charters to the United Kingdom at £2 15s@£3, the former figure for wooden vessels and the latter figure for first-class British iron vessels of a handy size. On the first inst. the amount of tonnage headed this way, from all ports, was 263,000 tons, against 301,000 tons on August 1st. We have at this writing 59,692 tons of tonnage in port engaged for Wheat loading and 3,399 tons for miscellaneous loading. The list of disengaged tonnage foots up 35,663 tons. The engagements of the week have been as follows: Ship "Oriental," 1,688 tons, Br ships "Eblina," 1,351 tons, and "Warwick," 1,005 tons, and Br barks "James Bolt," 697 tons, and "Blenheim," 575 tons, all to load Wheat to Cork for orders. The two last mentioned vessels are reported to have received £3. Ship "Palmyra," 1,363, Wheat to Cork, U. K., £2 17s; Continent, £3 2s. Ship "Comet," 1,157, Wheat to Cork, U. K., £2 15s; Continent, £3. Br ship "Cartshurn," 1,312, Wheat to Liverpool, prior to arrival, £3 5s. Br ship "City of York," 1,195, Wheat to Cork from Portland, £3 10s. Br ship "Assaye," 1,281, Wheat to Liverpool, prior to arrival, £3 5s. Ger bark "Werra," 932, Wheat to Cork for orders, prior to arrival, private. Br bark "Birchvale," 910, Wheat to Cork for orders, prior to arrival, private. Ship "Frolic," 1,368, Wheat to Liverpool or Havre, £2 15s. Br ship "Mitredale," 1,231, Wheat to Liverpool, private.

The Chicago Trade.

CHICAGO, September 3d.—The markets for six days past have exhibited unusual activity and firmness, Wheat having advanced steadily, closing at nearly outside prices. Spring Wheat has sold at from 91⅝@95½c, closing at 95¼@95⅜c. Receipts for the week, 120,000 bushels of Wheat, 1,865,000 do Corn, and 49,000 do Oats, against 546,000 do Wheat, 956,000 do Corn, and 507,000 do Oats for the same week last year. Shipments were 112,000 bushels Wheat, 1,440,000 do Corn, and 212,000 do Oats, against 682,000 do Wheat, 1,767,000 do Corn, and 406,000 do Oats for the corresponding week last year. Higher prices in Wheat have been induced by firmer Continental markets and a general belief that Wheat below a dollar per bushel is good property. The depressed feeling in all branches of trade seems to be gradually disappearing, from this section of country at least. Commerce is regaining its elasticity, money is circulated more freely and more confidence in the future is expressed by tradesmen, financiers and all business men. These considerations have affected the Wheat trade more speedily than any other business, and have imparted life to the grain movement. Corn closes rather firm, though prices have ruled lower during the week than for some months past; the closing price is 43¾c. Oats are steady and firm at about 31c. A grain circular published here calculates an increased area of Corn and corresponding decrease of Wheat of at least 15 per cent. in Iowa, Minnesota and Wisconsin, three heavy Wheat growing States. The average of Wheat per acre in those States the circular estimates at seven bushels, or 15,000 000 less than last year. Corn will be an extraordinary crop; Oats, of large yield and ligbt quality; while Barley will grade low, but be a fair average crop. Reports from other sources do not warrant so great a shrinkage in the Wheat yield as this circular gives. Provisions have experienced marked decline and seem tending strongly downward.

The New York Trade.

NEW YORK, Sept. 3d.—The grain trade has improved during the week, so far as Wheat is concerned, though business has been restricted by the continued scarcity of good and prime qualities. Prices are a trifle higher, but very irregular. Spring has sold at $1.05 to $1.20 for inferior to prime, with unsold stock held considerably lower. Winter of good and prime grade has sold at $1.15 to $1.27. Corn is lower, having sold down to 53@56c. For Barley there appears to be no established price as yet. Shipping grades of Flour are scarce and rather firmer, except that from new Wheat, which is not wanted.

Our August Exports.

During the month of August 28 vessels cleared at this port with Wheat for Great Britain and Antwerp. In August last year 25 vessels cleared. The exports of Wheat from July 1st to Sept. 1st, 1876, were 2,246,085 ctls. During the same months of last year the exports were 1,669,699 ctls. The flour shipments for August were 24,111 hbls.

Eastern Wool Markets.

NEW YORK, Sept. 3d—The Wool market has been active and somewhat excited during the week, and prices again show an advance. Choice lines of X and XX Ohio fleeces are now held at 41½@43c; and for free Spring California, 28@30c is demanded. This week has been chiefly speculative, for the high rates asked by holders have in a measure checked inquiry from manufacturers. The causes of the rapid advance of the past month can be traced to the great scarcity of fine Wools, not only here but throughout the entire West, and the probability is that a still higher range will prevail, for the only clips that are to arrive during the year are those of California and Texas. The new Fall California that recently came to hand, has all been disposed of, and the market to-day is bare. The staple is pronounced fair, but there is not that absence of burrs which assists to enhance the value. The supply of foreign clothing is still very limited, but with the higher range for domestic, shipments will be made from the other side. Sales for the week are, 400,000 lbs. Spring California; slightly hurry, at 17½@24; 50,000 lbs new Fall do, about 15c; 2,000 lbs scoured do, 50c; 5,000 lbs Colorado, 18c; 14 000 lbs Oregon, 28c; 500,000 lbs Texas, at 16@21c for Western, and 16@26c for Eastern; 300,000 lbs Georgia and Lake, 21½@26c; 10,000 lbs X Ohio fleece, 38c; 12,000 lbs washed combing do, 44c; 40,000 lbs unwashed Indiana, 23c; 53,000 do, Western, 24@28c; 10,000 lbs State, 33½c; 30,000 lbs Wisconsin, 25c; and 40 bales Cape, 464 do, Mediterrranean, 151 hags X and super pulled, 37 do, lambs' do, 400 lbs; Utah, 125,000 lbs X and above Ohio, 6,000 lbs No. 1, do, 300 lbs unmerchantable, 5,000 lbs Virginia, and 40,000 lbs, unwashed Western on private terms.

BOSTON, Aug. 26th.—The first installment of the new fall clip of California has made its appearance, and a small lot of 13,000 lbs sold at 16c, and 10,000 lbs at prices we are not at liberty to print. The condition of the Wool is seedy and burry, but the market has hardly opened as yet in San Francisco, and the small receipts are no criterion. Prices are likely to range from 14@22c ₱ lb currency. The demand for spring continues quite active, the sales of this description amounting to 1,038,000 lbs at 14@22c ₱ lb for poor to good, the principal transactions having been in the range of 20@27c ₱ lb. The extent of our business in California Wool for the 17 weeks since May 1st, amounts to 16,582,000 lbs, or an average of about 1,000,000 lbs per week during that time. Notwithstanding these large sales there is still a good assortment of California Wool offering, although the large stocks have been materially reduced. One house still holds 1,500,000 lbs, embracing all grades, from 30c for choice down to very low figures for poor and hurry.

The Oregon Wheat Crop.

The Portland *Oregonian*, of September 2d, says: The harvest is now well along in this valley and about finished in the Umpqua, while the farmers of the Walla Walla country and Eastern Oregon have their Wheat nearly all threshed, so that we must certainly be near the time when the market will take some definite course, and evince reliable indications of what we may expect. Only a few farmers, so far, have shown an inclination to sell, the majority seeing nothing in the trade at present to warrant a belief that there is danger of any further decline, if they can see but little hope of a permanent rise. The impossibility of telling what prices are going to rule is like that of judging what the yield is before the harvest is over, and only a general idea can be formed, based on the information from different sections. From this standpoint the surplus in our State will fall considerably short of last year; good judges say at least 600,000 bushels. This will leave a deficit in the income of the country which will hardly be made up in other products.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

ARTICLES.	WEEK AUG. 16.	WEEK AUG. 23.	WEEK AUG. 30	WEEK SEPT. 6.
Flour, quarter sacks	46,352	35,278	42,993	71,075
Wheat, centals	272,236	272,434	305,541	497,684
Barley, centals	58,170	51,156	56,938	52,170
Beans, sacks	467	226	349	488
Corn, centals	1,227	1,659	4,143	1,615
Oats, centals	3,517	7,403	9,494	5,096
Potatoes, sacks	15,275	22,013	22,981	15,360
Onions, sacks	1,111	1,996	2,557	1,539
Wool, bales	2,619	3,205	2,935	3,668
Hops, bales	23	86	172	280
Hay, bales	1,671	3,563	2,619	2,940

Bags—The Bag combination is now holding hand-sewed standard Wheat Bags at 12½c. Outside dealers offer lots at 12c. There is an exceedingly light demand, and it is expected that the combination will fail to make its point. This is, however, only an opinion.

Barley—Prices for Barley remain unchanged. The supplies are ample. There is a demand for brewing for the East, but at low rates. Feed Barley is depressed. We note sales: 200 sks ordinary Feed, 90c; 800 do good do, 95c, silver; 2,000 [illegible] new Bay Brewing, for New York by sea, $1.02½ [illegible] ctl, gold; 1,100 sks choice Coast Feed at 95c per [illegible] ctl, silver; 6,000 ctls new Bay Brewing, in two lots, for shipment overland, at $1, gold; 180 sks do do, 95c, gold; 275 sks Coast Feed, 97½c; 161 do do, 95c; 117 mixed do, 90c, all silver; 400 sks poor Feed, 82½c, half silver; 400 sks good Coast Feed at 90c per ctl, gold; 155 do dark do, 87½c, silver; 900 sks new Brewing, $1; 750 do do, 97½c per ctl, gold; 550 do choice southern, 95c, half silver; 500 do Coast Feed at 90c, silver. Chevalier has sold at $1.20 per ctl, gold.

Beans—Beans are still nominal.

Corn—The Corn trade is quiet at former prices. We note sales: 400 sks large Yellow, $1.20; 150 do Golden Drop, $1.32½; 265 do large White, $1.25; 120 do small round, $1.27½; 50 sks small round, $1.27½; 120 do Bay Dent, $1.27½ ₱ ctl, half silver.

Dairy Produce—Fresh roll and pickle roll Butter have improved during the week, as shown in our quotations below. Cheese is unchanged.

Eggs—Eggs have advanced to 37½@40c.

Feed—Ground Feeds are unchanged. Hay sells at the former range. The proposed action of the Harbor Commissioners in changing the landing place to another wharf is exciting much attention among the trade. We note sales of Hay during the week as follows: 67 tons poor Volunteer, $6.50; 50 do good Oat' $11.25; 44 tons fair Wheat and Oat, $11; 32 do do, $11.25; 27 tons poor Volunteer at $7.50; 45 do choice Wheat at $13.50 per ton; 64 tons (two cargoes) choice Wheat, $13 ₱ ton.

Fruit—Bartlett Pears have advanced. Other changes may be noted in our tables of quotations below.

Hops—Although receipts of new Hops have not been sufficient to fix the price for a [illegible]surety, it is within the market to quote them at 18@20c ₱ lb. A sale of two car loads of Sacramento, to go East, is reported at 17½c gold, and a few small lots have been sold at 18@20c. The New York market for the week ending Aug. 26th is reviewed by Emmett Wells as follows:

The market since our last has been without material alteration. Choice grades are becoming scarce and are held firm at outside quotations. Reports from the growing crop are somewhat more favorable in this State. In Wisconsin the reports are very conflicting. Of the German crop the *Brewers' Guardian* of Aug. 8th says: "We cannot report any improvement on the German plantations, which promise under the continuance of fine weather one-third of a full crop. The active demands for last year's growth continues, at advancing prices."

Oats—Oats are meeting a good demand and selling well. We note sales: 200 sks Coast Feed, $1.50; 250 do, $1.47½, both half silver; 400 ctls Bay Milling, $1.82½, gold; 170 sks Milling, $1.80; 230 do choice Bay Feed, $1.70; 100 do Coast do, $1.55; 220 do do, $1.50, all half silver; 400 sks choice Feed, $1.82½, half silver; 300 do good do, $1.70, all silver; 380 sks ordinary Coast, $1.50, half silver; 200 do good Feed, $1.70, all silver; 85 do choice do, $1.82½ per ctl, half silver; 380 sks poor Feed, $1.50 per ctl; 300 do good, $1.70@1.72½, silver; 150 sks dark Coast Feed, $1.35; 100 do Milling, $1.80. Heavy Milling parcels are saleable at $1.80@1.95 per ctl. The "Cyane" carried a small quantity of Feed to Honolulu.

Onions—Silverskins are selling lower. Other kinds are in large supply and dull at quotations.

Potatoes—The "Great Republic" carried 2,760 sks for Hongkong. This somewhat relieved the market for ordinary and medium grades, but supplies are full and prices not materially changed. Early Rose are lower. A part of the last consignment of Cuffey's Cove sold at $1.05; Half Moon Bay and Missions sold on the wharf at 70@90c. Some of the Half Moon bay Potatoes are arriving in poor condition and are difficult of sale.

Poultry—Poultry advances a point on most kinds. Quotations below.

Provisions—There is no change to note in Provision supplies at this point. The Chicago market for Cured Meats is reported very dull.

Rye—The situation in Rye is unchanged. Millers are taking some choice lots at $1.40@1.50.

Vegetables—Prices have fluctuated somewhat during the week. Our tables below are corrected to date.

Wheat—The advance in foreign rates, which is noted elsewhere, creates a firmer feeling here, but no advance in sales is noted. Tidings has come of the loss of the Wheat ship "Sonora," carrying a cargo of 41,000 ctls, cleared by the Swiss-American bank. This is the third of the fleet of last year which has been lost. We note sales of Wheat in this market as follows: 16,000 sks good Shipping, in lots, at $1.52½; 1,700 do do, $1.52½; 2,000 do do, $1.51¼; 400 do good Milling, $1.50; 2,000 do Superfine Milling, $1.30@1.32½; 800 ctls Superfine, $1.32½; 800 tons choice Shipping, $1.55; 1,000 ctls good do, $1.52½; 20 tons fair do, $1.50; 10,000 ctls choice Shipping, bought in the interior to be delivered alongside vessel, $1.51¼, gold; 3,000 ctls Superfine, $1.30@1.35; 5,300 do Shipping, $1.52½ per ctl; 900 sks Bay, $1.45; 300 do Coast, $1.47½; 660 ctls Shipping, $1.50

Wool—We change our quotations below to fall clip, as spring is reduced to very small amount. Sales of Wool for shipment to the East have been made during the week as follows: 8,000 lbs good Oregon, 23c; 23,000 lbs choice fall, 15@17c; 280,000 lbs in lots, 9@13½c; 300,000 lbs assorted within the range; 45,000 lbs fall, 11@14c; 50,000 lbs Oregon, 18@22½c; 23,000 lbs fall, 11@13c; 52,000 lbs fall, 10@13c; 25,000 lbs Oregon, 21@23c.

S. F. Retail Market Rates.

WEDNESDAY M., Sept. 6, 1876.

POULTRY, GAME.			
Chickens	50 @1 25	Cod Fish, ₱ lb	12 @ —
Eggs, Hens	— @ 50	Lake Big. Trout	— @ —
do Ducks'	— @ 40	Beef, tend, ₱ lb	20 @ 25
Turkeys, ₱ lb	25 @ —	Corned, ₱ lb	8 @ 10
Ducks, each	1 00 @ —	Smoked, ₱ lb	— @ 15
Geese, wild, pair	— @ —	Porterhouse St'k	20 @ 25
Tame, ₱ pair	1 50 @2 00	Sirloin do	15 @ 18
Snipe, ₱ doz	— @ —	Round do	10 @ 12
do English	— @3 00	Pork, rib, etc., lb	12½@ 15
Quail, per dozen	— @ —	Chops, do, ₱ lb	15 @ 20
Prairie Ch'ks, pr	— @ —	Veal, ₱ lb	12½@ 15
Hares, each	25 @ 35	Outlet, do	15 @ 20
Rabbits, pair	37 @ —	Mutton-chops, lb	6 @ 9
Squirrels each	10 @ —	Leg Mutton, ₱ lb	10 @ —
Hams, Cal. ₱ lb	16 @ 20	Lamb, ₱ lb	12 @ 15
FISH, MEATS, ETC.		Antelope	— @ —
Flounder, ₱ lb	20 @ —	Tongues, beef,	75 @1 00
Salmon, ₱ lb	— @ 15	do, do, smoked	75 @1 00
Smoked	— @ 10	Tongues, pig, lb	12½@ —
		Bacon, Cal, ₱ lb	16 @ 20

FRUITS, VEGETABLES.			
Apples, pr lb	5 @ 8	Oanliflower	10 @ 15
Pears, per lb	5 @ 8	Green Peas ₱ lb	4 @ 6
Apricots, lb	5 @ 8	Cabbage, per hd	10 @ —
Peaches, lb	4 @ 6	Oyster Plant, bn	— @ 10
Plums	4 @ 10	Carrots, ₱ doz	— @ 25
Pine Apples, each	50 @ 75	Celery, ₱ dz	75 @1 00
Grapes	6 @ 20	Cress, ₱ doz bun	20 @ 25
Bananas, ₱ doz	50 @ —	Onions	2 @ 3
Muskmelons each	15 @ 35	Turnips, ₱ doz bunches	— @ 25
Watermelons	25 @ 50	Brussels Sprouts	— @ —
Blackberries	12 @ 15	Eschalots	— @ 35
Cal. Walnuts, lb	20 @ 30	Dried Herbs, doz	30 @ 50
Cranberries, Org., do Eastern qt	— @ 25	Garlic ₱ lb	10 @ —
Huckleberries	— @ 25	Green Corn, doz	20 @ 50
Strawberries, lb	12 @ 15	Lettuce, ₱ doz	25 @ 35
Raspberries, lb	20 @ 25	Mint, ₱ bunch	— @ 12½
Gooseberries	— @ —	Mushrooms, ₱ lb	— @ —
Currants	4 @ 5	Horse radish, ₱ lb	15 @ 20
Cherries, ₱ lb	10 @ 30	Okra, dried, ₱ lb	— @ —
Nectarines	10 @ 12	Pumpkins, ₱ lb	5 @ 6
Pomegranates	— @ —	Parsnips, doz	— @ 25
Oranges, ₱ doz	50 @1 25	Parsley	12½ @ —
Lemons	75 @1 00	Pickles, fresh, ₱ lb	— @ —
Limes, per doz	— @ 25	Radishes, doz	20 @ 25
Figs, dried Cal	12½@ 15	Sage	— @ 25
Figs, Smyrna, lb	25 @ 35	Summer Squash	3 @ 5
Asparagus, lb	6 @ 8	Marrowfat, do	5 @ —
Artichokes, doz	25 @ —	Hubbard, do	— @ —
do Jerusalem	— @ —	Tomatoes ₱ lb	4 @ 8
Beets, ₱ doz	20 @ 25	Mangoes, ₱ doz	— @ —
Potatoes, ₱ lb	2 @ 3	Spinage ₱ bskt	— @ 12
Potatoes, sweet	8 @ 10	Rhubarb	4 @ 6
Broccoli, each	10 @ 15	Green Chilies	— @ 25

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., Sept. 6, 1876.

BEANS.		Pecanuts	17 @ 18
Bayo, ₱ ctl	4 00@4 50	Peanuts per lb	8 @ 9
Butter	1 90@2 25	Filberts	15 @ 16
Pea	1 92½@ —	**ONIONS.**	
Pink	2 50@3 00	Union City ctl	— @—
Sm'l white	1 60@1 90	Stockton	50 @— 75
Lima	1 90 @2 00	New Red	50 @— —
BROOM CORN.		Silver Skins	50 @— 50
Common, ₱ lb	2 @ 3	**POTATOES.**	
Choice, do	4 @ 5	Petaluma, ₱ ctl	— @ —
COTTON.		Salt Lake	— @ —
Cotton, ₱ lb	15 @ 18	Humboldt	— @ —
DAIRY PRODUCE, ETC.		Half Moon bay	80 @1 07½
BUTTER.		Early Rose new	50 @ 65
Cal. Fresh Roll		Sweet	1 00 @ 1 25
per lb	— @ 42½	**POULTRY & GAME.**	
Point Reyes	42½@ 45	Hens, per dz	9 00 @8 00
Pickle Roll	32½@ 35	Roosters	5 50 @7 00
Firkin	25 @ 30	Broilers	3 00 @4 50
W'st'n Reserve	16 @ 22½	Ducks, tame, dz	7 00 @8 50
New York	— @ —	do Muscovy	8 00 @9 00
CHEESE.		do Canvass	— @8 00
Cheese, Cal., lb	10 @ 15	Geese, per pair	2 00 @2 50
do Old	— @ —	Wild Gray dz	3 00 @4 00
Eastern	12½@ 15	White	1 50 @2 00
EGGS.		Turkeys, Live, lb	15 @ 16
Cal. fresh ₱ doz	37½@ 40	do Dressed	20 @ 22
Ducks'	— @ 35	Quail, per doz	— @
Oregon	32 @ 35	Snipe, Eng., doz	— @—
Eastern	21 @ —	Doves, per dozen	50 @ 57
FEED.		Rabbits	1 00 @1 00
Bran, per ton	17 00 @17 50	Hare, per doz	1 50 @2 10
Corn Meal	28 00 @29 00	**PROVISIONS.**	
Hay	7 00 @13 00	Cal. Bacon, L't, lb	16 @ 17
Middlings	24 00 @— —	do Medinm	15½@ 16
Oil cake meal	— @33 50	do Heavy	— @ 15½
Straw, ₱ bale	55 @ 60	Lard	14 @ 16½
FLOUR.		Cal. Smoked Beef	12½@ 15
Extra ₱ bbl	5 00 @5 50	Eastern do	— @—
Superfine	4 00 @4 25	East'n Should'a	— @ 12
Graham, ₱ bbl	4 75 @ —	Hams, Cal	15 @ 15½
FRESH MEAT.		do Armour	— @ 16½
Beef 1st quality lb	6 @ 7½	do Worster's	18½@ 19
Second do	5 @ 5¾	do Dupee's	18½@ 19
Third do	3½@ 4	do Davis Bros'	18½@ 19
Spring Lamb	5½@ 6	**SEEDS.**	
Mutton	3½@ 4	Alfalfa, Chile lb	8 @ 10
Pork, undressed	6 @ 6¾	do California	11 @ 12
do, dressed	9 @ 9¼	Canary	9 @ 10
Veal	5½@ 6	Clover Red	— @ 22
Milk Calves	5½@ 7	do White	50 @ 55
GRAIN, ETC.		Cotton	6 @ 10
Barley, feed ctl	80 @ 1 00	Flaxseed	— @ 3½
do brewing	1 20 @ 1 25	Hemp	12½@ —
Chevalier	1 25 @ 1 35	Italian Rye Grass	25 @ 30
Corn, White	1 25 @ 1 30	Perennal do	20 @ 30
do Yellow	1 25 @ 1 35	Millet	10 @ 12
Oats	1 50 @ 1 75	Mustard, white	5 @ 6
Milling	1 80 @ 2 00	do, Brown	3 @ 3½
Rye	1 35 @ 1 40	Rape	5 @ 8
Wheat shipping	1 50 @1 52½	Ky. Blue Grass	30 @ —
do milling	1 55 @1 60	do 2d quality	29 @ —
HIDES.		Sweet V Grass	— @ 75
Hides, dry	10 @ 12½	Orchard do	30 @ 35
do wet salted	6 @ 6½	Red Top do	— @ 25
HONEY, ETC.		Hungarian do	8 @ 12
Beeswax, per lb	25 @ 30	Lawn do	50 @ —
Honey in comb	10 @ 12½	Mesquit do	20 @ 25
do Strained	6 @ 8	Timothy	11 @ 13
HOPS.		**TALLOW.**	
New crop	18 @ 20	Crude, ₱ lb	6 @ 6¼
NUTS—Jobbing.		Refined	8¾@ 9
Alm'ds h'rd sh'l lb	8 @ 10	**WOOL, ETC.**	
do, soft sh'l	18 @ 20	FALL—	
Brazil do	14 @ 16	Free	11 @ 13
Cal. Walnuts	12 @ 14	Choice	13 @ 15
Chile Walnuts	11 @ 12½	Burry	9 @ 11
		Oregon	17 @ 23

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., Sept. 6, 1876.

FRUIT MARKET.		**DRIED FRUIT.**	
Oranges Mex. ₱ M	— —@— —	Apples, ₱ lb	6 @ 8
Tahiti, do	30 00@35 00	Pears, ₱ lb	— —@ 10
Del. do	— —@— —	Peaches, ₱ lb	7 @ 7½
Limes, Mexican, ₱ M	12 50@— —	Apricots, ₱ lb	10 @12½
Malaga Lemons, ₱ hx	— —@— —	Plums, ₱ lb	5 @ 6
Cal. ₱ 100	2 00@ 2 50	Pitted, do, ₱ lb	13 @15
do Sicily ₱ b'x	15 00@— —	Raisins, imported	3 25 @3 75
Bananas, ₱ bnch	1 50@ 3 00	Cal. Raisins	5 @ 10
Cocoanuts, ₱ 100	— — @ 5 00	Black Figs, ₱ lb	5 @10
Pineapples, ₱ dz	— @ —	White, do	12½@15
Apples, ₱ hox	50 @1 00	Prunes	12½@17
do Choice	— @1 10	Citron	28 @ 30
Apricots, lb	— @ —	Zante Currants	9 @ 10
Blackberries case	9 00@—	**VEGETABLES.**	
Cherries ₱ lb	— @ —	Asparagus ₱ lb	— @10
Plums lb	1 @ 2	Beets ₱ ctl	—@75
Prunes lb	2 @ 4	Cabbage, ₱ 100 lbs	50 @ 60
Figs	3 @ 4	Carrots, ₱ 100 lbs	50 @ 62½
Gooseberries	— @ —	Cauliflower, doz	50 @ 62½
Huckleberries	— @ —	Celery, doz	50 @—
Strawberries case	9 00@7 00	Garlic, ₱ lb	2 @ 2½
Pomgranates	— @ —	Green Peas ₱ lb	— @ 2¼
Raspberries	— @ —	Green Corn ₱ doz	10 @20
Currants, ₱ os	— @ —	Sum'rSquash ₱ box	40 @50
Cranberries hbl	13 00 @14 00	Marro'fat Sqsh, tn	10 @0 —
Peaches, ₱ box	1 25@2 00	Artichokes, ₱ doz	— @—
Pears, ₱ hx	50 @ 75	String Beans, ₱ lb	— @ 2½
do Choice	1 00 @2 00	Lima Beans	1¾@ 2
Orab apples, ₱ lb	2 @ 3	Parsnips	— @—
Grapes ₱ box	25@ 50	Shell Beans	1½@ 2
Rose of Peru	40@ 75	Peppers, green, hx	25 @50
Muscat	40@ 85	Okra	5 @ 6
Sweetwater	40@ 75	Quoambera, ₱ box	40 @ 50
Black Hamburg	30@ 75	Tomatoes, box	20@ 40
Tokay	75@1 00	Egg Plant, box	1 25@1 50
Morocco	2 00@2 50	Rhubarb box	— @—
Quinces	1 00@1 25	Lettuce, doz	10@ —
		Turnips, pr ctl	50@ 62½
		Watermelons doz	1 00@1 25
		Canteloupes do	1 00@1 25

LUMBER.

CARGO PRICES OF REDWOOD.		PUGET SOUND PINE —Retail Price.	
Rough, ₱ M	$18 00	Rough, ₱ M	22 50
Rough refuse, ₱ M	14 00	Fencing, ₱ M	22 50
Rough clear, ₱ M	30 00	Flooring and Step, ₱ M	32 50
Rough clear refuse, M	20 00	Flooring, narrow, ₱ M	35 00
Rustic, ₱ M	32 50	Flooring, 2d quality, M	25
Rustic refuse, ₱ M	22 50	Laths, ₱ M	3 50
Surfaced, ₱ M	30 00	Furring, ₱ lineal ft	—¾
Surfaced refuse, ₱ M	20 00	**REDWOOD—Retail.**	
Flooring, ₱ M	28 00	Rough, ₱ M	22 50
Flooring, refuse, ₱ M	18 00	Rough refuse, ₱ M	18 00
Beaded flooring, ₱ M	30 00	Rough Pickets, ₱ M	18 00
Beaded floor, refuse, M	20 00	Rough Pickets, p'd, M	20
Half-inch Siding, M	20 00	Fancy Pickets, ₱ M	30
Half-inch siding, ref, M	16 00	Siding, ₱ M	25 00
Half-inch, Surfaced, M	25 00	Surfaced and Beaded	37 50
Half-inch Surf. ref., M	20 00	Long Flooring	35 00
Half-inch Battens, M	20 50	Do do refuse, ₱ M	25 00
Pickets, rough, ₱ M	14 00	Half-inch surfaced, M	32 50
Pickets, rough, p'nted	13 00	Rustic, No. 1, ₱ M	40 00
Pickets, fancy, p'nted	16 00	Battens, lineal foot	—¾
Shingles ₱ M	3 50	Shingles ₱ M	3c

RETAIL GROCERIES, ETC.

WEDNESDAY, M., Sept. 6, 1876.

Butter, Cal. choice	40 @50	Bowon Bro. large can per doz	5 00 @— —
Cheese, lb	18 @20	Small, do	2 50 @— —
Eastern	25 @30	Bowen's Cream Tartar lb	— @ 75
Lard, Cal., lb	— @18	Oal'd Oysters, dz	2 00 @3 50
Eastern	— @25	Syrup, S F. Gol'n	75 @1 00
Flour, ex. fam, bl	6 25 @6 50	Dried Apples	10 @ 12
Corn Meal, lb	2½@ 3	Dr'd Peaches	11 @ 13
Sugar, Wh. crsh'd	12½@13½	Dr'd Pears	11 @ 13
do lt. brown, lb	8 @ 9½	Dr'd Prunes	12½@ 14
Coffee, green, lb	23 @ 35	Dr'd Figs, Cal	9 @ 10
Tea, fine blk	50, 65, 75 @1 00	Dr'd Peaches	11 @ 15½
Tea, finest Jap	55, 75, 90 @1 00	Oils, Kerosene	30 @ 40
Candles, Adamantine	15 @ 25	Wines, Old Port	3 50 @5 00
Soap, Cal., lb	7 @ 10	do Fr. Claret	1 00 @2 50
Rice, lb	8 @ 12½	do Cal., dz. hot	3 00 @4 50
Yeast Powders	1 5 @2 00	Whisky, O K, gal	3 50 @5 00
		Brandy	4 00 @8 00

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by SUTRO & CO.]

SAN FRANCISCO, Sept. 6. 3 P. M.

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R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

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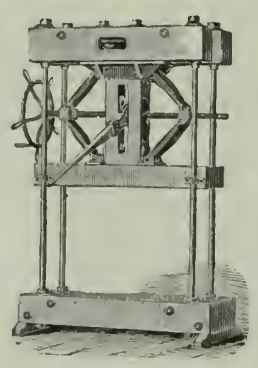
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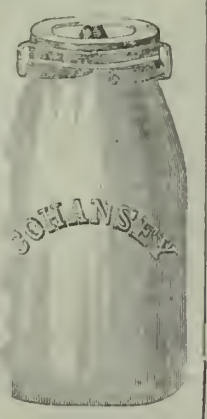
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We are now in communication with reliable parties who have had 20 years' experience in the business in Spain, whereby we can furnish any information with regard to curing, packing, etc., gratis. We have perfected arrangements by which we can furnish cuttings of the famous Malaga Raisin Grapes direct.

FEUSIER & SPAFFORD,

310 and 312 Clay Street, San Francisco.

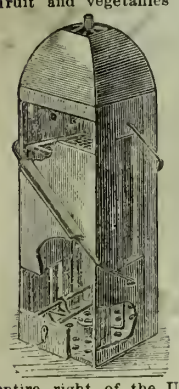
Agricultural Articles.

J. W. CASSIDY'S

FRUIT DRIER.

A New Invention, although Thoroughly Tested, which Combines all the Improvements.

We warrant a complete success in drying all sorts of fruit and vegetables as thoroughly and more expeditiously than any other Machine, for less amount of fuel by 35 per cent., as we utillze all the waste heat which is lost by all other Machines.



Its simplicity of construction and its cheapness will put it in the hands of all who may want a Drier. We don't pretend to ask from $1,200 to $1,500 profit and royalty. We are willing that producers should make the profit and keep it. The Machine has been tested to our entire satisfaction, and met our most sanguine expectations. The fruit dried by our Drier was fully as good as that dried by any of the renowned Driers. We would say to all who contemplate putting up Machines, that we can make it a decided inducement for all such to give us a call, as we want to sell the entire right of the United States, State, County or Local, at such prices that the poor as well as the rich can use them. The capacity of the Machine will be in proportion to the size, ranging from 100 to 500 feet drying surface. This dryer was more fully illustrated and described in the RURAL PRESS of May 20th, 1876. Communications to T. F. BACHELOR, 622 Clay St., S. F., or to J. W. CASSIDY, Petaluma, Cal., will be thankfully received and promptly attended to.

The Famous "Enterprise"

(PERKINS' PATENT)

Self-Regulating, Farm Pumping, Railroad and Power

WINDMILLS,

Pumps & Fixtures,



Have been in use on the Pacific Coast in the towns and farming districts for over four years, and wherever they have been sold (and ther are thousands of them ont) they are doing their work as well as when put up. A careful perusal of our Circulars gives a fair representation of them and shows their simplicity.

We are prepared to hill orders for all sizes, from a PUMPING MILL to a 24-foot POWER MILL for running Machinery, as well as doing the pumping.

The "ENTERPRISE" FEED MILL

(PACKERS' PATENT),

For Grinding Barley, Etc.,



Equally as commendable, has now been tested to entire satisfaction of all, and meets the demand for an article of that kind that has not been supplied on the Pacific Coast heretofore.

CHEAP and RELIABLE.

All Goods Warranted.

Send for Illustrated Circulars and Information to

HORTON & KENNEDY,

Managers for California and Pacific Coast,

General Office and Supplies,

LIVERMORE, ALAMEDA COUNTY, CAL.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

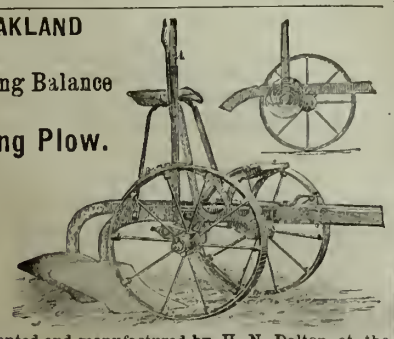
Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

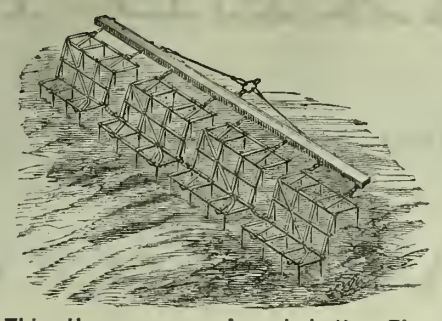
OAKLAND

Spring Balance Gang Plow.



Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal Established in 1858. Send for Circular and Pricelist

IRON SECTIONAL HARROW.



This Harrow was Awarded the First Premium at the California State Fair in 1875.

The undersigned, having purchased the patent right of this Harrow for California, are now manufacturing them in Roseville, Placer County, and would call the attention of Farmers to the superior merits of this Harrow over all others now in use.

As its name indicates, it is made in sections of about three feet in width, each section having four bars, in which the teeth are inserted, and by connecting the sections with links, the Harrow is formed.

Should a Farmer require a Harrow upon his farm to do all kinds of work, he should purchase six sections, which would be suitable for four horses, and would cut 18 feet in width; by disconnecting two sections he will have a two or three horse Harrow, cutting about 13 feet. One section alone is complete in itself, and suitable for garden work, with one horse. The Harrows are made of the best quality of iron, and with teeth warranted to be steel.

We give a few of the many reasons why we claim superiority for these Harrows over all others in use on this Coast:

First—By the lightness of draft, taking into consideration the amount of work it does.

Second—By working uneven or rolling ground just as well and as evenly as if it was entirely level

Third—They are made of Iron and Steel, and therefore are not affected at all by sun or rain, or by heat and cold; they are always tight, and ready for use; they are also durable. A farmer purchasing one has a Harrow that will last a life time.

Fourth—The teeth being fastened with a nut and screw into the cross bars, should one break, another can be inserted in a moment. We are making three sizes, all being the same in width, but different in depth and weight only.

Prices, from $12.50 *to* $15.00 *per Section.*

All orders sent to

BREWSTER & CO.,

Roseville, Placer Co.,

Will be promptly attended to, and satisfaction guaranteed in all cases.

CAUTION.

It has come to our notice that certain parties are now making this Harrow in this State, and that several of them have been sent here from the East. Now this is to *caution* all persons against making, selling or buying them, so made and offered for sale, as we shall enforce our rights in relation to the matter, and would call the attention of all persons infringing upon our patent, to the *law* in regard to it.

BREWSTER & CO.,

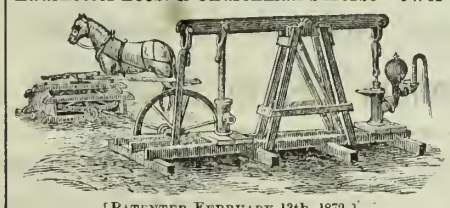
Roseville, July 15th, 1876.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power



[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,

Cor. J and 10th Sts., Sacramento.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

Stockton, Cal.

MERCHANT MILL FOR SALE,

And 150 Acres Land. Turbine Wheel, 190 feet fall, 35 barrels per day. Good Home Market and Never Failing Water.

S. A. POLLARD,

San Luis Obispo.

ASK YOUR GROCER OR OIL DEALER FOR

"ELAINE"

THE FAMILY SAFE GUARD OIL

GRANGERS' BUSINESS ASSOCIATION,

Incorporated Feb. 10th, 1875. Capital Stock, $1,000,000.

OFFICERS and DIRECTORS:

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Grangers' Building, - - - - 106 Davis Street, S. F.

Consignments of Grain, Wool, Dairy Products, Fruit, Vegetables, and other Produce solicited, and advances made on the same. Orders for Grain and Wool Sacks, Produce, Merchandise, Farm Implements, Wagons, Etc., solicited and promptly attended to.

We do a strictly Commission Business, and place our rates of Commission upon a fair legitimate basis that will enable the country at large to transact business through us to their entire satisfaction.

Consignments to be marked Grangers' Business Association, San Francisco. Stencils for marking will be furnished free on application.

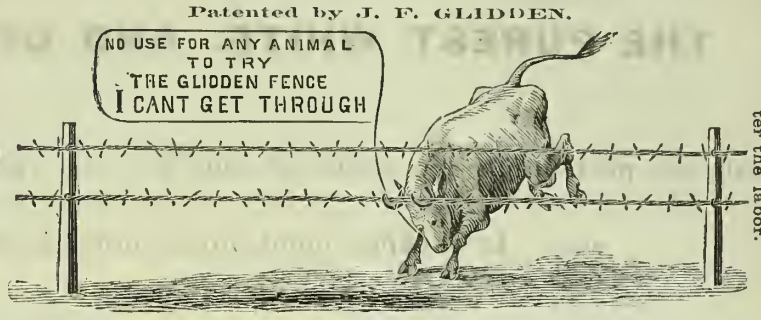
DANIEL INMAN, Manager.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



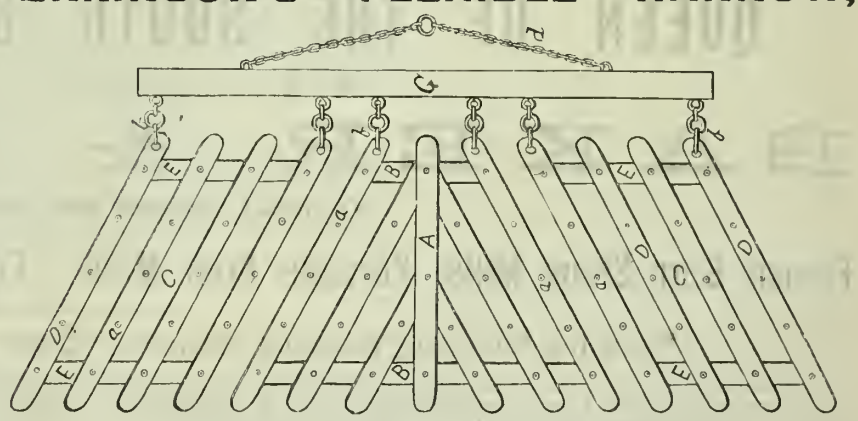
About one-half the cost of any other good fence, and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8 Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough into buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,

General Agents for the Coast — K and 10th Streets, Sacramento.

PERKINSON'S FLEXIBLE HARROW,



Invented by J. E. PERKINSON, of Santa Rosa, Cal.

Merits are claimed for this Harrow over all others in use. It gives good satisfaction in its work, and should be thoroughly tested by farmers. It has the build of durability. It can be made for $35 on this Coast.

This Harrow is made in three sections, which are connected to a draft bar by links and clevises. The bars are about four feet six inches long, and there are four bars in each of the two outside sections. The center section is filled up as seen in the engraving. The Harrow is made of good Eastern oak, with 63 steel teeth, and covers about 13 feet width of swath.

Reasons for the Superiority of this Harrow.

First—By the lightness of the draft, two horses, of ten hundred each, can draw it on loamy soil with ease.

Second—It is the best attachment in use. The draft bar is perfect. By using an equalizing chain to draw by, it keeps the Harrow in its right position and makes it easy to turn at a corner, as no wide spread Harrow can be turned with ease without those equalizers.

Third—Where other patentees have failed in setting the teeth so that each and every tooth will make a separate and distinct mark, this Harrow will do it on trial.

The Harrow is manufactured by the inventor, J. E. PERKINSON, at Santa Rosa, Cal., to whom applications for rights can be made.

HEALD'S BUSINESS COLLEGE,

No. 24 Post Street,

SAN FRANCISCO, CAL.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

LADIES' DEPARTMENT.—Ladies will be admitted for instruction in all the Departments of the College.

TELEGRAPHIC DEPARTMENT.—In this Department young men and young ladies are practically and thoroughly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars, E. P. HEALD, President Business College, San Francisco, Cal.

ANGELL'S CHARCOAL DENTAL SOAP

for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco.

H. K. CUMMINGS. 1858. H. H. RALSTON, 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer

FRED WOLFF,

CARPENTER and BUILDER.

Particular Attention paid to

Country Work.

Address, No. 433 FULTON STREET,

SAN FRANCISCO.

FARMERS write for your paper.

AVERILL MIXED PAINT,

MANUFACTURED BY THE

CALIFORNIA PAINT COMPANY.

THIS PAINT IS MIXED READY FOR USE.

THE PUREST WHITE, AND OF ANY DESIRED SHADE OR COLOR.

It will not peel, crack nor chalk off, and will last twice as long as the best white lead, prepared in the ordinary way. Is cheaper, handsomer, more durable and elastic than the best of any other Paint.

For Sample Cards and Circulars, Address

CALIFORNIA PAINT COMPANY,

115 PINE STREET, SAN FRANCISCO.

QUEEN OF THE SOUTH BARLEY AND WHEAT MILLS

MANUFACTURED FOR AND SOLD ONLY BY

BAKER & HAMILTON,

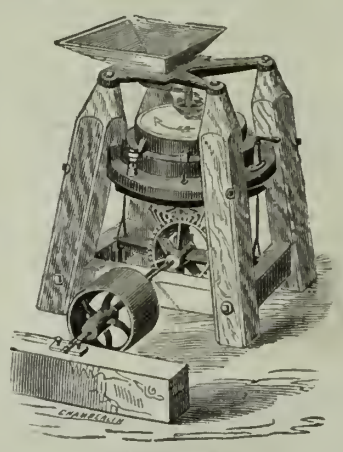
General Agents for Pacific Coast of all kinds of

French Burr Stone Mills, Portable Grist Mills, "Premium" Farm Grist Mills and California Feed Mills.

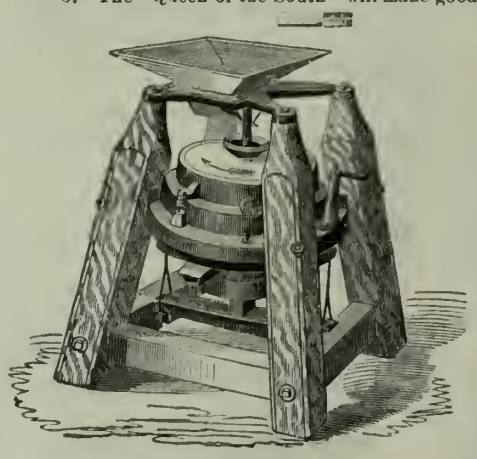
Read the following Reasons Why the "Queen of the South" Mills are Superior to all Others:

The faster a mill-stone is run, the more it will grind; because at each revolution the cutting edges pass by each other a certain number of times; thus, at 400 revolutions per minute, double the amount of edges will pass each other than the same stone run only 200 revolutions.

1. In the "Queen of the South," the *lower* burr is the running burr.
2. All upper-running mills are Cock-head mills.
3. The "Queen of the South" will take feed freely at all motions, from 100 up to 600 revolutions per minute; warranted against choking.
4. All mills wherein the upper stone is the running stone, will not take feed at a speed beyond 250 revolutions per minute; the grain will hang in the eye and choke the mill.
5. The "Queen of the South" will make good work under irregular motion (fast and slow.)
6. No upper-running burr will do good work, *or grind at all* where the motion is irregular.
7. In the "Queen of the South" the grain passes through the eye of the stone *at rest.*
8. In the Cock-head Mill the grain passes through the eye of the stone *in motion*; hence the choking.
9. In the "Queen of the South" there is no "*Bush*" at all, to run dry and get out o order.
10. In the mills of other Manufacturers, such as Burrows, Bradford, Norris and Coleman, whose make of mills have bushes, namely: a bearing and journal in the mill-stone, a very inconvenient place to get at, and which if not kept in proper order will burn out.
11. The "Queen of the South" can never take injury from running empty, because the under burr is kept off the upper by gravitation.
12. In the Cock-head Mill, the upper burr, while running empty, will clitter and clatter, and bound from side to side, knock-restless bed is thrown outward by a jerk, and finds its way to the skirt of the stone in the half of the time where a mill is grinding with the upper burr, being denied the aid of centrifugal law. By the upper-running stone the grain is brought to the skirt by a rolling process,



GEARED MILL.



PULLEY MILL.

round and round. Each revolution brings it outward, till at length it is discharged, heated by the long-continued mashing and rolling between the stones.

ing both burrs ont of face; ten minntes thus run will do a great amonnt of injury.

All grain of whatever kind and natnre can not be discharged too soon from between the mill-stones, provided the pulverizing process be complete. The shorter space of time the grain is kept between the stones, the cooler the grinding will be done; and the cooler the grinding is done the better. Flour or meal will keep fresh much longer when ground cold. Moreover, in the process of grinding, more or less carbon escapes. The cooler the grinding the less carbon will be thrown off; the warmer the grinding, the more carbon will evaporate.

Inasmnch as carbon is the preserving as well as nourishing quality or property of all grain, the less we lose by evaporation in the process of grinding, the better.

The "Queen of the South" will grind cooler—and, of conrse, lose less carbon than any mill where the npper stone is the running stone, because the grain is thrown off from the eye to the circumference by the law of centrifugal force. The grain lying on a

Farmers, if you want a Mill to grind your barley for feed, buy a "**Queen of the South.**" Owners of Threshing Engines, if you want to earn from $15 to $25 per day, clear of expenses till late in the winter, buy a "**Queen of the South**" Barley Mill, set it in a wagon, travel through the country, and grind the farmers' barley into feed for them. Address,

BAKER & HAMILTON,

San Francisco and Sacramento, California.

PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, SEPTEMBER 16, 1876. [Number 12.

The Horse's Foot and Its Diseases.—No. 4.

We give this week an engraving of the ground surface of the horse's foot as drawn by William Miles, the authority to whom we have had occasion to refer before. We have also a vertical section of the foot as laid down by Owen. The understanding of the parts delineated in this engraving is one of the most important points in the knowledge of the horse. The offices performed by the different parts of the ground surface of the foot and the proper treatment of them in the shoeing are matters of much controversy among professed veterinarians and practical men. We cannot in the necessary limits of these articles enter into the consideration of these debated questions. It is our design merely to give the plain points of structure, that all our readers may be informed of the names and relative positions of the parts, so that any discussion which may hereafter find its way into our columns may be more intelligible to all.

Fig. 13 shows the ground surface of the horse's foot. The highest point, *a*, is the toe; *a* 1 and *a* 2 are parts of the toe and are called the inner and outer toe. These parts, all taken together, constitute about one-third of the wall of the hoof, which is marked *e e*. The wall is deepest and thickest at the toe, and in an average of good feet stands at an angle of about 45 degrees.

The parts of the wall marked *b* 1 and *b* 2 are the "quarters." The quarters slope downward and backward and are thinner as they approach the heels. The heels are shown at *i i*. These projections are at the end of the wall, and here the wall is shortest and thinnest, being but about an inch in length and not more than a quarter of an inch in thickness.

Now, entering the circle of the hoof wall the first parts noticeable are the bars, marked *f f*. Here the wall seems to turn inward towards the center. The bars approach each other from each side and meet a little in front of the center of the foot. These bars in the feet of the wild horse have the appearance of braces, and the general opinion of writers is that they are intended to prevent contraction of the hoof.

Extending around the interior of the hoof, within the wall and terminated on either end by the bars, is a part called the "sole." It is marked *d d d* in the engraving. As may be seen, the sole is of the form of an arched plate, and is of horny substance. When the foot rests upon the ground the slope of the sole is upward from the wall to the bars. The horn of the sole is thinnest and consequently most elastic at the highest point, where it meets the bars, and thickest and strongest where it bears upon the wall. It is common to the most eminent students of equine anatomy, Dr. Dunbar among others, to compare the mechanism of the ground surface of the horse's foot to an arch. Of this arch the wall constitutes the base. It is an elastic arch and thus a springy quality is given to the foot, which makes its work easier, and also prevents injury to the delicate structure from concussion with hard surfaces.

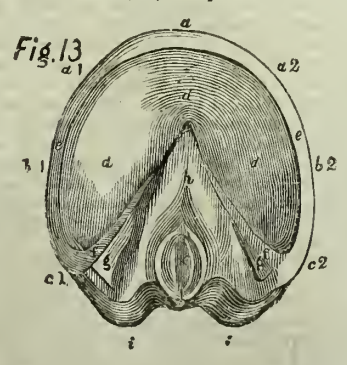
The "frog" is shown at *h* in the engraving. Following the comparison of the foot to an arch, the frog becomes the keystone. The frog is wedge-shaped and is in itself composed of elastic substances, and does important service in securing the power of spring to which we have alluded. In the center of the frog is a deep, narrow depression, Fig. 13, *k*, which is called "the cleft of the frog," and there are two channels, one on each side of the frog, which are called the commissures. They are marked *g g* in the engraving. Concerning the result of the action of these parts Dr. Dunbar writes: "With a broad, thin, natural outer frog the channel is so large and the cleft so low that the sensitive frog, filling the whole space, enlarges it, which increases its elastic power so that in the violent exertion of the horse it aids him as the spring-board does the gymnast when free to spring down like the board; but if compressed from below, the outer or horny frog affects the action, just as the spring board would were there a prominence underneath that would check its downward action." From these premises Dr. Dunbar draws the rationale of his method of shoeing, which does away with the systems which aim to exert pressure on the frog.

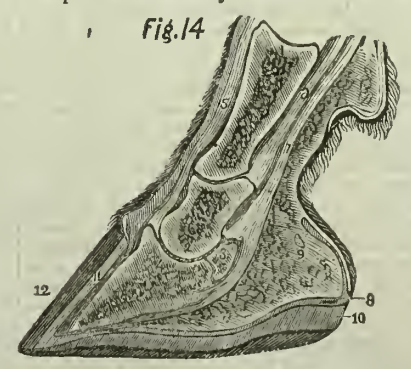
Fig. 14 shows a vertical section of the horse's foot, showing the relative position of the bones which we have described in former articles and delineating the muscles by which the movements of the foot are accomplished. The muscles of the foot are of two classes, the "flexors," which bend the foot backward, and the "extensors," which throw it forward. The flexors are two in number, and are called the *flexor sublimis perforatus*, marked 6 in Fig. 14, and the *flexor profundus perforans*, marked 7 in the engraving. The extensors, which, of course, run down the fore side of the leg, unite before they reach the hoof and form the strong united tendon marked 5. By an examination of the engraving, Fig. 14, it clearly appears in what manner the different bones of the foot are moved and made to do their work. A full explanation of Fig. 14 is as follows: 1, pastern bone; 2, coronet bone; 3, navicular bone; 4, coffin bone; 5, extensor tendon; 6, part of common flexor tendon; 7, deep flexor tendon or perforans; 8, posterior expansion of great cartilage; 9, soft cushion of the heel; 10, section of horny hoof; 11, sensitive hoof; 12, anterior section of cartilage spreading over the coffin bone.

Of these parts we have spoken heretofore to greater or less length. We wish to refer now especially to the navicular bone, marked 3 in the engraving. It is a peculiar little bone wholly imbedded in the muscles, but its office is of the highest importance. It is subject to disease, as we shall show hereafter, and in its disordered state is responsible for the greater part of the lameness to which horses are liable.



LANCASTER FARM.





ANATOMY OF THE HORSE'S FOOT—NO. 4.

A Decision on Sale by Sample.—In the Nineteenth District Court on Monday the suit of Hugh Hughes against Bray Brothers was decided. Several points were raised of interest to all who deal in grain. The plaintiff claimed that in November, 1874, he bought by sample from Bray Bros. 200 tons of "good brewing barley," payment being guaranteed by Robert Watt of the Swiss-American bank. Hughes sold the barley in advance of its delivery to a Chicago firm and made a contract with the Central Pacific railroad for its transportation. He claims that of the barley delivered over 100 tons was what is known as common feed barley and inferior to the sample upon which he purchased. Bray Bros. claim that the sale was made to Robert Watt, and not to Hughes; that there was no sale by sample to either, and that the barley as delivered was accepted. Judge Wheeler held that if there had been a sale by sample and the barley delivered was of inferior quality, the purchaser had a right to accept it as delivered and sue the seller for his breach of contract. The jury gave a verdict for the entire amount claimed, $824.—*Chronicle.*

Storing Barley.—A son of an old subscriber of ours, at School House station, San Mateo county, while hunting, last Saturday, shot a squirrel and found 427 barley grains stored away in his chops.

The *Consuelo* won the Ashbury cup in the regatta of the San Francisco yacht club on Admission day. The *Pearl* won the second prize, a silver punch bowl.

Lancaster Farm.

We print on this page an engraving of a scene on an Eastern farm, which will fill the mind of many a reader with thoughts of the years agone and recall a flood of memories. It is called a Lancaster farm, and the scene is located in Lancaster county, Pennsylvania, on the line of the Pennsylvania railroad. The peaceful landscape lies on historic ground. Where now are spacious and beautifully constructed barns and tasteful, elegant homes, once swept the conflict which marked the early days of settlers and pioneers. Not far away rushed the tide of the Revolution. But it is not of the early days of Lancaster nor of the later days of Lancaster that we would speak especially. We prize the picture for what it suggests fully as highly as for the beauty of its outlines. It is not meet that we should forget the old scenes whence many of us came. On these Eastern farms was nurtured and fostered the spirit and the strength which has given us the mastery in the later progress of this country. On these dear old farms we learned lessons of manhood, of self confidence and of trust above. The influence of the old home has shaped many a life in far off lands. Though now our lots are cast in scenes of more abundance and of greater rewards for toil, though our skies are more genial and our air carries until nightfall the bright clearness of the morning, we can well stop for a moment and think of the old home scenes and the joys which they bestowed even in the midst of labors. As we look upon the scene before us an indescribable longing comes over us to loll beneath the graceful elms which shade the dwelling and to watch the birds as they flit in and out of the untrimmed hedge-row. Not less fresh in memory is the glance across the meadow to where the spire of the village church rises. As the scene impresses us we are prone to think of the great numbers who have gone from our State during the summer to visit the great occasion at Philadelphia and to revel in the scenes of childhood. They have seen the things which we now recall in memory. But we hardly envy them. We doubt not that many of them have found the scenes they longed for ruthlessly invaded by the demon of change. Nor has change been absent from their own minds. The calm calculation of manhood plays sad havoc with the distances of childhood's measuring. The sober realization of life's struggle brushes away the glow of childhood's coloring. Familiar scenes are similar but not the same. The joys of the old companionship are also gone. We care not to realize the change. But memory, ever returning laden with rich treasures, revels in the scenes which this Lancaster farm suggests.

Ranch Division in Napa.—There is noticeable in different parts of the State a growing disposition to cut up the large tracts of land and place them in small farms within the reach of purchasers of moderate means. This movement is altogether praiseworthy. It will increase the number of our homes and increase our production to a great degree. The latest division which comes to our notice is the one advertised in another column. Sterling & Thompson give notice of a sale of 500 acres of rich river bottom and alluvial table land in small parcels. This land lies in the flourishing city of Napa, and is represented as being admirably adapted to the finer arts of agricultural production. We would suggest that the advertisement be generally read and the land thoroughly examined before the date of sale.

Tall Corn.—At the *Fair Daily* stand may be seen a stalk of corn, complete from root to tassel, with five and a half yards between them. In other words, it is a sample of corn 16½ feet high, and those who are not familiar with this sky scraping style of California vegetation should not fail to feast their eyes upon its altitude. The tassel grew up and up until the air become so thin it had to stop, and the ears have to be knocked off with a pole. This corn was grown by F. Beridon, of Turlock, Stanislaus county, and may safely be put down as of the "Large Yellow" variety.—*Mechanics' Fair Daily.*

CORRESPONDENCE.

Notes from Washington.

[Written for the PRESS by CARRIE A. COLBY.]

It is a dull, cloudy day, and if the truth were confessed I am a little "blue" at the thought of my bairns 3,000 miles away, and we, at this first of August, still held at the national capital "prisoners of hope."

If I only had a RURAL PRESS to beguile the time until my patient spouse returns with the New York papers I could be content, but daily hoping to leave here I could not risk losing anything so valuable by having it sent here upon uncertainties. I did gain one glimpse of a copy while at the Centennial, looking for Mr. Ewer in "Rowell's newspaper building," which was no small satisfaction. So while I cannot read the PRESS I will try writing a short letter for it as an antidote for my homesickness.

Apropos of my own appreciation of our Pacific coast agricultural organ, I will say that I met a Federal colonel of the war who wants to go to California and become a farmer, who remarked that he had read a few copies of the RURAL PRESS and "thought it one of the best papers he had ever seen."

Extremes Meet

In Washington life and the style of living into which Virginians have fallen since the war. We ran down to Gainesville, Prince William county, a few days since, at the urgent request of a lady who has a country residence a mile from that place, being persuaded by the promise that we should see the Bull Run battle grounds, and her own home, which was at different times during the period of the war alternately used as headquarters of the Federal and Confederate officers.

We took the train at 4:20 P. M. on the Virginia Midland railroad, and a ride of 40 miles through a fine rolling country along the little, muddy stream of "Bull run," which crosses the road a little this side of Manassas junction, past the earthworks that were thrown up at that place in expectation of a great battle that was really fought at Blackburn's ford, on Bull run, brought us to the town of Gainesville, where an ox team and wagon awaited our coming. The station house was also a store, and being rather limited we took our position on a pile of boards with two colored servants, where we could watch the glorious sunset and the loading of the wagon. Four large trunks were first bestowed, then a choice of seats tendered to me, which was chosen on the hindermost trunk. Then the colored woman, with deponent's satchel, next our hostess with a wooden bowl of eggs, purchased as an adjunct to the Sunday dinner, beside her the daughter, a delicate girl of 17, the colored boy in front with a brace of chickens, and lastly the driver who held the rope attached to the wrinkled horns of the near ox (which must have seen service in the war), and a whip, by the dextrous use of which we were carried over the rocky road and safely landed at the door of the hospitable Virginia mansion. A supper of biscuit and fresh butter, blackberries and cream and tea was soon served, and at an early hour we were shown to a large, airy chamber overlooking the country from two immense windows, where we slept the dreamless sleep of the weary. In the morning we walked down the garden path to see

"Lady Custer,"

A mare that was shot under Gen. Custer and left with our hostess to be nursed, a paper from the General conveying all right and title in the noble animal to our friend, Mrs. M. She is a bright bay, and has repaid her present owner for all her kind nursing by five fine colts, and good honest service on her own part. We petted and caressed her, thinking of the sad fate of her former master, of whom all speak so fondly, and who was so girlish in appearance at West Point as to gain the sobriquet of "Fanny" among his comrades.

How tangled seems the skein of life when we know that Gen. Rosser, Custer's friend and companion at West Point, but arrayed against him on the late battle fields, now craves the privilege of going to avenge his death upon the savages who so overwhelmed him in the late slaughter of the Little Big Horn river.

Then and Now.

In a short time we were surprised to meet the mother of our hostess, an old lady of 80 years, who had walked from her neighboring farm to welcome her daughter home. Aside from being deaf, she was in full possession of all her faculties, and a more lively, intelligent octogenarian it has never been my lot to meet. After giving us her impression of California as gathered from her sons, two of whom reside in Mendocino county, and saying she would visit them if she had the money, she proceeded to draw a comparison between life in the North and South 60 years ago. She had lived in that very neighborhood for 65 years, and married a Presbyterian clergyman from Connecticut. Once she had visited his friends, and must say she was never so tired of anything as their diet of "pie and cake." She thought she should never want any more. Still Northern people did not live as well then as Southern people in the same circumstances. If there was anything fine raised on a Southern farm it found its way to the family table. Connecticut farmers lived too near the New York market, and wouldn't even indulge in roast pig, because it would bring so fine a price, and they wanted the money it brought. The comparison brought to mind a remark of one of our popular lecturers last winter, that people of the North and South ought to be "rubbed together" and thus wipe out mutual prejudices, and the result would be a splendid average—the golden mean of humanity. Going back to the early days of Virginia, she told of the small houses with two rooms below and half a story above, where guests congregated all summer; the gentlemen disposed on cots upon the floor below at night and the ladies bestowed up stairs; the former making their toilets out on the porch from a tin wash basin and roller towel, looking every bit as spick and span as now-a-days; the ladies without Saratoga trunks, but often sending their muslins to the laundry, which, from the unlimited number of negroes, was always equal to the emergency.

The incipient efforts at establishing religious privileges were less encouraging than characteristic. The county seat being removed a short distance, after a court house had been built with a race track around it, it was first suggested to use it for a school house, but there being no public school system, it was finally purchased for a church. Accordingly the gentlemen gallantly escorted the ladies to worship and tried the speed of their horses outside during services within.

Parties and horseback rides, barbecues every two weeks, visiting and gayety made up the sum of life, at least for the young folks. She admitted it was a "trifling" way to bring up a family, and added, "the Virginians have eaten themselves up, and the present generation will never learn to work. They are too old and too much accustomed to being waited upon. When money ran low we sold a 'nigger' and lived on that as long as it lasted. But I'm glad the negroes are free. It was never intended that man should own his fellow-man, and it is better for the white people, though it makes hard times just now."

Neglected.

The land in this locality, where the war centered and surged, is growing up to weeds, and the corn poorly cultivated even where there is an attempt at raising a crop. The pastures are growing up to timber and there is no market for wood. Young men are discouraged because wages are so low (only $10 per month), and the prospect is that this portion of Virginia will be left to become a "forest primeval" unless some unexpected good fortune overtakes it speedily. Visiting the valley of the Shenandosh last winter, my better half found the prospect more encouraging.

During the day we rode out on horseback to the battle ground of

Bull Run,

And found the pile of stones that marks the spot where Stonewall Jackson held his line against the federal troops, with Generals Lee and Longstreet on his right along a trench where hundreds fell until they were piled in heaps, and where after the battle the people gathered and crowned this monument with garlands to commemorate their victory. On that eventful day, July 21st, 15 years ago, as our friends heard the roar of cannon and tramp of men, they—two women—mounted and rode to a hill overlooking the battle, where the shells fell at their very feet, and watched the smoke and carnage, heard the shouts of command, saw the charge and retreat, and then went home to see the house filled with officers and their wounded, the porches lined with dying soldiers, whose groans sounded in their ears day and night for many weeks, encompassed by two or three hundred thousand men who pitched their tents in the grounds, tied their horses to choice shade and fruit trees, burned fences, set fire to the forests on Bull Run mountains for 30 miles and even to those about the dwelling, lighting up the wierd night scene as if it had been the day of final judgment.

Coming to a fence we dismounted among blackberry and haw bushes, in the quiet shade of oaks and lindens, and found it hard to realize that this was ever the scene of carnage between brothers of one family and blood. The fences are rebuilt, the corn again waves in the peaceful breeze, flocks and herds graze upon the hillsides and man has returned to home life and pursuits. Riding back to the mound of stones our gentlemen dismounted and prying among the few that remain after the raids of relic hunters, found a piece of shell, a bit of copper fuse, and a part of one of Stonewall Jackson's frying pans, all of which are carefully hoarded as mementoes of our trip. I must say I was surprised to find with what amiability many of the inhabitants in this locality accept the situation. They are no less hospitable than formerly, but explain that "you must take things as you find them," so their floors rot away, shutters drop from the windows and weeds grow in place of flowers, but still they are content to sit and tell you how things were "before the *war*."

Another night's rest in our cool, ample quarters, an early breakfast, and a gallop to the station to meet the six o'clock train, gave another spicy taste of country life and another gem for the storehouse of memory.

At the station we asked the man in waiting why the country was growing up to weeds and timber. His sage solution of the problem was "too much land!"

Well, we have trespassed, as usual, the bounds of reasonable forbearance, and with a prayer for the sunny South, for true union of heart between their people and the Northern brotherhood, we say peace be with us all, and especially the good fellow Patrons of California.

Growing Mangolds.

EDITORS PRESS:—One thing leads to another, and to give a satisfactory answer to Mr. Berwick's inquiries will lead me to an explanation of my way of feeding cows, in order that he and others may understand how I manage to feed large quantities of mangolds without injury, but with positive benefit to my stock.

First of all I will dispense with the last paragraph in his letter of inquiry (in PRESS of August 26th) by saying that to have cows semi-paralyzed, as he states, by over-feeding of raw beets, must be the result of gross mismanagement, simply from a want of suitable quantities of dry food to assimilate with them in digestion.

I could easily understand how cows could be seriously injured by being fed on frozen roots under any circumstance, but would certainly consider him anything but a wise man who would feed such to live stock of any description.

My Method of Feeding Dairy Cows,

And calves that require feeding generally run with them, is about as follows: The cattle are out of doors at nights, in all but wet, cold weather. The cut feed, mixed with meal, is put in the mangers (after the cows have gone out at night) ready for morning, when they are got in at 4 o'clock. After eating the cut feed they have all the hay they will eat; then they are let into the field, where the mangolds are fed to them direct from the wagon, leaves and all, just as they have been pulled out of the ground and the dirt dashed off them. I take care that they are scattered far enough apart to allow the cows to eat without fighting each other. I leave two or three roots in a place—according to size—eight or 10 yards apart. The number of cattle fed in this way is from 50 to 60 head, and two or three two-horse wagon loads per day are used from September to about the month of March—if they last as long. To feed them in this way requires comparatively little labor. Two broad planks are laid on the running gear of a wagon, on which the mangolds are loaded in two rows—one on each side, with the leaves outward, consequently keeping them clean. By thus keeping them clean, cattle will almost invariably eat off the leaves first. In this way one man can put out a wagon load in about an hour or less. The work, in my case, requires two or three hours a day for a man and a pair of horses to pull, clean, haul, store and feed roots to 60 head of cattle, and they are fed with no sparing hand.

The cows come in to milk about 3 P. M., when they go through the same courses as in the morning. I consider 80 pounds per day a good feet of roots for a milch cow, but I have no doubt that many of my largest sized cows often eat as much as 100 pounds per day. I have just received a combined root slicer and pulper from England, but only look upon it as a provision for a year of scarcity, which I hope may never come.

Answers to Mr. Berwick.

I will now begin at the beginning of Mr. B.'s inquiries, where he wants to know what object I have in sowing my beets so late in the season. One reason is that sometimes I can't sow them any sooner if I would, because I cannot prepare the land till I have got in my other crops. My general practice is to sow three or four acres of Swede or Yellow Aberdeen turnips and mangolds as soon after the first of March as possible; or as soon as the state of the land will admit of it. I begin to use them early in July, or about four months after sowing, which gives ample time for turnips to grow; at all events they do not do much good after that time, provided they have been pushed on well at first. A bit of good Peruvian guano is an excellent thing for pushing them; superphosphate would do if it could be had.

Another reason for my late sowing is that the work is done when there is not much else to do for either men or horses between seedtime and cutting the hay crop, which latter begins, in this neighborhood, about the middle of May. The dates of my sowing mangolds this year are as follows: April 29th, four acres; May 17th, six acres; May 27th, eight acres; 18 acres in all, on which I used 130 pounds of seed, and at the present time the last sowing looks best—perhaps because it was best manured.

There is no doubt, as Mr. B. says, that plenty of rain during the first two months promotes the growth of the plants, but if there is much rain after sowing there will also be plenty of weeds, and plenty of weeds means plenty of labor, which is just the thing I want to avoid—by sowing late. One trouble with early sown crops of mangolds, on ordinary land, is to maintain the vigorous growth which Mr. B. attributes to plenty of rain in the early stage of plant life, through our long dry summer—provided you get that growth. Mangolds do not like wet, cold weather when young, and if the land is wet and cold the result is semi-starvation of the plant. As a rule, those sown after the ground becomes warm will take the lead and make the better crop if required for use in the following winter or rainy season, for, as I said in my former letter on the subject, those sown late, with proper cultivation, both before and after sowing, will maintain a vigorous growth all through the dry season and increase in size without deteriorating in quality during the rainy season; whilst with the early sown ones it will be found different. With whatever increase in weight there is, there will be a proportionate decrease in *quality*. They will grow thick and coarse about the neck, where the principal increase of weight will be found to be, and with the second growth of the leaves will begin the deterioration in quality. To prove this I might refer to statistics on the production of sugar from sugar beets, but I simply state my own experience and observation on the subject. Therefore, for early using I sow a few early, but for the bulk of my crop I sow at such a time as I think they will keep on with the first growth till I expect to use them. Sometimes I store two or three weeks' supply in the month of December to feed to the cows in the house on wet, stormy days, but it is very seldom that there is occasion to use them, there not being on an average of winters more than about half a dozen days on which they cannot go out of doors at least once a day to eat them. If it is a little cold (for this country) the exercise of eating them whole or uncut helps to keep the cows warm. I have fed them in this country in the way I have described for 15 years, and never had a cow take any harm from them.

Cultivation.

I believe I have now answered—it may be in a rather general way—all Mr. B's inquiries but the one relating to hand hoeing.

By late sowing I get few weeds, and by sowing in drills three feet wide I can destroy the bulk of the weeds by "scruffling," as I commonly call it. My scrufflers—or cultivators—contain five teeth, (bent forwards in order to give them *grip*, or in other words, make them take hold of the ground,) with two knives behind, one on each side, and nearly meeting each other in the middle. These knives follow the teeth after they have loosened the ground and pretty effectually cut out the weeds by going twice on a row, gradually working closer each time we go through them as the plants get bigger, and by the time the plants are five or six inches high and ready for thinning a practiced hand will not leave more than one or two inches wide in each row for hand work. If he knows his business he will not be afraid of getting close in to the plants and knocking them about a bit, for it does not hurt them but rather does them good.

Two years ago I could not get my crop thinned in time with my own men, so I hired three Chinamen to thin eleven acres, which they did at the rate of two acres per day—the three Chinamen thinned and weeded 11 acres in about five days, and did the work well.

I fully intended to have touched upon all the above points in my former communication on the subject, but the length of it prevented me, so I concluded that if any one took interest enough in the subject they would "draw me out" on it, and I am glad our friend Mr. Berwick has done so.

ROBERT ASHBURNER.

Baden Station, San Mateo Co., Sept. 5th.

New Comer in a Fix.

[Written for the RURAL PRESS.]

New Comer.—"Good morning, neighbor A.; happy to see you. I was just hitching up my team to plow that rich canyon of mine, and was undecided whether to plow deep or shallow."

A.—"Ah, my friend, I perceive you have as yet but a limited knowledge of California agriculture. It is a waste of labor to plow it at all; when the weeds get so large as to obstruct the plow, turn them under, and let it alone till planting time."

N. C.—"Many thanks; but I must live and learn."

Neighbor B.—"Why do you not have your plow in your bottom land to loosen up the soil so it will absorb and retain all the rains that may come? You are losing precious time."

N. C.—"Why, I thought it unnecessary to plow only to keep the weeds down till planting time."

Neighbor B.—"There is wherein you greatly err. Plow repeatedly; you cannot plow too much, or too deep. The lighter, looser, more comminuted you can get the soil the more moisture it will absorb and retain during the growing season."

Friend C.—"Well, New Comer, you have a fine lot of fruit trees here; only yearling trees, too; well, that is the right age; their growth will scarcely be checked and they will excel older trees in three years; but you are losing your labor setting them here on this hill—too dry; they will all die ere the dry season is past."

Friend D.—"Morning, New Comer. That is right; this hill is one of the best places in the

country for fruit—you have a better idea of California peculiarities than I had imagined; but you have failed in that you did not get larger trees. Two, and even three or four year old trees succeed here just as well as yearlings, and save much time and expense protecting them from rabbits, squirrels, etc."

N. C.—"I tie cornstalks or rags to prevent gnawing, and I think there must certainly be less shock to the system of a yearling tree in transplanting than in one of older growth; still, I find that many of the time-honored practices of other States do not apply in California."

E.—"Hallo, my agricultural brother; what are you about? Planting corn? Too early by a month or too. It will not succeed. The cold spring rains will check its growth, and it will be worthless."

F.—"Good! New Comer, you will have some early corn—no one else is ready to plant yet. I wish I was ready, for the earliest usually succeeds the best here, as in the 'States'—no danger of getting it in too early."

N. C.—"What shall I put that side hill to, just back of the barn?"

F.—"Anything you choose, and it will do passably well."

N. C.—'But G. says there is no soil there; nothing will grow—not even white beans. H. says all kinds of fruit will do well there, while I. says that I may succeed in raising a few grapes there, and J. says it is the best grape land in the State; they will not rot—they will be much better and fetch a higher price in the market than those raised on richer land; and K. says he would not plow it for it. I suspect some of my friends and neighbors have been here a little longer than others; and, moreover, I firmly believe that a man who understands agriculture, horticulture, pomology, pretty well in the 'States,' is a pretty ignorant sort of a fellow when he first comes to California. He may take the 'RURAL PRESS,' and other agricultural papers, but that is not sufficient. Why have you not sufficient enterprise on this coast to publish a book on California agriculture? L. tells me my ranch is just adapted to fruit, and nothing else. M. says fruit will not succeed in this locality. N. says almonds is the best crop to raise. O. says almonds will not succeed here, but apples, peaches and pears will do well; while P. has the candor to say that although he has been here some years he does not know what kinds of fruits will prosper—one must experiment at an expensive rate and find out.

"A book compiled from extensive researches of the oldest and best farmers of the State—a book describing varieties of soils, climates, manures, crops adapted to particular kinds of soils, times and methods of seeding, fruit and forest trees and soils and situations to which they are adapted, farming implements, stock, etc.; such a book, I opine, is sadly needed."

"O, yes, for you new comers it would doubtless be a fine thing, but for us who have been here some years, and have kept our eyes open, we understand it already far better than any book could teach us; and your book would meet with but an indifferent sale among old Californians.

"But I have over-stayed my time. Good-day. Do not neglect this side hill—it is the most valuable land you have got."

N. C.—"Good-bye, and remember friend F., I shall expect you to contribute some of your knowledge towards the compilation of my book, and when published, buy half a dozen copies—one for yourself, the rest for your friends just in from the East." S. P. SNOW.

Western New York Fair.

EDITORS PRESS:—The sixth annual exhibition of the Western New York agricultural society was held at the Rochester driving park, August 29th to September 2d. Like most fairs this season it was not a success pecuniarily. The hard times, the general desire to attend the Centennial and the rapid increase of base-ball matches and driving parks all tend to lessen the number who attend agricultural fairs, and the early day at which this fair was held prevented as good an exhibition as might have been made later. But on the whole the exhibition was very fair, with a moderate attendance—not, however, so small as to leave very much debt for the year. The show of fruit and flowers was very large and complete, there being 168 varieties of apples, 165 of pears and 75 of plums in one collection, and several more nearly as good. The vegetable and dairy hall was well filled, as well as all the other halls, except machinery hall, which was very light. The stock was good and entries full, and the baby show carried the crowd. J. B. J.

Rochester, N. Y.

COAL BURNING.—To determine the amount of coal in pounds which will be burned per square foot per hour with chimneys of good proportions, Professor Thurston's rule is to subtract one from twice the square root of the hight of the chimney. To determine the hight of chimney required to give a certain rate of combustion, add one to the weight to be burned per square foot per hour; divide by two and square the quotient.

REMARKABLE ARTESIAN WELL.—At Prairie du Chien, Wisconsin, an artesian well daily discharges 869,616 gallons of water. The well is only 960 feet deep, but has head enough to raise the water 900 feet above the ground.

HORTICULTURE.

A California Peach at the East.

One of our native California fruits has made a favorable impression at the East. We read in the *Gardeners' Monthly* that samples of Briggs' Red May peach have been received from John Rock, of San Jose, and Mr. Meehan, the editor, writes of it as follows: "It is round, very white skin with red cheeks, seven to eight inches in circumference, rather tart in flavor, probably from the distance requiring them to be gathered before quite ripe, but very juicy and refreshing; flesh and stone greenish white. This was as large as any of our best peaches, and equal to the average in general qualities. It was the largest early peach we have ever seen, and if in this climate it should prove as large and as good, it would soon put all those we have aside. The actual value, however, of course depends on how it compares with our popular kinds when grown side by side in this latitude, or with others in California." Of this last point Mr. Briggs says: "I have been requested by John Rock, of San Jose, Cal., to send you by mail specimens of the Red May peach. It originated with me, and is fully 20 days earlier than Hale's Early. We have had a remarkably wet season, and the peach on that account is not as well flavored as usual. The Red May has been placed on the San Francisco market for the last four years, on from the 27th to the 30th. There have been at the date of this over 5,000 bushels of the Red May placed on this market. Last season they were all gone on the 18th of June."

Hints on Orange Growing.

We find in our exchanges from the Southern States some points on the treatment of the orange tree which may be of use here:

Sap Disease.

A correspondent of the New Orleans *Home Journal* writes: When I find one of my orange trees with sap disease, something like honey running out from the bark, generally from two to eight or 10 inches from the ground, I at once take knife, chisel and mallet, remove the bark until I get above and below the disease, and cut out all the *black* wood from the tree and diseased roots—then I use gum shellac dissolved in alcohol—applying it with a brush. Very soon new bark is made, the tree renews and is all right. When taken in time this treatment has cured every tree for me.

Scale Insect.

A correspondent writes to the *Florida Agriculturist*: A little more than a year since I had four trees on which the insect made its appearance. Three of these were but slightly touched on the ends of the young branches. The other was completely covered with scales from the roots to the extreme ends of every limb and branch. The whole tree (a six year old) looked as if it had been scorched in a hot fire, and I supposed it was past all hope of recovery. Extreme cases prove the remedy, and I determined, though with slight hope of success, to try it. I boiled an ounce of fine cut tobacco in a gallon of water, till the strength was extracted, strained off the water, and dissolved it in an ounce of sulphate of iron. With a hand brush I applied the solution to the stem and larger limbs, and with a syringe thoroughly sprinkled the leaves and branches. In a week not a living insect could be found on the tree, and it is now as thrifty as any I have. The other trees were entirely relieved by the syringe.

BEES.

Rape as a Honey Plant.

K. O. Krusche, Berlin, Wis., writes the *American Bee Journal:* As a honey producing plant, the rape is scarcely second to the linden, producing a beautiful golden honey of good flavor, and is in blossom when nearly everything else is out of blossom, commencing about August 15th, and continuing a couple of weeks. As a farm crop, it is as good if not better than wheat. The time for sowing it is from the middle to the end of June. This gives time to prepare the soil after other crops are in; or, if wheat or corn should fail in coming up, rape can be sown in their places. It is harvested from the middle to the last of September, after all other grain is harvested. It does not impoverish the soil, but benefits it. From five to eight bushels more per acre of wheat are raised on ground which had rape the previous year. It lets no weeds grow after it is fairly started, growing very dense and its leaves completely shade the ground, therefore it does not suffer from drouth like other grains. The seed has a good cash market at Fond du Lac, Wis., where oil is extracted from it, and brings from $1.50 to $2.00 per bushel. From 10 to 18 bushels are generally produced per acre, but it is oftener over than under this estimate. Two quarts are sufficient to sow an acre. Thousands of bushels are annually raised in Calumet county, and it is just as staple as wheat. Those doubting my statement I refer to Report of Agriculture, 1870.

A Way to Unite Hives.

There are sometimes in bee culture occasions when it is advisable to "transpose and unite," as we used to say in algebra. A writer in the Germantown *Telegraph* gives the following process: Suppose you have four hives and wish to reduce them to two; if in the common box hives, two of them must be fumigated with smoke of the puff-ball until the bees fall in a heap, and then after partially fumigating the other two, place them over the fallen bees, and as they revive they will ascend and join the others if properly done; all being of the same scent they will unite.

If, however, the bees are in movable comb hives, the operator first puffs a whiff of smoke under the cover of the hive, then removes it, then sprinkles the combs and bees with a sweet syrup of sugar, scented with peppermint, and then gently lifting the combs with a feather sweeps off the bees into a tin vessel, (a wash boiler is good). These bees, after smoking and scenting another hive, may be poured out in mass on the top of the bars, and giving them one more shower of peppermint syrup, put on the cover and move the hive into a mid-way position, supposing the hives were but a few feet apart.

THE SWINE YARD.

Well-Bred Pigs.

Why is it that farmers will breed and feed inferior stock, when, by introducing the blood of our well established breeds, improvement can be so cheaply effected? We are led to ask the question from a little of our own experience. Last winter we bought several breeding sows; they were such common hogs as are generally raised. With some of them we bought their pigs. One of them had a litter of six; the sow was neither good nor bad. She was just a fair porcine specimen. Her pigs were large enough, but as they grew older we were not pleased with them; they did compare favorably with our half-blood Essex of equal age. Their hair, or bristles, seemed to grow so thick and curl so tight as to prevent the free growth of carcass. The same sow had a litter of eight pigs last spring from our Essex boar, and it is one of the finest litters of half-bred pigs we have ever raised. It is a moderate statement to make, that each pig is worth twice what any of the pigs were worth which we purchased with her.

The gain from the service of a good thoroughbred boar over that of such animals as are generally found in the country, is certainly several times what any breeder would presume to ask for the service of such animal.

The little pigs which we have mentioned are now less than three months old; they are growing finely and are fattening rapidly. They can be made good pork at any age. Pigs of the common hogs cannot be profitably fattened till they are a year or more old. The waste to farmers of the country, occasioned by poor bred stock, is great, and the saving gained by substituting the improved breeds and their grades would more than pay the cost of our agricultural societies, clubs, Granges, fairs and farmers' papers. We would not recommend all farmers to seek thoroughbred stock. The prices at which such stock is held are above what it is worth for practical farm purposes; but what we do unequivocally recommend is for farmers to grade up their stock by patronizing more generally such good animals as enterprising farmers in their neighborhood purchase. Or, if there are not such animals of the breeds suited to their needs, either purchase them themselves, or induce their club or Grange to make such purchase, or combine with some of their neighbors to effect the improvement. We have had several years' experience in breeding and feeding hogs, having fed from 50 to 200 each year. We have fed grades of the different breeds; we have fed common, coarse hogs, and do not hesitate to say that, in raising our own hogs for feeding purposes, we would rather pay ten dollars for each service of a good Berkshire or Essex boar than to have the free use of a common, coarse bred hog. We have bought hogs from the West, and have been pleased to note the rapid improvement in the class of hogs shipped East during the last few years Indeed, the Western farmers, who have made a business of pig raising, have made much more rapid improvement than our Eastern farmers, where pigs are raised on a smaller scale.—*The Husbandman.*

STOCK BREDERS.

Guinea Grass.

We are aware that some experiments are being tried in this State with a forage plant known as Guinea grass. The seed was introduced from Jamaica. As soon as certain judgment can be formed on the plant we are promised an account of its value. We read in the *Florida Agriculturist* that the plant is giving good satisfaction in that State. The *Agriculturist* says:

The Guinea grass is easily propagated. Those who have it near Jacksonville have only to allow it to cast the seed, and the next spring multitudes of young plants spring up around. That is the reason we recommend planting ten feet apart at first, as the seed that is cast will meet up the next year. Mr. Styles near Jacksonville, sowed some seed in a hot bed last winter, and he got about 20,000 young plants. Major Drake, of Yalaba, in Sumter county, in this State, has four acres in Guinea grass, that supplies sufficient feed for all his cattle and horses. Mr. Eichelberger, of Marion county, is so impressed with the value of the grass that he intends planting out 100 acres. It can be seen about Ocala over six feet high. We do not think there would be much difficulty about the Guinea grass plants. There are a good number to be had about Jacksonville, and quantities are in Marion and Sumter counties, but people must take care that they get the right grass. A *spurious* grass called Guinea grass has been brought here from Alabama and passed off as the true one. There is as much difference as between chalk and cheese. The true article is unsurpassed for its fattening qualities. The leaf is fine. It has no fibrous running roots, and the seed is quite different from the other, and it will grow on the dryest land. The Alabama grass is coarse, likes moist land, has strong, fibrous roots, which it is impossible to eradicate if ever it gets into a place. The blade will cut like a knife. We do not consider that the nutritive quality of this grass can be great, for too much of it is taken up by the underground suckers, as is the case with most root plants. The whole of Southern Florida, from the Atlantic to the Gulf, below severe frost, will answer for cattle raising in the manner we recommend—in fact, in any part where the Guinea grass roots are not killed out by the cold. For, be it remembered, a Guinea grass pasture once established is almost everlasting. Only gross neglect will eradicate it. Some have been flourishing for over 100 years in the island of Jamaica. They must not be fed down too low, but closed up at certain seasons after feeding to grow again.

POULTRY YARD.

Mr. Young's Poultry for Profit.

The *Russian River Flag* gains from an interview with J. B. E. Young, of Healdsburg, some points of his experience which are interesting. Some time ago Mr. Young made some experiments in chicken-raising, and the result was that he made them pay him $6.50 per head each year, net. He says in order to be successful in chicken-raising the chickens must be kept in small lots, not more than 25 each, and that the roosting houses should be made so as to be moved every week or two, as the jiggers, lice and ticks soon infest the ground where they are; they must also be cleaned daily. The roosts should not touch the sides of the houses, but be built on a rack by themselves, and the roosting poles taken out and washed or whitewashed with salt and lime at least once a week. Neighbors who did not do this and who had large numbers of chickens were unsuccessful, and did not know why. The breed he kept was a cross between the Light and Dark Brahmas and Silver-Spangled Hamburg; preferred because they feather up quickly; when they are eight weeks old they often fetch the highest market price for grown chickens.

He had cholera amongst his chickens once, but cured it immediately by mixing cayenne pepper in their feed twice a week—fed with bran and shorts mixed, putting a teaspoonful in the wet feed to a dozen fowls.

The fowls were diseased in the head once with what is called the "swell-head." This was cured also with cayenne pepper. Both cases were caused by the fowls having been neglected. Cleanliness will prevent all diseases. At one time fowls were dying off by the hundreds all around his place, but he lost none.

After a hen brought out a brood, he greased under her wings, which killed the lice and prevented their getting on their young chickens. The nests were scalded and then filled with wild wormwood, which was an invariable insect exterminator.

He kept account of the products of one hen during the past season, which yielded three broods of chickens at $7.50, and two lots of eggs at $4.75, aggregating over $12. Four dollars of this invested in corn would bring 400 pounds, which would more than keep her for one year and raise the chickens. Therefore the net gain on a single hen was not less than $8.

Mr. Young gave particular attention to feeding, giving wheat and corn for hard feed, bran and shorts for soft and cabbages and onion tops for green feed, alternating daily. The wheat was often scalded and soaked. The bran is most excellent for laying hens. In addition to this he procured oyster shells, which, together with burnt bones, he orushed and fed; an abundance of ashes was always convenient for them to wallow in. The little chicks were given cornmeal.

CENTENNIAL POULTRY EXPOSITION.—The exhibition of the poultry will open on October 27th, and close on November 6th. The display will be made in coops provided by the Commission, and located under the shelter of the cattle stalls, which will be prepared for their reception. Transportation charges must all be paid in advance. Express companies will deliver specimens on the exhibition grounds, when addressed with official labels. Each coop used in the transportation of birds must be of sufficient strength to serve for their return, and must be marked with the proper shipping directions.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. WEBSTER; Secretary, AMOS ADAMS.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Annual Meeting of the Grangers' Bank of California.

The annual meeting of the stockholders of the Grangers' Bank of California for the election of Directors for the ensuing year, and also to amend the by-laws if found necessary, will be held at the office of the Bank on Tuesday, the 10th day of October, 1876, one o'clock P. M.

C. J. CRESSEY, Vice President,
No. 42 California street.

San Francisco, Sept. 11th, 1876.

COPIES OF THE CONSTITUTION AND BY-LAWS of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

P. OF H.—Subscribers who pay fully one year ($4) in advance for the PACIFIC RURAL PRESS can receive the CALIFORNIA PATRON *free*, or other premiums. See our premium list in another column.

Yuba City Grange.

EDITORS PRESS:—Last Saturday, having been the anniversary of this Grange, was duly celebrated by a harvest feast and a general reunion of its members. At an early hour the vanguard appeared on the scene, consisting of several of the sisters and our worthy Stewards, bearing a large collection of the most beautiful gems from the flower gardens, and a tempting variety of fruits. After a couple of hours' hard labor on the part of those zealous members, the hall presented a beautiful appearance. Flowers in endless variety artistically arranged in Lilliputian and mammoth bouquets decorated the several stands and filled the place with their fragrance. There is a peculiar charm in the grace and harmony of those festal decorations by which we understand intuitively that the refined taste and gentle hand of woman have planned and executed them.

The carpet was covered with snowy canvas, provided for such occasions, and toddling little Grangers found rare sport in rolling about like pumpkins, without any danger of hurting themselves or soiling those dainty little garments that must have caused some fingers to ache in making them, as no sewing machine could ever perform the various intricate devices for which my vocabulary of children's fashions never knew a name.

Along the center of the hall a table was arranged capable of accommodating 75 persons. About 11 o'clock the main column arrived, and, judging from the prodigious baskets of provisions, one would imagine they were starting on a pilgrimage to the shrine of Ceres. For some time after this arrival there ensued a clatter of china and glassware calculated to awaken serious apprehensions in the mind of a nervous housewife for the safety of her favorite treasures. All were unpacked without damage, however, and at 12 o'clock the sisters, who had undertaken the arduous task of spreading the feast, stepped back to take a bird's eye view of their work, and feeling satisfied that they could add nothing, either for comfort or adornment, they proclaimed the feast prepared—not prepared for the onslaughter, however, but for inspection.

A short time was granted for all present to feast their eyes before proceeding to devour the picture, and many a wistful glance and approving smile was directed towards the tempting array. Large vases of flowers decked the center of the table at regular intervals, while elevated baskets were piled up with choicest fruits of the season; the large bunches of luscious grapes hanging down in graceful profusion, their rich juice ready to burst forth at the slightest touch. It would be impossible for me to give any idea of the specimens of culinary art prepared by our worthy sisters, as there were several kinds on the table that I did not even know the name of, and one does not like to expose his ignorance, on such an occasion, by asking questions. The traditional fatted calf was not killed for the occasion, but several fat turkeys and plump chickens were slaughtered to welcome the prodigals, who were now doubly welcome for their long absence.

Worthy District Deputy, George Ohleyer being present,

Opened the Grange

In due form for the purpose of transacting important business, after which the doors were thrown open and invited guests admitted. A blessing being asked by the Chaplain, all that could find room sat down to dinner, and from the relish with which they partook one would imagine that some of them had sharpened their appetites on the grinding stone before leaving home. Wit, laughter and anecdote circulated freely and gave additional zest to the feast.

The wants of the inner man, and woman for that matter, being supplied, the hall was cleared and music introduced. Speech making was out of the question; all felt happy, and no one had any grievance to redress or measures of reform to advocate; they had met for purely social enjoyment.

Later in the afternoon the young people called for lively music—by the way, a great many became suddenly rejuvenated, and enjoyed themselves by treading the mazes of the lively dance until the slanting rays of the declining sun admonished the practical old folks that business at home must not be neglected for pleasure at the Grange.

Nothing Could Be

More appropriate at this season than a harvest feast, as a finale to the winding up of another year of plenty and prosperity. Such pleasant occasions as this stand out prominently in the history of our organization like landmarks by which we can measure our progress and improvement. Glancing retrospectively over the short history of our Grange, this being its third anniversary, we are fully impressed with its power for doing good. Laying aside all consideration of material benefit, and looking at it from a social standpoint, it has already done more for the farming class than the most sanguine of our members are aware of. Day by day we see that feeling of selfishness and distrust engendered by seclusion and years of hard toil spent in pursuit of the "almighty dollar," giving way to more generous impulses and an awakening interest in the general welfare. Congenial spirits meet in the Grange and form life-long friendships; some who are battling against adversity are cheered and encouraged by fraternal council to renewed exertion and final success.

But most of all it has benefited women on the farm. Being deprived of all opportunity to attend speeches, lectures or other means of obtaining useful information, associated with people who are often rendered morose and taciturn from overwork, with no library but the weekly locals, and they often *weakly* indeed, the Grange is a Godsend; for there she obtains practical knowledge calculated to enable her to depend on her own resources, should occasion require it, and well she expresses her gratitude to the institution by her prompt attendance and unceasing effort to promote its welfare.

M. F. H.

Yuba City, Sept. 11th.

The Wheat Meeting.

According to announcement, a meeting of wheat growers was held at Golden Gate Grange on Tuesday night. It was the sentiment of the meeting to publish no record of proceedings, and consequently we print nothing official. The gossip concerning the meeting, as found in the *Chronicle*, is as follows:

"Some of the largest grain raisers in the State were present. No business which can be made public was transacted, though there was a determination expressed among the members not to part with their wheat until the rate of freight is reduced. 'We have plenty of wheat, plenty of store-rooms and victuals enough to keep from starving,' said a farmer from Butte, who could almost load a ship alone, 'and if they want our wheat they can have it when they pay prices proportionate to Liverpool quotations. Otherwise we will let the weevil eat it.' The action of the ring in advancing the price of charters with every advance in Liverpool, instead of raising the price of grain here proportionately, is understood by these men, and while there are a large number of small farmers and renters who are compelled to sell for ready money, the receipts of wheat are no larger than during the same period last year, with a crop almost double. The representatives say that throughout the State the warehouses are full, while a great deal of wheat is banked along the rivers."

The *Call*, in noticing the meeting, says another meeting will be held at Vallejo, Sept, 30th. The Vallejo meeting is not a wheat meeting, but one held by the County Grange for the general good of the Order and a feast.

Patrons, Bear in Mind.

It is much desired that as many Granges as possible should be represented at the next session of the State Grange, beginning on Tuesday, Oct. 3d, in San Francisco. Fourth degree members of the Order are cordially invited to be present and assist in the labors of the Grange by their advice and experience. They have also the right, through their representatives, to present matters for consideration by the State Grange. Let us have "a new departure," less talk and more work, less theory and more practice, and above all, unity of action and good feeling throughout.

At our last State Grange there was some disappointment in consequence of Past Masters and their wives who are Matrons not being eligible to receive the fifth degree, Past Master Hamilton having ruled that under the National Grange Constitution, as it then stood, that they were not entitled to receive it; but the Constitution having been amended at the last session of the National Grange, so as to restore the former rights of Past Masters and their wives who are Matrons, and said amendment having been ratified by the requisite number of State Granges to make it the supreme law of the Order, I shall therefore, in accordance with the spirit of said amendment, rule that all Past Masters who have honorably served out the term of office for which they were elected, as Masters of California Subordinate Granges, are entitled to receive the fifth degree; also their wives who are Matrons, and said degree will, at our State Grange in October, be conferred on all who may apply and are entitled to it under this ruling.—*J. V. Webster, W. M.*

The Celebration at Martinez.

EDITORS PRESS:—We of Contra Costa have a record to make, and through the agency of our Directors of Grangers' wharf and warehouse, we make a most honorable entry in this Centennial year, in the name of Patrons of Husbandry, for the completion of a work which a few months since seemed so great an undertaking that its very mention called forth derisive smiles even from those who wished us God-speed!

Our weather god, who had been for the past week very fitful in his temper, gave us his brightest and most genial smiles this Saturday morning, September 2d, 1876, and as early as ten o'clock, Grangers and other friends from different parts of our county assembled in the Grangers' building. Up stairs in Grange workroom sat, we suppose, in solemn council worthy Directors, while below stairs sisters spread a feast of the good things which "Mother Hubbard did not find in her cupboard."

About noon, Grangers and friends moved in a body, joining the Contra Costa band and others in waiting, and among those patient ones we were pleased to meet Worthy State Master Webster, Brother Cressey, Brother and Sister Blanchar, Brother and Sister Merry and Brother Costigan and wife. Preceded by the band and our welcome visitors, Contra Costans marched from the warehouse over our thrown-up roadway and down our new wharf, at the foot of which was planted the Stars and Stripes, with a pedestal of sacks filled from Ceres' golden harvest; and in significance of that beauty that crowneth labor and lighteth the path of the weary toiler in his daily life, were the little girls dressed in white and crowned with the starry gems that fall from Flora's hand, supporting, as they stood on this cereal foundation, the "Flag of Our Country." Rev. Mr. Tuthill, of the Congregational church, gave a beautiful and most impressive prayer, thanking our most Worthy Master on high for our success, and most solemnly invoking His farther mercies upon this Granger brotherhood and upon all laborers in our field, and that Contra Costa Grangers might so live and labor as to be worthy of their Divine Master's hire.

Worthy Master Strentzel now mounted the farmer's forum, wheat sacks, and in accordance with the custom of ages in symbolizing any great and unusual event, in token of amity to all, and that thus might be scattered the "staff of life" to all men, showered the golden grain around us, and in the name of Patrons of Husbandry of Contra Costa, dedicated this, the Grangers' wharf and warehouse, to the commerce of our little world, thus welding another link in the great commercial chain that spans the known world.

Brother Blanchar paid a tribute to co-operation, that unity of action which demonstrates that "in union there is strength." Then followed the singing of "America" and "Star Spangled Banner." During these exercises the steam ferry boat, *Carquinez*, belonging to Shirley & Mizner, courteously waited with flying colors to take the whole party on a cruise around Carquinez straits, landing us at their wharf amid the hearty cheers of all.

Again we took the line of march to Alhambra Grange hall to do justice to the bountifully laid tables of Danville, Walnut Creek, Pacheco and Martinez. Here Pomona presided, scattering her wealth of fruits to the multitude, and when they had partaken of the meats and fruits of the land, and tables were being cleared for dancing, we adjourned up stairs to Grange hall proper, to listen to an eloquent and concise tribute to "Commerce and its Relations to Agriculture," from L. B. Mizner, of Solano. With a prophetic eye he scanned the future and dwelt upon the glories which may culminate and crown our straits from this initiatory movement, warning us to watchfulness by citing the likeness of our straits to those of Bosphorus, where once through energy and enterprise sat in commercial glory the Queen City, Constantinople, now sits in the fading glories of illustrious past. Another half hour was pleasantly and profitably spent listening to the Worthy State Master Webster and Brother Blanchar, when dancing received attention till Worthy Master Strentzel's gavel called Grangers to their work, and entertainment from Worthy Brothers Webster, Cressey, Blanchar and Costigan. Thus ended the second day of September, which crowned the united work of Danville, Walnut Creek, Pacheco and Alhambra Granges with the honors they deserve for the completion of their great co-operative work—the Grangers' wharf and warehouse of Martinez.

MRS. MARIA B. LANDER,
Secretary Alhambra Grange.

Sept. 4th, 1876.

THE CENTENNIAL FRUIT.—A dispatch from Philadelphia, September 10th, says: Two carloads of fruit from the State Grange of California have arrived at the exhibition, and are now being unpacked in the pomological building, east of agricultural hall. A quantity from Nebraska has also just arrived. The consignments include apples, pears, peaches, quinces, apricots, plums, nectarines and grapes. They are in excellent condition, and will form a feature in the display at the opening of this week, which will be the finest ever made in the United States.

THE GRANGERS' SHIP.—The British ship *Dryad*, the vessel chartered by the Grangers, has cleared for Liverpool with 36,836 centals of wheat, valued at $56,074.87.

Earnest Words From a Georgia Patron.

EDITORS PRESS:—I am a farmer, consequently a poor writer. I am a Granger, but I too often neglect my duties. I was one of the charter members of the first Grange organized in my county, and I have but two things to regret, and one is that I did not have a chance to join sooner, and the other is that I have not been a better member since I did join. But if apologies will suffice for the past I intend to be a Granger on purpose for the future; and I desire to say to the Patrons of the Golden State to stand shoulder to shoulder and move in solid columns on the enemy's works. I cannot do better than quote the following stirring words from a recent speech of John Jones, Worthy Master of the National Grange: "The Subordinate Granges are the life blood of our system and give to it all its power, moral and active.

"When one of these sources of life and power fail, however remote, the head and heart feel it. You may not realize at once or for a time in your own Grange the advantages you hope for, and which must come in time if you persevere. But bear in mind the good to our class and country which we have already accomplished. Remember also the greater benefits which we may secure, individually and collectively, by united and earnest action in our work, and our success will be assured.

Power and Superiority

Are the rightful attributes of our class, instead of weakness and dependence. Without agriculture there is no wealth. Gold and silver are not wealth. They are its convenient representatives. Commerce produces no wealth, it simply exchanges it. Manufactures and the arts combine it. Agriculture is the prolific mother of wealth. The rest simply handle it when produced and delivered into their hands.

"The earth breeds savages. Agriculture breeds horses, ships, temples and seminaries. It breeds manufacture; sculpture, painting and music are its offspring. The wheel of the workshop, the sails of commerce, the implements of science, the pen of genius, the pencil and chisel of the artist, the eloquent tongue of the orator, the planning brain of the statesman, the equipage of wealth, the banqueting of pleasure—in fact, all that renders earth in its tides of life anything but a great sepulcher, springs from agriculture.

"We move and have power of being because the fields yield their fruits to the toil of the husbandman. We might manage to live without lawyers. A great many would probably live that do not, without doctors. We might manage to live without merchants, without mariners, without manufacturers, without orators, without poets, and perhaps we might possibly survive the loss of demagogues, but sure I am we could not live without plowmen.

"The state of husbandry in any country is the best test of its enlightenment. The thermometer of civilization rises or falls as driven by the plow. 'You must send the plow,' exclaimed a man who had traveled all over Christian missionary ground in heathen lands. A barbarian nation needs but to be plowed deep, subsoiled, sowed and planted, and the inevitable harvest will be an enlightened empire."

W. V. FINDLEY.

Calhoun, Gordon county, Georgia.

Grangers' Bank of California.

We wish to remind the stockholders of this Grange corporation that their annual meeting for the election of directors and to receive the report of the business of the bank during the past year will take place in this city on Tuesday, October 10th. It is very important that all the stock should be represented either in the persons of the owners or by proxies. Come yourselves if you can; but if you cannot come then select some person in *your own* Grange to represent the stock owned by members of your Grange. Where this is not practicable send your proxy to the bank or to some one here in whom you have confidence and who will use it for the best interests of the bank. But anyway, be sure that your stock is represented at the next meeting of the Grangers' bank.

REUNION OF SOLANO GRANGES.—We acknowledge with thanks an invitation to attend the reunion of Solano county Granges, which will be held at Vallejo on Saturday, September 30th, at 10 A. M. We regret that we cannot promise to be present, but hope, none the less, that a goodly number of others will avail themselves of Vallejo Grange's invitation, because we are sure that the reunion will prove of much good and profit to all who attend and to the Order in the county. The Grange will spread a feast for the benefit of guests and the joys of generous hospitality may be expected. We hope and believe that the reunion will be a success in every way.

DECORATE.—At the last session, Sister Woodhams, of La Honda Grange, introduced and had passed a resolution directing that the hall of the State Grange be prepared for its purposes. Now, will the brothers assist us by bringing or sending sheaves of wheat or oats, fine stalks of corn, evergreens or anything else which they may deem an ornament to the hall. Now, don't every one think that somebody else will have enough, bring them yourself, and then we will be sure to have enough.

Agricultural Notes.

California.

ALPINE.

Heavy Crops.—*Chronicle*, Sept. 2: Our farmers have this year obtained large crops of hay—larger than nsual.

COLUSA.

Fire.—*Independent*, Sept. 9: On Sunday of this week a fire broke ont on Peter Dolan's ranch, and before it could be got under control it had burned through his stubble, destroying 75 or 100 acres of his fall feed and about a quarter of a mile of fence. From thence the fire spread to the ranch of David Wood, ran through his stubble, attacked his grain, and hurned between 400 and 500 sacks of harley, besides two stacks that had not yet been threshed. The fire burned through Mr. Wood's fence and got into the stock ranch of Lee Wakefield and burned a large qnantity of wood. The fences of Messrs. Wood and Wakefield both snffered to some extent, but we did not learn the full amount of damage to all parties. It is not known how the fire originated, but it was probably started through the negligence of some of the hands in dropping matches along the road leading from the stacks to the house.

CONTRA COSTA.

Dr. Strentzel's Orchard. — Cor. Visalia *Delta:* We came to Martinez to visit the ranch of Dr. Strentzel, who is a pioneer in orange culture. He has 80 acres in the choicest of fruits—oranges, lemons, pomegranates, cherries, prunes, plums, almonds, pears, psaches, quinces, apples and grapes. We saw oranges, lemons and pomegranates in all stages—from the blossom to ripe frnit on the same trees. The Doctor has the Osage orange growing thick and tall aronnd his ranch as a wind-break. His Centennial orange grove, of eight acres, set out this year, has blue gum planted around it as a wind-break. The proprietor gave us mnch valuable information on orange culture. We have space for some snggestions. They will need a protection of brush, old sacks, etc., for several years; shonld be made to branch at the gronnd, to protect the stand from the sun; have abundance of water; plant close, to shade the gronnd, say from 15 to 18 feet apart. Plants raised in the house never do any good in the open ground. Better plant the seed in open ground, water well and protect with brush, etc. He says the cold of our winter nights don't hurt oranges, it is the morning's sun. He also says they have to protect oranges from the winter's sun in Italy. He thinks Tulare county a fine orange country. We were interested in his conversation. His fruit was delicious, oranges never better, his wife a charming lady and his danghter a fine colloquist and floral culturist.

INYO.

Light Grain Yield.—*Independent*, Aug 26: We are told that the yield of small grain in this portion of the valley, and probably all through it, has disappointed expectations very mnch, the yield being scarce half as large as was anticipated before threshing. The light turnout is attributed in good part to the fact that the fields became weedy beyond precedent this year. In part compensation, though, the corn and hay crops are better than common.

KERN.

Lion Poisoning.—*Californian*, Sept. 7: Mr. Howlett, just returned from his camp in the Tejon mountains, reports the killing by poison of a California lion that measured five feet three inches in length, not including the tail; with the tail he measured no less than eight feet. He broke into a sheep fold one night and killed a number of sheep. One of the sheep was poisoned with strychnine and left in the fold the next night. In the morning the lion and the lamb lay down together, both stretched in the rigid embrace of death.

LOS ANGELES.

Crops in San Fernando Valley.—Editors Press: The crops in this valley are good. I never saw better wheat raised anywhere. There is no rust nor smut and the heads are well filled. I had 2,000 acres in but have not threshed yet. Mr. Van Nuys has in 4,000 acres and gained 32,000 sks. of wheat; 10,000 of barley. He has 300 acres of wheat more to thresh.—A. Workman, San Fernando, Cal.

MARIPOSA.

Acorns Abundant.—*Gazette*, Sept. 2: We have been assured by residents from every section of the county that the crop of acorns was never more abundant; the ground in the oak regions—and that comprehends nearly the entire county—are literally covered with them. This is good news for stock men, particularly those who are in the hog business. Not only swine but cattle feed on acorns, and in the absence of anything else will snbsist on them. Nature will be partial in the bestowal of her favors, and as she has tnrned a cold shoulder to our Merced neighbors, we invite them to winter their hogs in onr county. We feed their sheep, but we have and to spare, and are not niggardly.

MERCED.

An Industrious Family.—*Valley Argus*, Sept. 9: We have received at the hands of L. R. Fancher, Esq., a nnmber of stalks of Chinese sugar cane and broom corn, respectively 12 and 14 feet in length, raised upon the farm of Samnel Deardorff, in the Mussel slough settlement, Tulare connty. Mr. F. informs ns that the specimens brought us are about the average growth of the corn and cane in the field, and that he saw in the same field a cucumber which measured 41 inches in length; Indian corn grows finely and yields well; and that pumpkins, sqnashes, melons etc., are more abundant upon the ground than he ever saw before. Mr. Deardorff has in cultivation a number of acres of corn which was planted 'and cultivated by his two daughters, aged respectively 12 and 14 years, who managed the six-horse team, plowing the ground, planting and cultivating the crop, while the male portion of the family were engaged in attending the sheep, ditching and doing the other rough work about the farm and sheep camp. The young ladies are said to be quite accomplished, and after performing their day's work in the field, taking care of their teams, milking the cows and doing the other farm house chores, they entertain visitors in the parlor most charmingly, one of them being an excellent performer upon the organ.

Mariposa Island.—*Express*, Sept. 9: The principal interests of this island are the dairy business and stock raising. The island is principaily owned by W. C. Turner, J. K. Mears, W. S. Chapman and others, who are amassing princely fortunes by their stock and dairy business.

Grain.—Cressey Station Cor.: Having our grain now threshed, we can form a more correct estimate of the yield. Neither our own nor that of our neighbors turns out as well as we expected We looked for 10,000 hushels but it measures 600 bushels short. On the West Side the falling off is greater. Average the State over and there will not be more than two-thirds as mnch as was expected and calculated on by grain dealers. L. H. Ryland, of San Lorenzo, Alameda county, threshed out grain. He threshed 90,000 bushels in 69 days, in this neighborhood and on Bear creek.

MONTEREY.

Fires.—*Index*, Sept. 9: Another fire caused hy a steam thresher occurred on John O'Toole's place, near Gonzales, about noon yesterday. The hands engaged in running the thresher were partaking of their dinner, and Mr. James Beatty, a well known farmer, remained on watch outside. The fire started underneath the engine and it appears that Mr. Beatty crawled under to extinguish it, as he was found there shortly afterwards in an unconscious state, with the skin entirely burned off his face and his clothes on fire. It was supposed at the time that he could not long survive; but Dr. Trimmer entertains strong hopes of his recovery. A header wagon, derrick, separator and one setting of wheat were destroyed, the total loss being estimated at $1,500. A fire originating from a steam thresher destroyed some 500 sacks of wheat for Mr. Jansen, about two miles southeast of Salinas City, last Friday afternoon. A large number of persons went from here and prevented the further spread of the conflagration.

Moss Landing.—The warehouses at this place have an aggregate capacity of 20,000 tons, and it is expected that they will be filled to overflowing with wheat. Most of the wheat going there at present is placed on storage, which shows that farmers are unwilling to sell at present prices, preferring rather to store their grain and take chances on a raise.

NAPA.

Fruit Ranch.—Correspondence Visalia *Delta.* We are stopping on the fine frnit ranch of Wm. Thompson & Son, near Suscol, Napa county. The elder Thompson is a hearty, hale old gentleman who, having given the management of the ranch to his son, is leisurely enjoying the fruits of his labor. The cardinal principles npon which the father and son manage are: a diversity of crops, let nothing go to waste, and cultivate the best and do it well. Grain, fruit and stock are the chief products of the farm. Grapes, except the best varieties for raisins, are not cultivated; nor do we find small fruits to any extent. Perhaps the 10 acres in asparagus, grown in its season, yields the largest profit per acre of any one thing raised on their ranch. The grain crop is only an incidental item, to supply food for their stock, the surplus being sold only to help meet current expenses. Here I saw the profitable application of the principle, "let nothing he wasted." After the grain was harvested the fields were thoroughly gone over with rakes and all the loose straw and heads gathered and pnt away for winter feed for sheep and young stock. With this they fatten their mutton, which commands the highest market price in San Francisco. Mr. Thompson says the raking of their fields is very profitable labor. But that which interested us most was the 200 acres in fruit trees, and their surroundings. Broad avenues are laid out in every direction, and these are lined on either side with sugar or rock maple, soft maple, elms, mnlberry, the cypress of the Southern States, magnolias, hickory, pecan, and walnut trees, and buckeyes of the Eastern States, English walnuts, olives and evergreens of the Pacific coast, whose branches cover and shade these drives. Behind these trees are the orchards and grain fields. The orchards are not in one continuous field, but are interspersed with grain and pasture fields, thus making a pleasing variety as one drives over the avenues.

Wine Making.—*Register*, Sept. 9: Mr. Van Bever intends to commence wine making next week, if there is not too much rain to delay the maturity of the grapes. He informs ns that he has already made contracts for a sufficient quantity of grapes to produce from 60,000 to 75,000 gallons of wine, as he anticipates doing a larger business this year than last, when he made abont 50,000 gallons. Most of the grapes which he has purchased are of the foreign varieties, and the prices average about $15 a ton. For Mission grapes he is offering from $8 to $10 a ton, bnt growers are not disposed to sell at present at these prices. Mr. Migliavacca intends to commence wine making about the 20th of the month, He has disposed of his stock, and will probably fill all his casks, making some 60,000 or 75,000 gallons. He has engaged some grapes—one lot of 50 tons at $20 per ton.

A Great Farmer.—*Reporter*, Sept. 9: Mr. John Finnell, of our county, is one of the greatest farmers in the world. He has in 17,000 acres of wheat this season in Colusa county, which will yield about 185,000 sacks of 140 pounds each. He has purchased this year, to glean his fields, 3,000 head of killing hogs, 4,000 wethers and 800 head of bullocks. These will all he sold off to the butchers before plowing time. One hundred and sixty gang plows, six horses each, are employed on his place, and headers, wagons and threshers in proportion. His expenditures in cash this season from the time of commencement of operations to the end of harvest, was $150,000 in coin. He has sold 8,000 tons of wheat at $1.55 at Vallejo, and has oceans of it left.

SACRAMENTO.

The Coming State Fair. — *Record-Union*, Sept. 5: A review of the entire situation to-day gives ample ground for anticipating a deeply interesting exhibit of production and trade at the approaching State fair. On every hand the note of preparation is sounding loud. The applications for space for exhibits come in daily and hourly, and with unequaled rapidity, from every section of the State, showing a very lively interest on the part of growers, producers, artisans, tradesmen, factors and others to be represented at this annual exhibit of the commonwealth. A number of the Directors live in places remote from the offices and grounds of the society, but are promptly on hand at the necessary meetings to perfect all needed arrangements for the exhibition, and they find their hands full. So far as the pavilion is concerned, the present state of the books show that variety will mark the display there, and that it will mostly be of a very practical and suggestive character. At the park there is now assurance that the stock exhibit will exceed that of any previous year. Notwithstanding the fact that the accommodations at the park have been greatly enlarged, the stalls are about filled and the pens and boxes filling rapidly, and already Superintendent Cox is busily engaged in providing room to meet demands which advices assure him he must expect. One noticeable feature is the large quantity of young stock coming in and announced to arrive, the growth of California stock raisers and horse fanciers.

In the Grain Trade.—The grain-carrying from the upper Sacramento is being conducted briskly by steamers and barges. The steamer *Harriet* and tug *Jennie Garon*, of Stockton, together with four barges, have come over from the San Joaquin to participate in the work, the former running up the river as far as Butte City, and, on her return, connecting with the tug at Haycock shoals, thus being able to make two trips per week, with two barges each trip. Steamboat men say that the upper Sacramento has plenty of water this season, and that in fact the only very bad place on the river is Haycock shoals.

SANTA BARBARA.

Ranch Rending.—Lompoc *Record*, Sept. 2: There is a prospect that the proprietors of the Purisima and Santa Rita ranches, adjoining Lompoc on the east, will offer some 3,000 or 4,000 acres of choice valley land for sale this fall in time for operations the coming winter. This soil is equal to much of the best in Lompoc valley; it is, in fact, but an extension of the valley proper.

Late Planting.—Dr. A. F. Childs is now planting potatoes of the Early Rose variety. The soil is amply moist, and the Doctor is confident of an average yield. The Doctor is experimenting in various ways. He is the first and only person who is applying plaster to his crops; the results we will give hereafter.

Good Corn.—Mr. Cook, residing just outside of town, has brought in some tall corn. It is eight feet and one inch to the first ear, and the stalk measured has three perfect sets of ears. One stalk is over 13 feet high, and another measured six inches in circumference. It has been doubted whether we could raise good corn in Lompoo valley, in consequence of the prevailing fogs; but last year's experiments dispelled every doubt. The corn produced by Mr. E. H. Arne, planted late in May, matured and yielded hetween 80 and 100 bushels per acre. There are many finer looking fields in the valley this season. September and October are the ripening months; then the fogs in a great measure subside, and the corn ceases to grow and quickly matnres. The lightest soil in our valley, that bordering on the river, is producing this season most promising corn.

SAN DIEGO.

Honey for the East.—Los Angeles *Herald*, Sept. 9: We had the pleasure of a call from Prof. J. S. Harbison, of San Diego, who is on his way East with 10 car-loads of honey, which he is shipping to different points. Prof. Harbison stands among the most prominent apiculturists in the world.

SAN JOAQUIN.

Grading Wheat.—Stockton *Independent*, Sept. 9: In the matter of prices we think the farmers of California would derive much advantage from grading their wheat. The best quality of California wheat, thoroughly cleaned and free from unsound or damaged grain, will bring a much higher price in foreign markets than any other wheat in the world, for the very good reason that it is worth more; but where it is in the least degree foul or intermixed with damaged or unsound grain, the snspicion of inferiority at once attaches and buyers refuse to pay the best price, or what it may actually be worth. We think we are safe in saying that the farmers of this State have annually suffered great loss through their own neglect in cleaning their wheat in the best possible manner, and grading it so as to warrant them in demanding and enable them to obtain its actual value in the market.

Egg Shell Almonds.—Where the choicest of almonds grow so readily as they do in Californiait is st range that their cultivation is not more generally entered into. A handful of the largest egg shell almonds that we ever saw was given us yesterday. They were grown on the ranch of D. C. Deady, living five miles west of Woodbridge and 16 miles north of this city. The trees have been bearing but three years, and were last year nearly killed by frost, the entire fruit with which they were laden having been blighted. This year they received their strength and have borne a crop of monstrous almonds that dwarf the little imported trash when placed in contrast with them.

SONOMA.

Grape Growers' Incorporation. — Friday, September 1st, there were filed in the office of the Secretary of State articles of incorporation of the United Vineyard Proprietors company, for the manufacture of wine, brandies, etc., and otherwise utilizing grapes. Place of business: Healdsburg. Directors—D. D. Phillips, J. M. Whitlock, W. C. Ellis, John L. Rogers and John Chamboard. Capital stock, $100,000, divided into 4,000 shares of $25 each.

TULARE.

Castor Beans.—*Delta*, Sept. 7: Mr. Knawyer, of Grangeville, sends us a sample stalk of the castor bean raised on his place this season. It is a shoot three feet in length and densely studded with the beans, which vary in size and color from the other varieties which we have seen growing in different parts of this county. It is also a smaller plant, but probably a greater bearer than any of them. The seed was obtained from the castor oil works of San Francisco, who recommended it as the best variety for cultivation. Mr. Knawyer will have about three tons, for which he expects to get two and a half cents per pound in San Francisco, though the oil company held out the inducement that it would pay three and a half cents. The harvesting, sacking and transportation to the railroad, it is estimated will cost about a cent a pound. There is no special rate of freight for this class of merchandise, and if the usual rate of one cent per pound is cuarged, the cartage and storage will leave little or nothing to the producer. The beans are gathered when ripe and laid out to dry, when the burrs hurst open, the beans being thrown sometimes to a distance of 20 or 30 feet, unsaleable beans being left in the pods, which remain closed.

VENTURA.

A New-Drier.—*Free Press*, Sept. 9: L. D. Chillson has invented a new kind of fruit drier, which he says works admirably. He is drying from 40 to 50 pounds of peaches, apples and raisins with it per day, and will dry about 2,000 pounds of fruit this season.

YOLO.

Wool.—*Mail*, Sept. 7: There are not over 20 men in Yolo county who pretend to make wool growing a business, and yet we find that the revenue derived yearly from this branch of industry amounts to over $100,000. It is worth while to engage in such a business, particularly with those who own lands adjacent to the foothills and mountains where ranges for pasture can be had at little cost. There is no doubt but that it can be overdone—just the same as wheat raising. But there is no questioning the fact that every sheep pays for itself in one year, rating them at the price which they now command in the market. We understand that one man, Mr. Gallup, a resident of Sacramento, owns in Yolo county between 16,000 and 20,000 head of sheep. While he is, perhaps, the largest owner, there are others who have 3,000 to 10,000 head each. The imported stock is held by a few, among whom we may mention Chas. Coil, S. P. Pond, R. B. Blowers and Geo. M. Scott. There are also some fine imported sheep owned in Buckeye township. When it becomes general for alfalfa to be grown on the farms in Yolo county, we may expect to see larger herds of sheep and a better quality in general than we now have.

Rapid Growth.—*Democrat*, Sept. 7: Mr. W. G. Edgar has shown us a potato of the Peerless variety, grown near the sink of Cache creek from seed planted on the 10th of July—a month and 25 days before digging—which weighs 10 ounces. The land is extremely rich and produces very abundantly.

Nevada.

Frost.—White Pine *News*, Aug. 26: We are informed that the extraordinary cold weather which prevailed in this locality a few nights since, played sad havoc with a number of potato crops and garden truck generally, and in some cases ruined entire crops. There were two nights that ice froze from a half to three-quarters of an inch in thickness, which is tolerably cold weather for the latter part of August.



How Blind Men Are.

[By GEORGE G. W. MORGAN.]

How blind men are who think that when
They die life has no more to give:
My friends, I am convinced that then
They really just commence to live.

Let this small thought a fact supply,
To some it may great comfort give;
We know full well the egg must die
So that the embryo bird may live.

Say, does the worm upon the ground
Know aught but where by chance he lies,
Or comprehend what those have found
Who've donned the guise of butterflies?

The chrysalis perforce must shed
Its shell to be a butterfly,
And seem to neighbor worms quite dead;
But we know well it does not die.

And so to me 'tis very plain
That this frail human shell of ours
Must be cast off ere we can gain
An entrance to Elysian bowers.

That Box.

[Written for the PRESS by JENNIE E. JAMESON.]

"You may say what you please, but it's a fact that she was allers dreadful nigh, ez snug ez the bark to a tree, was Aunt Polly; an' who knows but"—and Miss Sarah Splicer gave a significant nod and a knowing look toward a plain, strong box, sitting at the foot of a bed in the corner of the room. Upon the bed lay a woman who evidently had but a few hours to live; but still they talked on.

"Just to think!" continued Miss Splicer, "an' she pretendin' to be so poor! Yes, and pious, too! Many's the time when she's set the table, an' not a victual to put on it—then, when somebody brought her somethin' to eat, she would be jest ez thankful, an' say she knew the dear Lord sent 'em, fur the promise was—'The Lord will provide,' and she knew He wouldn't let her starve. The old hypocrite!" and Miss Splicer tapped her snuff-box spitefully and secretly congratulated herself that none of *her* victuals had ever been wasted on such an unworthy person.

"Ah, well, now, Miss Splicer, you may be too hard on her," said Mrs. Jones, in more gentle tones. "Are you perfectly sure that the box contains money?"

"W-h-y, y-e-s; Tom Mercer says he hasn't a doubt of it. You know he's second cousin to her, and bein's there's no nearer relations, he'll come in fur a share; an' you know her husband was my third cousin, an' I shouldn't wonder—but 'tisn't I that would be after breakin' into it. I think that's jest what Tom's after; but I'm goin' to keep watch of 'im. He shan't rob the poor widder if I can help it. That's a pretty good sized box. I shouldn't wonder if there was quite a lot in it. It's heavy, too; I hefted it on the sly. There's silver in it, jest as like's not. She's probably been collectin' it fur years; 'twouldn't be strange. There's lots of such folks. There's a man in New York this minute that lives on crusts an' dresses in rags, but he's one of the richest men in the city. I dispise anybody that will live so, but if they will, I believe in havin' them that needs the money get it."

At this moment a groan from the sick woman called Miss Splicer away, and Mrs. Jones' attention was drawn to a conversation between Tom Mercer and a neighbor, as they stood just outside the window.

"I mean to look out for that Miss Splicer," said Tom. "She's a sly old rat. If the box hadn't been fastened up so strong she'd have had it opened and made off with the money before this time; but Aunt Polly's my cousin, and I'll protect her and her'n as long as she lives."

It was very fortunate for good old Aunt Polly that failing sight and hearing prevented her from knowing what was going on about her. She knew her hours were numbered, and was very thankful for the kindness of her neighbors, though surprised that she should receive any attention from Miss Splicer, who had never been very friendly, even if she was her third cousin. Just as the sun was setting, she asked Mrs. Jones to sing the hymn commencing—

"I know I am nearing the holy ranks,
Of friends and kindred dear,
For I brush the dews on Jordan's banks,
The crossing must be near.

Before the close of the chorus, Aunt Polly had left this world of care, and was free from all trials and poverty. She died as she had lived, firmly trusting in Him who is "mighty to save."

About an hour after her death, Mrs. Jones heard Tom Mercer say to the curious neighbors, among whom the news of the box so heavy and so securely fastened, so sure to be full of money, had spread like wildfire. "I've been to lawyer Hobbs, and he says we can't open the box or do a thing about it until we put it all in a lawyer's hands, and have things 'teuded to, 'cordin' to law. I say it's meaner than anything! The old rat jest want's a big fee, that's all. He says he wouldn't wonder a bit if there was a cool thousand or two in that same box; but we'll know before a great while. I'm the nighest relative, and I think I shall get a new suit of clothes to wear to the funeral. I'm sorry for her. She was a good woman—was Aunt Polly;" and Tom drew his ragged coat sleeve across his eyes, though Mrs. Jones thought she detected the ghost of a smile around his mouth.

At last the funeral was over. Tom had made a very respectable appearance in a fine, new suit, which he could in no wise afford, but had had charged in view of the "cool thousand or two" to be forthcoming from that mysterious box. All preliminaries having been arranged according to law, Tom the second cousin, Miss Splicer the third cousin, and other impatient relatives (?) (the number had grown so numerous that Mrs. Jones thought some of them must claim relationship because their father exchanged knives with Aunt Polly's father) assembled in lawyer Hobbs' office to witness the opening of the wonderful box.

With great ceremony the lawyer removed the cover. All crowded around to see the contents. Nothing was to be seen, however, but smooth, brown papers, and a half sheet of note paper folded, and laid above the other. This proved to be a note, which Mr. Hobbs unfolded, and read carefully, guarding the box in the meantime. The note was dated a few days after Aunt Polly had been taken sick, and contained these words: "I am sorry I have been delayed about sending this, as I know you will consider it quite valuable; but neighbor Rollins was intending to visit near you to-day, so I have waited to send it by him.—M. S. TENNE."

The eager faces around the box wore a puzzled expression. Tom Mercer held his breath and laid his hand upon his new coat, in the region of his heart. The brown paper was removed, disclosing *a fine lot of stirred maple sugar!*

As I write these lines that box still exists not half a mile away; but whether that large circle of relatives have eaten the sugar, or whether Tom Mercer has taken it to help pay for his new suit deponent saith not.

MOTHER AND DAUGHTER.—Winter, with its long evenings, is coming on apace. Soon the leaves will scatter with the autumn winds, the rustle give way to the sighs and moans; and it all means that years are passing and adding their histories to those that are gone. It seems a long time since you were a child, playing by your mother's knee; and yet, as you think of the time when he who in childhood had been your playfellow, and in boyhood fond of you, came and told you of his love and asked you to be his wife, just as you wished he would, it seems but yesterday. But follow the years. As a seal to that love that had budded in childhood and had ripened into "husband and wife," came the little stranger that you have watched with such tender care that she has grown into your hearts and become a part of your being. You think of her only as a child, never as a woman; and when that young man comes, and you cannot fail to see how she would leave all and cleave only to him, you are jealous of her love; and you quietly steal into another room to cry. It is the trial of your life; and though you know what the end will be, a shadow of hope is cherished that it will not come. You return to the room to find he has gone, but you read in her face the story; and as she comes and lays her head on your shoulder, toying with your frosted locks, and timidly tells you he asked her to share his lot and be his wife, you can only answer with a kiss and keep silence. Much as you love her, you would not as a true mother have it otherwise, as you only have her in trust. With earnest advice and a mother's prayer you bid her go.

INFANT MILLIONAIRES.—A New York paper of a late date says: The simultaneous death of Mr. and Mrs. W. T. Garner leaves three little orphan girls to the tender mercies of their guardians. These children are aged respectively eight, five and three, and are undoubtedly the richest children of tender age in the world. They are estimated to be worth $2,000,000 each, and if their property is judiciously managed they will at their majority be worth greater fortunes still. There is a child at present in a boarding-house, with her guardian, at Saratoga, who is the sole heir to a fortune of $1,500,000. She is the only granddaughter of a millionaire. Her mother was also an only child, and inherited the whole of her father's estate. The child's father was debarred by her guardian from handling any portion of the income belonging to this child, but was allowed an income, so that he could travel in Europe and gratify his dissipated habits without influencing his child. Among the child-portraits at Mora's, on Broadway, is that of a boy, whose yearly income, now paid to his guardian, is nearly $60,000. His guardian is a bank president, a man of the strictest integrity, who predicts that when this boy (now 10 years old) arrives at his majority his income will be at least $100,000 per annum.

Training Children.

How many a mother with her babe in her arms, looking forward to his possible, and, in her fond eyes, his probable future greatness, fails to realize that to her is largely given the work of laying the foundations of his success or failure in life. She is naturally solicitous that all his physical wants shall be amply supplied, but it seems a long time, looking forward, before he will be a man with the "heart and the hopes of a man." Yet, if when he has reached maturity she would still hold in his highest affections a mother's place, she must not forget the future man in the present babe; she will not only see to it that he is fed and clothed and cradled properly so that his physical growth and development shall be the best possible attainable by him, but she will in his moral, in his intellectual, in his social nature, lay broad and deep the foundations of a noble manhood.

The first work will naturally be forming in him the habit of prompt and implicit obedience to her will, which habit will be the foundation of obedience to all law, human and divine—of the law written in his members, on the statue book, or on the tables of stone. The next work, in a moral point of view, will be to insist upon perfect truthfulness, and never for a moment to look upon falsehood in her child as a venial fault. Alive to the importance of inculcating this principle of perfect veracity in her child, she will always treat him with perfect truthfulness, never deceive him, never betray his confidence. Reverence for the name of the Deity, for His worship, for the Sabbath, will be the next lesson inculcated, and will be the root whence reverence for all things, high and pure, must spring. For all social relations the Golden Rule is an infallible guide, and where the child has learned to be governed by this in his intercourse with his parents, with his brothers and sisters, with his playmates, he may be trusted to make his way in society.

From its parents the child should learn a proper self-respect and self-appreciation. It is a vital mistake made by many parents, that of bringing up a child with a slight estimate of his capabilities, his importance, his talents. If he has the gift of beauty, from no lips can he so safely learn it as from the parental lips; if he has rare powers of intellect, he should find in his own home their most thoughtful appreciation, and for his moral actions no words of approval should be so sweet to him as those his father and his mother speak.—*N. Y. Tribune.*

A DOG DYING OF GRIEF.—The *Forest and Stream* some months ago gave the following story of a dog's love for its master: About two weeks ago a man named Parcels, a blacksmith, residing near Dobbs' Ferry, went hunting "coons" at midnight. His companions consisted of a neighbor, residing close by, and a faithful dog. While searching for game at Sneeden's landing, on the Hudson river, Parcels approached the brink of the Palisades, and by some mishap lost his balance and fell down a distance of 30 feet. His friend having missed him, sought him, and by diligent search found him lying where he had fallen, and his faithful dog by his side moaning piteously. On attempting to approach the body the usually friendly animal strongly protested by growls and threatening attitudes. The man, seeing that his companion was seriously injured, went for aid, and in a short time returned with a surgeon and some friends; but the dog, which lay with its head across the body, refused to let them touch the treasure it so faithfully guarded. They were at length compelled to drive him away by blows. An examination proved that the man was dead, so the remains were placed in a boat and a piece of canvas thrown over them. The dog jumped into the boat also, and placed his head across his master's face, and remained there until the landing. The body was then placed in a wagon and conveyed home; but no sooner had it been covered than the loving friend again sought his old post. After the burial the dog became more depressed, refused its food, and wandered listlessly about, moaning in a low, nervous tone, and heedless of everything. He would pay no attention to any of the inmates of the house, and all their efforts could not cause him to manifest any signs of recognition. After dragging along for a week, caring neither for food or water, the faithful dog died—a martyr to love for his master.

HOME COURTESIES.—A writer in *Harper's Bazar* makes some excellent remarks concerning courtesy at home. Please listen, good people of the home circle: The placing of the armchair in a warm place for mamma, running for a footstool for auntie, hunting up papa's spectacles, and scores of little loving deeds, show unsuppressed and loving hearts. But if mamma never returns a smiling "Thank you, dear," if papa's "Just what I was wanting, Susie," does not indicate that the little attention is appreciated, the children soon drop the habit. Little people are imitative creatures, and quickly catch the spirit surrounding them. So, if when the mother's spool of cotton rolls from her lap, the father stoops to pick it up, bright eyes will see the act, and quick minds make a note of it. By example, a thousand times more quickly than by precept, children can be taught to speak kindly to each other, to acknowledge favors, to be gentle and unselfish, to be thoughtful and considerate of the comforts of the family. The boys, with inward pride of their father's courteous demeanor, will be chivalrous and helpful to their young sisters; the girls, imitating the mother, will be gentle and patient, even when big brothers are noisy and heedless. In the home where true courtesy prevails, it seems to meet you on the very threshold. You feel the kindly welcome on entering. No rude eyes scan your dress. No angry voices are heard up stairs. No sullen children are sent from the room. A delightful atmosphere pervades the house—unmistakable, yet indescribable.

Watching the Rose Bush.

Over the ruins of a house which was half burned, on a dreary, unpaved street in the eastern part of the city, a rose bush is slowly climbing. It is so small yet that the passer who glances at the blackened beams and rafters would not notice it, but for months it had no one to cut away the rank grass, give it water, and help it in its struggles to hide the sad work of fire. One day a little lame girl discovered the stunted bush, and her eyes filled with joy. A father buried beyond the sea—a mother in Elmwood—she lived in a cottage near the rose bush with a queer old couple whose hearts felt kindly toward the orphan, but who saw nothing in the rose bush beyond what they might have seen in a weed.

It was early springtime when the child found the bush, and she carried it rich earth, lifted the poor twigs with tender hands, and talked to it as if it were a playmate. Rough boys soon discovered why she visited the ruin, and at first they were a mind to pull up the bush to see her weep over their work. They remembered that she was lame, and they went in and helped her move the blackened timbers. Day by day the lame girl watched the bush. When the wind moaned loudly she trembled for fear it would injure the bush, and when the raindrops fell she hoped they would not strike the leaves too harshly. No watcher was ever more vigilant, faithful and patient. She told no one her plans.

One morning a week ago she found a bud. Every day, for days and days, she had peered among the leaves to see if a bud was forming; each day she had been disapointed, and a less brave and hopeful heart would have despaired. She smiled with joy when she found the bud, and she nestled in the grass beside the bush and watched it. The bud grew and swelled, and by and by it opened a bit, and the lame girl's heart sang a joyful song. Yesterday morning, when she hurried down to see the rose bush, the bud had blossomed, and a deep red rose smiled at her.

There was but one bud—only one rose—it was nature's reward for the child's patient care and long watching. She carefully plucked it, and that morning people driving in Elmwood saw a lame child tenderly drop a deep red rose on a "poor folks" grave. No other ornament—no other flower. It sank among the green grass and sparkled and shone like a star of night, and when the tears of the child fell upon it its luster was that of a diamond. For days and weeks and months she had tended the rose-bud and watched over it to secure a flower for the grave without a mark or name—a grave so like the thousand others that only love could have told the child that a mother's heart was moldering there.—*Detroit Press.*

Don't Be Afraid of Work.

A sarcastic young lady writes: Don't be afraid to work! It was never known to inflict any permanent injury upon anybody. To be sure, if you hide away or run from it, you'll have to stand it right smart when it does come up with you; but just join hands with work, and it is one of the best companions a body can have. It will set your blood in good running order, fix your appetite all right, digest your food in good shape, without a bit of doctor stuff; it will give you clearness of complexion, and tint your cheeks with a color which will not be injurious, nor rub off. Give me the girl or boy who loves to work. God will never forsake such a one. It is no excuse that one is able to hire servants. Nature requires the rich to work as well as poor, and, if we disregard her voice, she is pretty sure to speak so that we shall be glad to answer. It is just like this: The rich may work or not, just as they please, and the poor may work or starve, just as they please; but, if the rich won't work, they needn't whine in my hearing about their poor health, for, just as likely as not, I should tell them that they had got too much dinner on, and advise a warm dish-water bath for the hands, or a little pot-and-kettle exercise for the joints, or a broom sweat, a real "duster." Work is our best friend. It brings food to the hungry and health to the rich, although they will not believe it. Strange that women will prefer to be annoyed by faithless servants, and shut their eyes to their wasteful and sometimes dirty habits. Strange, I say, that a woman will prefer this to a healthy exercise of her own strength. I wonder if you think God made you for the express purpose of carrying about dry goods, and illustrating fashion's caprices? If you do, you are very much mistaken. I'll own up to any quantity of female folly and fashionable sin, but as heaven hears me, I'm not guilty of laziness, and I rely on that to cover a multitude of sins. I admire industrious folks. I adore them, and what is more, I love them.—*Ex.*

"WHAT becomes of all the sky-rocket sticks that don't come down?" "Why, that's easily answered; they're used in heaven to make matches of." Too many sky-rocket matches have been made in this State.

Prof. Huxley's Views of America.

As is generally known, perhaps, Prof. T. H. Huxley, the famons Englishman of science, is making a flying visit to this country. He was present at the recent meeting of the American Association for the advancement of science and made a brief speech showing his kindly appreciation of our country and our people. He said:

Sinoe my arrival in this conntry, I have learned a great many things, more, I think, than ever before in an equal space of time in my life. In England, we have always taken a lively interest in America; but I think no Englishman who has not had the good fortnne to visit America has any real conception of the activity of the population, the enormous distances which separate the great centers; and least of all do Englishmen understand how identical is the great basis of character on both sides of the Atlantic. An Englishman with whom I have been talking since my arrival says: "I cannot find that I am abroad." The great features of your oountry are all such as I am familiar with in parts of England and Scotland. Your beautiful Hudson reminds me of a Scotch lake. The marks of glaciation in your hills remind me of those in Scottish highlands.

I had heard of the degeneration of your stock from the English type. I have not perceived it. Some years ago one of your most distinguished men of letters, equally loved and admired in England and America, expressed an opinion which touched English feeling somewhat keenly—that there was a difference between your women and ours after reaching a certain age. He said our English women were "beefy." That is his word, not mine. Well, I have stndied the aspect of the people that I have met here in steamboats and railway carriages, and I meet with just the same faces, the main difference as to the men being in the way of shaving. Though I should be sorry to nse the word which Hawthorne did, yet, in respect to stature for fine portly women, I think the average here fully as great as on the other side. Some people talk of the injurious influence of climate. I have seen no trace of the "North American type." You have among you the virtue which is most notable among savages, that of hospitality. You take us to a bountiful dinner, and are not quite satisfied unless we take away with us the plates and spoons. Another feature has impressed itself upon me. I have visited some of your great universities and meet men as well known in the old world as in the new. I find certain differences here. The English universities are the product of Government, yours of private, munificence. That among us is almost unknown. The general notion of an Englishman when he gets rich is to found an estate and benefit his family. The general notion of an American when fortunate is to do something for the good of the people and from which benefits shall continue to flow. The latter is the nobler ambition.

It is popnlarly said abroad that yon have no antiquities in America. If you talk about the trumpery of three or four thousand years of history, it is true. But, in the large sense, as referring to time before man made his momentary appearance, America is the place to study the antiquities of the globe. The reality of the enormons amount of material here has far surpassed my anticipation. I have stndied the collection gathered by Professor Marsh, at New Haven. There is none like it in Enrope, not only in extent of time covered, but by reason of its bearing on the problem of evolution; whereas before this collection was made, evolution was a matter of speculative reasoning, it is now a matter of fact and history, as much as the monuments of Egypt. In that collection are the facts of snocession of forms and the history of their evolution. All that remains to be asked is how, and that is a subordinate qnestion. With such matters as this before my mind, you will excuse me if I cannot find thoughts appropriate to this occasion. I would that I might have offered something more worthy; but I hope that your association may do what the British association is doing—may sow the seeds of scientific inquiry in your cities and villages, whence shall arise a process of natural selection by which those minds best fitted for the task may be led to help on the work in which we are interested. Again I thank yon for yonr excessive courtesy, and I may almost say affectionate reception.

A BRIGHT little girl at one of the fashionable hotels recently surprised the waiter and guests at the table by hurrying in to dinner among the first, and in advance of her mother, and ordering ice cream, raisins and other delicacies of the dessert before her soup and meats. The solution of her conduct appeared shortly, however, after the arrival of the mother, who watched with great solicitude the food taken by the child. It was, "Baby, don't eat this," and "Baby, don't eat that," until dessert was reached, when "Baby" ordered ice cream. Being cut down in her allowance by her mother, she took it with such unusnal qniet that snrprise was manifested, when she naively exclaimed, "I took my dessert first to-day, mamma, so I should be sure and have enongh."

The annonncement is made in a Tennessee newspaper that "the farmers there are suffering much from hog cholera," Some city editor landering the grangers.



Under His Own Vine, Etc.

Young Folks' Column.

Baby-Mosquito.

Rain-water barrel in the sun,—
Little mosquito-life just begun.
Mother has left her baby alone,
To swim by itself until it is grown;
And there we find it, wriggling and brown,
Its tiny tail up, its poor head down,
Breathing away as best it can,
Dreadfully scared at even a man.
And Johnny and I are laughing to think
How it dives to the bottom as quick as a wink,
While we are only waiting to see
What a funny fellow he will be
When he grows so large—the cunning elf—
That he splits his skin and crawls out of himself.
Then, if you listen—hum—hum—hum—
You'll hear his music and see him come;
For he'll be as starved as a polar bear,
And who gets eaten he does not care.

—*September Wide Awake.*

About Two Little Girls.

Why is it that some children are favorites with every one, while others are disliked? We think an answer will be found in the following sketch of two little girls, which we cut from a paper:

Nellie is such a kind-hearted, unselfish little girl that everybody loves her; she seems to be always thinking of what she can do to make others happy.

If grandma loses her spectacles, up jumps Nellie, saying, "I'll look for them," and runs up stairs, down to the kitchen, into the parlor, and all over the house until she finds them. Then grandma gives her a loving look, and very likely a kiss, and says:

"Thank you, my dear little Nellie."

When father comes home he finds his dressing gown and slippers all ready for him by the grate. Then he sends a loving glance to Nellie, and sometimes says:

"I know the little fairy who anticipates my coming."

When Willie is fretful or teasing his mother while she is busy, Nellie knows at once what to do. She gets one of her pretty picture books, seats herself in her rocking chair, takes Willie on her lap and amnses him until mother has finished what she is doing, and Willie has become pleased and forgotten his unhappiness. Then mother looks approvingly upon her and says:

"That's right, my dear little daughter."

Sometimes auntie drops her spool, or her thimble. Nellie springs to pick it up, and for that she gets a smile of love, and "thank you, darling."

The servants like to see Nellie coming into the kitchen. She is always ready to oblige them, too; and many a "thank you, Miss Nellie," she hears from them.

And so she goes through the day, exchanging loving acts for loving words, and is as happy as a little girl can be.

Not so with her sister, Bella. She is very selfish. No one evers hears of her offering to do any of the kind deeds that make Nellie's days so bright. If asked to do anything, she always has a headache, or her foot hurts her, or she is busy, or she has some other excnse for not doing it. She seldom receives a loving or approving look. Her father never thinks of calling her his little fairy, nor her annt her little darling. All are kind to her, but they cannot love her as they do Nellie.

The servants do not like to see her in the kitchen. After she has gone ont, they say: "Wish Miss Bella would stay in the parlor." Nellie scatters seeds and gathers flowers all the day, while Bella wonnds and is wounded by thorns.

Of course Bella is very unhappy. She always looks either cross or sad. A selfish child cannot but be unhappy. Bnt it is her own fanlt. If she would do as Nellie does, she would be as happy as Nellie is.—*The Children's Hour.*

THEY had company to tea. The table was set out splendidly. The biscuits were as white and light and flaky as snow, and the cake was just lovely. The company were delighted with everything, and were enjoying themselves hugely, and getting the modns operandi of making the biscuit which were too lovely for anything, when the infant of the household unfortunately whispered, "Ma, why don't yon have suoh tea when there ain't company?"

Good Health.

Hints for the Care of the Teeth.

We find in an exchange an article on care and treatment of the teeth, from which we draw several points: Persons with decayed teeth should never drink anything too hot or too cold, as either will attack the nerve and bring on toothache. In having decayed teeth stopped, take care that all the decayed parts are previously cleaned out. Observe, also, that the stopping used is not of mercurial preparation.

In cleaning the teeth, never use any gritty substance, as tending to destroy the enamel coating of the teeth.

To prevent the formation of tartar, rub the teeth on going to bed, and also the first thing in the morning. Pay particular attention to the stomach, and when you find the tongue furred take some proper medicine.

Exposure to cold is the most freqnent cause of rheumatism in the face and toothache; therefore, avoid, when possible, being out in the damp air.

When you have the toothache, do not be persuaded to try creosote; it gives temporary relief to the carious tooth at the expense of destroying the sound members.

In using fomentations, take care your face is not exposed to a draft of cold air, the parts being more sensitive of outward influence at that time.

The worst of all bad habits is picking the teeth with a pin, and nothing is so predisposing to toothache. If such a habit must be indulged in, use a quill. And, lastly, be it observed that the future perfection of the teeth depends upon the attention bestowed upon them in yonth. Parents cannot be too strongly impressed with the importance of this advice; nor can youth be too frequently reminded of any carelessness or neglect to themselves.

Oxygen and Health.

Andrew Roy, in a recent address on the importance of good air in mines, frames the following forcible paragraph:

Jules Verne, one of the ablest writers of our times, has drawn a picture of a peaceful village whose inhabitants had lived for centuries in harmony and contentment. By a peculiar process Dr. Ox extracted from the air its dne proportion of oxygen. The simple villagers who had lived for centuries in peace at once became fretful and quarrelsome; fanciful wrongs which formerly were passed by without concern, assumed large proportions; neighbors who had been life-long friends became enemies, and the whole village came to dagger's points. The quarrel did not end here, but extended to all the surrounding villages, whose people were regarded as enemies, war ensued, and there was no end to the qnarrel until the doctor was discovered at his nefarious work and got rid of.

This picture, like Macbeth's dagger, presents itself every year in many mining villages of the United States, and it will not be clutched until the nefarions practice of bad ventilation has been got rid of. Mines in which the atmosphere has been deprived of its dne proportion of oxygen by the formation of carbonic acid gas will continue to possess a restless and unreasonable population, at dagger's points with their employers and others. Until thorough searching, never ceasing ventilating currents of pure air are made to sweep the places where miners are employed undergronnd, it will be to no purpose to hope to see miners become as reasonable and contented as other citizens of the republic. Fanciful wrongs, magnified one hundred fold, will be nsed as a pretext to get up strikes as an escape from the foul and poisonons gases of the mine, and lawless acts will accompany strikes, particularly when attempts are made to supplant the strikers with new laborers, as snrely as the night follows the day.

CURES FOR NEURALGIA.—Neuralgia is a painful affection of one or more nerves, occurring in some particular habits, but more generally arising from cold in a carious tooth. The pain attending this disease is at times most excruciating, causing at the moment great irritability of mind and body. It comes on with a sudden and shooting pain, which as suddenly subsides, to come on again with greater force, like so many lancets lacerating the parts by a unanimous consent of inflicting torture of the most inteuse description in a given space of time. Many remedies have been prescribed for this agonizing complaint, often attended with beuefit, and at other times with none at all. The best local remedy is the application of iced water, which alleviates the pain instantaneously, possibly to return again; but who, in suffering thus, would uot give their all for a few moments' ease? When the pain is centered in the vicinity of the temple, a gentle emetic, with the application of a small belladonna plaster over the temple, is sure to give relief; or a leech or two will produce a good effect, if applied early in the attack; they seldom fail giving ease, by drawing off the inflamed blood; or the freqnent use of the following evaporating lotion succeeds better in many cases, than any other known remedy, and should be applied as often as the cloth becomes warm from the intense heat of the parts: Solution of acetate of ammonia, two ounces; spirits of wine, two ounoes; snlphuric ether, two drachms, camphor mixture, two ounces; mix, and keep in a well-closed bottle.

Domestic Economy.

How to Make Coffee.

A writer in the Louisville *Courier-Journal* is evidently an epioure on the snbjeot of coffee. He writes about it like a philosopher. We quote a few paragraphs: Coffee grains, however clean they may look in bulk, have some trash and defective grains, and always some little gravel, all of which should be picked out before roasting or parching, and this may be done by putting the coffee to be roasted, or toasted, or parched (for all these terms are appropriate) on a clean cloth spread smooth ou the table, and by a rapid movement of the fingers pulling a few grains from the pile, observing carefully the condition of each, and putting aside all defective grains, for they serve no purpose in making the coffee, but only spoil the flavor of the good. By this process the trash is left where the coffee was lying on the cloth. Notice what a quantity. If the grains of coffee are very dirty, which is sometimes the case, wash iu several waters and spread in the sun to dry before parching.

One or two ponnds of the coffee grains may be parched at once; put in the stove-pan cold and place in the stove, and as soon as it becomes hot stir thoroughly and often, so that none of the grains be burned or scorched to blackness, but so that all will be of a deep chestnut-brown, but at the same time well cooked when regularly of this color. The test as to sufficiency of parching is to take a grain, let it cool a moment and place it between the teeth; and if, by pressure, it breaks easily into pieces, it is well parched. Now be careful not to let it burn in the least; for burnt coffee-grains will not make good coffee.

When parched to that deep brown color, you will find that there is a quantity of small scales among the grains. Pour the coffee again on the cloth, and stir with the hand, and fan all these loose particles out; for if you leave them in, they will not settle, bnt float in your coffee, making it look untidy. Then put yonr parched coffee into the yet warm stew-pan and ponr over the mass of grains the white of an egg, stirring well all the time till each grain is glazed with the egg; this insures settling perfectly; then put the coffee so prepared into a tin canister and keep stopped tightly.

In grinding coffee do not let the mill be so close as to make it a fine powder, nor yet very coarse. The kettle in which the water is boiled must be clean and the water fresh; let the water boil.

As to the quantity of coffee, an ordinary breakfast cup full of parched coffee grains will make good coffee for a family of six or perhaps eight grown persons, but on this point try experiments for yourself; if the qnantity you use one time does not make the beverage strong enough, use more; if too strong, nse less of the material. If the liqnor coffee is too strong, mollify with cream or rich milk; water ponred into a coffee-cup will spoil the coffee. If too weak there is no remedy but to use more of the material the next time.

Never purchase a patent-office coffee-pot; they are costly, and, I repeat, are arrant humbugs; but have different sizes of plain tin coffee-pots, and make your coffee in a coffee-pot that holds, when nearly full, jnst the qnantity you want; for if you make a small quantity of coffee in a large pot, you will pnt in too much water for the quantity of the material, and your breakfast beverage will be spoiled, and as plain tin coffee pots are cheap, you can buy several different sizes for less money than one patent hnmbug will cost you.

Snpposing your coffee has been cleansed and parched and glazed, as directed, and pnt into a tin canister that is air-tight when covered; connt the persons for whom you are to make coffee; measure from the canister, grind to medium fineness, avoiding extremes, mix the ground coffee thoroughly in water, cold or hot, scald your coffee-pot, put in the coffee, and pour on it boiling water from the stove kettle, leave only two inches of the coffee-pot unfilled, stir well, set the coffee-pot on the stove, watch carefully, let it boil up once—not boil over—stir it down, let it boil up again, take from the stove, stir well, set the coffee-pot on the stove-hearth till all are seated at the table, then pour ont a little to clear the spout, and my word for it you will have a breakfast beverage that Jupiter and Juno never enjoyed, and who would to-day envy you the possession of.

RYE BREAD.—Tho *American Agriculturist* gives recipes for making rye bread: "I set the sponge with wheat flonr, the same as for wheat bread. After the spouge has raised well, I mix the dough with rye flour, working it well; after the dongh has raised well, I mold it into loaves, and raise again. Bake on an oven bottom, and when almost done, take the loaves out of the oven and wash them on top with a little brown sugar and water, and then set them back to finish baking. Those who like caraway seeds in rye bread can pnt them in while mixing the dough." Mrs. "M. H. K." says: "As our family are very fond of rye bread, we have nsed it almost entirely this winter, and think our recipe a good one. It is: Take two quarts warm water, and melt in this one tablespoonful of lard, then add the same quantity of sngar and salt, stir in rye flour, making a thin batter; then add a cup of yeast, and let it stand over night to raise. In the morning stir in more flonr, making a thick batter, and when it again becomes light, put into pans and bake, either with or without raising a third time."

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Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, September 16, 1876.

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The Week.

The week finds its most interesting topics in our commercial columns. Wheat is advancing all along the line. The cable gives growing figures in Liverpool, and the reports from all stubble fields indicate a shortage of crops. This is the report from Europe and from the large wheat growing States of the East. There is, therefore, indication that our farmers may gain in gold what will serve as a palliative for the shrinkage at the spouts of the separator. The week brings a considerable movement of barley for Eastern beer, and a ship carries around the Horn, and cars will carry from New York to St. Louis, the grain which our overland road will not kneel to secure. It is time the Southern competing roads should haste and give us quick transit to Eastern markets. Hops follow wheat and shrink both at the East and in Europe, so that we read that even the beer-loving German must slake his thirst with the product of American hops. Wool continues in demand in the Eastern markets.

The Season of Rest and Fairs.

The harvest hurry is over, the crops, whether for better or worse than the grower anticipated, are nearly all gathered, threshed, sacked and sold or stored as the case may be. Already a large amount of wheat is on the water and, in the ordinary course of our seasons there will intervene a time before the water will fall on our dry plains and yellow hillside pastures. It is the farmer's resting time. We read that in Sutter county an editor took a drive into the country and could hardly persuade himself that it was not Sunday: "Everything appeared so different from the bustle and rush of six weeks ago. Even the long strings of heavy laden teams, that a week ago kicked up such a dust, begin to look scattering. The farm houses look as though all hands had gone to camp meeting. There are a few separators out yet, cleaning up the ragged edges, but in a few days they will all hang up in the shed as silent as the harp on 'Tara's walls.'"

The scene which our contemporary notes is reproduced all over the grain growing regions of the State. The hard work of the harvest year is accomplished. In the dairy regions also, there is a period of small flow of milk and the milker's task is light. The fruit is progressing finely in its course from the tree to the market and the drier. It is true that the vintage presses on, but the greater part of our farming population count the days now at hand as giving them most abundant leisure.

It is now the season of visiting, and from near and far the social element will brave the dust. Tried and trusty old friends will seek each other's ranches and discuss the season's work and its results. In the houses the kind ladies will praise each other's culinary skill and solicit recipes; bright eyes and flowing habits will enliven the ways of those who pull the rein; boats and guns will give assurance that the boys know the game season has commenced; excursion parties will seek the abodes of beauty and romance. Many are the ways in which the days will pass until the rains speed the plow. In all of them we have an interest and for all of them we have a longing. Once a year at least the hard laboring farmer should devote the days to rest and recreation, and give his family such a change of scene and surrounding as lie within his means to secure. The result will be stronger men, more contented women and happier children. The home will shine with new comfort and charm as the inmates return to it after wandering. Appropriate to the season of rest comes the season of fairs. From Siskiyou to Los Angeles the State is handed into strips of country, each tributary to some central point, at which will be held a fair during the next four weeks. In the center will be the State fair at Sacramento. We believe that if the farmers of the State will use these fairs for all there is in them, as a means of gaining a better acquaintance with each other, with the productions of farm industry and with the general progress of agriculture, they will find them of incalculable benefit. To do this several things are necessary.

The agricultural fair should be considered by the farmer himself as an institution of his own. It should not be permitted to borrow the name of his industry with none of its spirit, with no real sympathy for his work or his advancement. The highest development of the agricultural fair deserves approval, because it is a thing of good and an institution of usefulness. Interest should be won by the display by the fact that it contains real excellence, excellence which will tell for the improvement of our productive arts. With a condition of agriculture of such wide and varied capacity as ours, who can doubt the efficacy of a general competitive display of what our air and soil can do under the different conditions which prevail. If the showing and comparison of farm products has been so valuable in the Eastern States, where conditions are hard and fixed, and where the questions of production have been studied by generations, who can doubt the value here, where everything is so new and so untried, and where each man's progress depends so completely upon the practical experience of others with which he can supplement his own?

An agricultural fair, true to the name, affords one of the best known opportunities for the dissemination of valuable practical experience. We do not propose in this place to discuss questions of management. We believe whatever there is objectionable in the institutions as now conducted could be overcome in great measure if practical and progressive farmers would interest themselves more thoroughly in their management and promote those features which are most desirable and valuable. To this end we commend our agricultural fairs to the consideration of our farmers now that they have the leisure to bestow attention upon them. We would suggest that every one who has something which seems to him good should prepare to exhibit it. Making an exhibit not only contributes something to the success of the fair, but it sharpens the exhibitor's own interest in it.

There is a wealth of interest, profit and amusement in a fair where the people can meet in gala costume and spend the day in social intercourse. We think it devolves upon our farmers to rescue the agricultural exhibitions from the abuses into which they have fallen. It can be done by fostering the industrial display and turning the shoulder upon the gamblers, small and large, which infest the grounds, until the legitimate features of the show assert their own prominence and push the evil from the field.

The Dairymen's Meeting.

The attention of our dairy readers is requested to the fact that the time set for the dairymen's meeting in this city is approaching. The sessions will begin on Wednesday, October 4th, at a place which we expect soon to announce. Our correspondence with dairymen of different counties during the summer has shown wide interest in the coming meeting and there is reason to expect a good attendance and an interesting and valuable discussion of all topics relating to the practice of dairy husbandry in this State. We trust that all who come to the meeting will expect to take active part in the discussions and thus shed the fullest light of experience upon the questions of dairy management. It will be proper to lay before the meeting all questions which arise in home work, and all requests for information concerning any part of the business will doubtless be carefully answered by practical men.

The meeting is designed for a free interchange of opinion and experience among dairymen. So far, every man has worked in his own individual light or with the aid of such information as he could get from printed pages or from casual consultation with his neighbors. Now it is proposed to extend these means of advancement, and by holding meetings, to enable each member to profit by the results of wide experience. There will be read a number of essays embodying the methods and results obtained in the different departments of the dairy, from the breeding of stock to the manufacture and sale of butter and cheese, and all the points made will be laid before the meeting for discussion.

The meeting comes in a time of least labor to the dairymen, and we trust they will come from far and near to take part in the deliberations of the society. All dairymen are invited to become members and thus firmly establish an organization of their own, through which they can act if conditions require it. The organization is wholly voluntary and has no policy to urge except as members decide upon. It is in the interest of improving dairy practice and increasing the profits from the business. As such it seems to us worthy of the interest of all dairymen, and we hope to see a large attendance at the meeting the first week in October.

A Book of California Grapes.

The literature of our agriculture is advancing in pace with its practice. We learn that the State vinicultural society has under consideration a handsome publication, which if it be as excellent as report says, will be the means of introducing our grapes to the drawing rooms and libraries of all the world. At the late meeting of the society in Napa the subject was discussed, and the *Register* furnishes the following interesting description of the work: "The preparation of the work was commenced some three years ago by Miss Hannah Millard, of San Jose, who has spent much time and labor in preparing the plates and in visiting vineyards and viniculturists in pursuit of the information requisite for the preparation of a work like the one in question. The plates are water colors, giving an exact representation of 20 of the leading varieties of grapes. The grapes are pictured in clusters, and nature is faithfully and artistically followed in the representation of the size, color, form, and general appearance of the fruit. The paintings are highly complimented by persons who are competent to judge of their merits. The text of the work has also been prepared by Miss Millard, and contains a full description of the grapes represented in the plates. On motion of Mr. Hill the following resolution was adopted:

Resolved, That the work prepared by Miss Millard be referred to a committee of three, viz: General Nagley, George West and H. W. Crabb, by whom it can be revised separately. That after Messrs. Crabb and West have revised the work and each submitted his opinion or criticism in writing, General Nagley shall take the same, and as soon thereafter as practicable call the committee together, and they are empowered to prepare a resolution of endorsement and approval of the work so revised, and authorize the publication of the same, with the book, as the endorsement of this society.

It was afterwards voted that the committee be empowered to negotiate with any publishing house as to the publication of the work; or as to soliciting subscriptions to it; and that they may reasonably pledge the members to take at least one copy each, or more than the 500 copies required by Prang & Co. to be guaranteed. Mr. Krug was added to the committee for the purpose of the last motion.

We give this prominence to the project of the society, because it seems to us a matter of much importance. Our market for grapes and wine and raisins lies beyond the boundaries of our State, and a handsome book will win its way and create a desire for actual acquaintance with the peerless products of our vineyards. We think the book, if its quality be found first-class, will be profitable as a business investment on the part of our vine growers.

ON FILE.—"Notes from Yolo County," B. W. C.; "Watermelon and Sorghum Syrup," "My Sulphur Bellows," S. P. S.; "Grasshopper Cure," D.; "Poultry Notes," M. E.; "A Work Dress," M. E. T.; "Centennial Chat," M. M.; "In Memoriam," Vacaville and Pomo Granges.

QUERIES AND REPLIES.

Points in Tree Culture.

EDITORS PRESS:—Will you please answer through your columns the following questions: (1.) Which is the most profitable tree (combining rapid growth with superior quality and quantity) for cultivation for the market? (2.) Does the locust excel in that respect? Can it be got out of the ground after a few years growth? (3.) How far apart should that or the gum tree be set out? (4.) Can the gum tree be worked up only when it is green? How with the locust? (5.) And what of the Monterey cypress? Is there any work especially devoted to the culture of forest trees for the sake of profit, or as ornaments? (7.) How about the English walnut; is it profitable?—ELIZABETH I. RICE, Westminster, Los Angeles county, Cal.

We are indebted for the following interesting reply to Mr. W. A. T. Stratton of Petaluma, who has heretofore placed us under obligations for valuable information in arboriculture. He replies: Here blue gum (*Eucalyptus globulus*) is pre-eminently superior for all purposes. The rapidity of growth, the quality of its wood for economic uses—being the equal of oak, hickory or ash for strength and durability (qualities which no other trees possess) places it far ahead of all our American forest trees. But the quality of its wood depends on the manner of its growth. When deprived of its deep feeding roots, or grown in very rich, moist soils, the quality deteriorates. The best timber will be produced on high rocky ground, and it will thrive and outgrow any of our native trees in such seemingly worthless localities.

2. The locust is almost worthless as a forest tree, although its wood is valuable for many purposes. Its roots are covered with dormant eyes, or adventurous buds, as we term them, which spring up whenever any of the laterals or working fibers have been injured, and instead of the strength or nourishment of the roots concentrating in one main trunk, we soon have dozens (or in moist soils hundreds) of trees. These may be removed, but usually three or four will come up in the place of each one removed. The trees are extremely difficult to be got rid of, except in very dry soils, and they should always be cut or dug up when in flower to destroy them.

3. The distance apart in planting blue gum or other trees depends on the soil and exposure. Many in this country plant six by six, intending in three or four years to remove one-half, leaving them 12 feet each way. Others plant eight feet, and a few ten feet. The rule most safe to follow is, in shallow soils plant not less than ten feet. It should be remembered that the blue gum tree will sprout from the stump (if cut in January) and reproduce itself, except in very wet soils.

4. The same as any hard wood.

5. The Monterey cypress is worthless except as an ornamental tree. Its value for fuel is inferior to our poorest oak.

6. We suppose our correspondent refers to our own State. If so, there is none. But practical heads and willing hearts are hard at work gathering facts, recording experiments, consulting, classifying and arranging in an intelligible shape the labors of years, to supply the want of a reliable work. The design of the author, I believe, is to have it in press early in 1877.

7. English walnut does well if planted in light rich moist soil, but is valuable mostly for its nuts. Why not plant our American black walnut, which thrives here in great vigor in most localities? The wood is very valuable, the trees are easily grown, and to those who have the patience to wait no better investment can be made. Plant the nuts in boxes in sand now, or as soon as possible; keep moist, and in spring time plow your ground deep and thoroughly, and plant your nuts right where the trees are to grow (don't transplant) 18 or 20 feet apart. Some few will miss; these may be replanted the next season.

[In addition to what Mr. Stratton writes under the query No. 6, we will fill the gap which his modesty prompts him to make, and state that the forthcoming book on forest trees will bear his name as author, and we expect a book of great value and practical importance. We can say further, that we have seen in some of our exchanges notices of a book on forest culture by Elwood Cooper of Santa Barbara college, but we have not had opportunity to examine the book.—EDS. PRESS.]

Willow Tree Borer.

EDITORS PRESS:—Will you please inform me by what means I can destroy the willow tree borer? I have a fine tree dying from this cause.—J. R. FELTER, San Bernardino, Cal.

We have not had opportunity to examine any infested willow tree in this State and cannot determine which of the large number of boring larvæ is ruining Mr. Felter's tree. In the East we have had willows attacked by the larvæ of the *Lucanus dama*, and have had good success with the application of strong alkaline washes. Scrubbing the bark with soft soap at the time the eggs are deposited saves the tree from the infliction. We are informed that the grubs hatch out in September in this State, and if that be true, a good generous soaking with soft soap will be effective now. If, however, the grubs have begun their boring it will be best to hunt them in their holes and inject a strong suds of soft or whale oil soap. This involves a good deal of patient labor, but if there be thorough treatment now and a carefully soaping next June and July we should expect good results.

A Magneto-Electric Machine.

Great has been the advance of the knowledge of electricity since Franklin struck the key note. The dread dart from the cloud has been harnessed and made to do work for man. It has come to be produced by a machine and is fairly in hand for useful purposes.

Thinking an illustrated chapter on electricity would be of much interest to our readers we have made an engraving of the magneto-electric machine which Father Neri, of the St. Ignatius college, has been using in his exhibitions of the electric light at the Mechanics' fair.

It is to be presumed in this age of universal education that most people understand something of what is known of electricity, so we need not go into the subject in detail in this connection. With regard to the

Electric Light,

However, sufficient may be said to jog the memories of those whose school days have long gone by. When two pointed pieces of a conducting kind of carbon, such as that which is deposited in the retorts at gas works, are connected with the poles of a powerful battery, as described below, a brilliant light is obtained by bringing them together so as to allow discharge to take place between them. This discharge when once obtained is not interrupted by separating the points to some distance—greater in proportion to the electro-motive force of the battery; and the interval is occupied by a luminous arch (known as the *voltaic arc*) of intense brightness.

Magneto-Electric Machines.

It has been demonstrated that very powerful effects can be obtained from magneto-electric machines of large size driven rapidly. Such machines were first suggested by Professor Nollet of Brussels, and the one used by Father Neri was made by the "Compagnie l'Alliance of Paris." It is by means of these machines that the electric light is maintained in first-class lighthouses; though there are but six such in the world. They have also been employed to some extent in electro-metallurgy. The machine in question has eight rows of compound horse-shoe magnets fixed symmetrically around a cast iron frame as shown in the engraving. They are so arranged that opposite poles always succeed each other, both in each row and in each circular set. There are seven of these circular sets, with of course six intervening spaces. Six bronze wheels, mounted on one central axis revolve in these intervals, the axis being driven by steam power transmitted by pulley and belt. The speed of rotation is usually about 350 revolutions of the axis per minute. Each of the six bronze wheels carries at its circumference 16 coils corresponding to the number of poles in each circular set. The core of each coil is a cleft tube of soft iron, this form having been found peculiarly favorable to rapid demagnetization.

Each core has its magnetism reversed sixteen times in each revolution, by the influence of the sixteen successive pairs of poles between which it passes and the same number of currents in alternately opposite directions are generated in the coils. The coils can be connected in different ways according as great electro-motive force or small resistance is required. The positive ends are connected with the axis of the machine, which thus serves as the positive electrode and a concentric cylinder, well insulated from it, is employed as the negative electrode. When, as in the case in question, the machine is employed for the production of the electric light, the currents are transmitted to the carbon points in alternate directions as they are produced. For electro-metallurgical purposes they are brought into one constant direction by a commutator affixed to the machine. The driving power of a machine of this kind for use in light-houses is about three horse power.

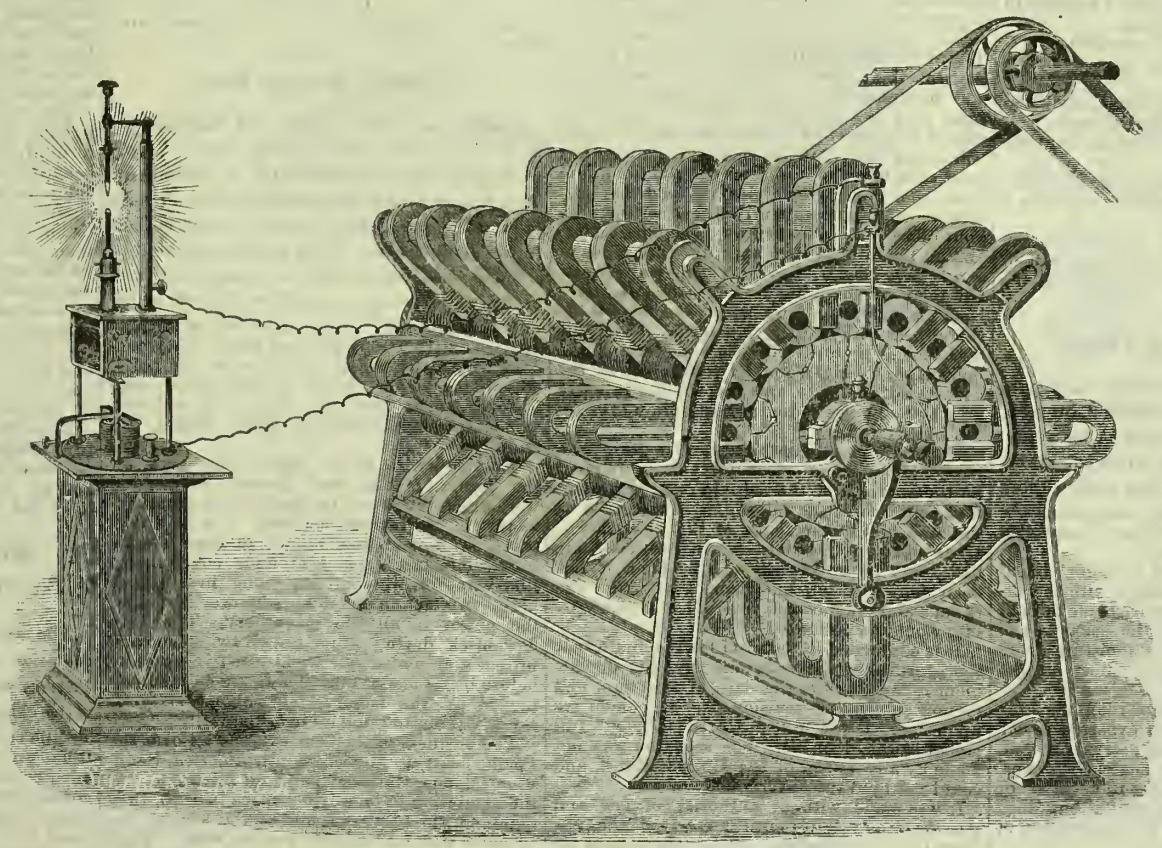
Many changes have been introduced in this class of machines since that of the Compagnie l'Alliance made the first practical application of the principle discovered by Faraday. Wilde & Ladd, in England, constructed large machines, but practically failed; and even the very recent Gramme machines cannot be said to be yet a perfect success in all respects and to supersede the machine above described. They develop too much heat, require larger driving engines and get out of repair too easily, which is not the case with the older pattern.

The electro-magnetic machine at the fair weighs about 4,000 pounds, and cost in Paris 12,000 francs without any of the appliances.

This machine has been very much

Increased in Power

By simple means applied by Father Neri. The principle of the improvement has been understood but this is its first application to the present machine. The improvement consists in coiling around the extremities of the magnets insulated copper wire and passing currents through them to strengthen the magnetism and thereby intensify the action. As the currents are in proportion to the intensity of the magnetism of the magnets and the wire increases the power of the magnets, the effect is proportionately increased by the use of the insulated wire. Although this improvement had been tried on a small scale by Father Neri, the night of the first exhibition at the fair was the initial exhibition since its application to a large machine. It is found to fully double the effect of the machine. Over 5,000 feet of wire are used in wrapping the magnets and it is estimated that the light produced is equal to the power of from 10,000 to 12,000 candles. The current can be turned off or on the coils of the wire at pleasure.



MAGNETO-ELECTRIC MACHINE FOR PRODUCING THE ELECTRIC LIGHT.

The Alden Fruit at the Fair.

We look with favor upon any enterprise which seems calculated to spread a knowledge of our fruit resources, because gaining public notice with a good article is almost equivalent to securing a public demand for it. The Alden fruit preserving company has taken considerable pains to make a good showing of their goods at the Mechanics' fair and they merit public recognition for it. In order to do our part toward this popular approval we propose to describe the exhibit so far as it relates to fruit and vegetables, because these are specialties in which our readers are especially interested. The following is a partial list of the goods on exhibition: Fruits — apples, pears, peaches, apricots, plums, prunes, nectarines, currants, cherries, blackberries, raisins and dried grapes. Vegetables—corn, peas, Irish and sweet potatoes, onions, tomatoes, squash, pumpkin, rhubarb, tobacco, hops; also, beef, mutton, oysters, clams, fish and eggs. These articles are put up in packages of 10 to 50 lbs. each, and in two-pound paper boxes, which are made by the Novelty paper box company of Philadelphia, and are the neatest, most attractive and convenient packages for such purposes that we have ever seen. The apples, etc., are seen under glass, and have a white, clean and fresh appearance, though they are all one and two years old, as we gather from the company's card, and were not put up expressly for the fair.

Alden Raisins.

The display of raisins is also particularly fine, and embraces the Muscatels, Muscat of Alexandria, White and Black Malaga, Black Hamburg, Mission grapes, and Zante currants. They are clean, and as the miller is excluded during the curing process, they will not become food for worms. In raisins cured by the ordinary methods, the sugar exudes, forming little globules on the outside of the raisins, which soon become stale from exposure. There is no such exudation on the Alden raisins. By the Alden process, the free water—the mischievous element—is removed so quickly (in from 30 to 40 hours) that fermentation is prevented, and the saccharine matter is completely jellied. They will keep for years without deteriorating; indeed age improves them decidedly.

Candied Fruits.

The company also exhibit samples of candied fruits and fruits in glass bottles, marmalades and fruit syrups, all of which are quite equal to any imported articles of the kind in this or any other market. They were made at the Alden factory in Sonoma, and are placed on exhibit in a few years our fruit will bring more money into the State than our wheat. The company is composed of enterprising and liberal gentlemen, who deserve the greatest success for their efforts to build up such an important industry in our State.

HOPS IN MENDOCINO COUNTY.—We have had a call during the week from W. D. White, of Ukiah. Mr. White tells us that the hop crop of the county will fall off one-third of the usual yield. His yield this year will be 5,000 pounds against 7,500 last, and Mr. J. H. Burke, a neighbor, will bale 11,000 pounds this year against 24,000 last. The crop in larger yards will fall off in about the same proportion. There will be some loss through lack of pickers. All the Indians of the Round Valley reservation have been employed in picking in Ukiah and Potter valleys, but still there were not hands enough. The Mendocino growers are confident of getting a good price for the crop.

THE reunion of the Californians under the auspices of the Pioneers of the Territorial days of California, was celebrated at the Pacific coast Centennial hall, on the exhibition grounds, on Saturday. About 700 persons were present. General Sutter presided, and speeches were made by General Hooker, Colin M. Boyd and others.

A MORTGAGE of seven million dollars has been placed on the property of the Spring Valley water company.

THE small pox epidemic is rapidly decreasing in San Francisco.

The Isthmus Canal.

A few weeks ago we printed some resolutions adopted by a farmers' meeting in one of the interior counties, calling upon the government to push the Darien canal. There can be no doubt that the realization of the project for cutting off two-thirds of the time and distance which lie between us and the markets of Europe would be of incalculable advantage to us as producers, and enable us to compete on more equal grounds with the Eastern regions which are now achieving prominence in agriculture. It appears, from dispatches received during the week from Washington, that there is a prospect of our government joining with the government of Nicaragua to secure a highway between the oceans. We do not know how much of truth there may be in these dispatches, but we give the information for what it may be worth. The Associated Press telegraphs as follows: "The arrival of Don Emelio Genard, the accredited Minister from Nicaragua to this country, is anticipated with some interest by those who have devoted much time and attention to this work. On his return to Washington, negotiations will be entered into by our government and that of Nicaragua looking to the construction of the canal, and treaties will be proposed to the principal foreign powers upon the general basis of the Clayton Bulwer treaty of 1850, guaranteeing neutrality of the canal, etc. Officers of the government, who have been closely connected with surveys for the ship canal, express the opinion that an undertaking of such magnitude could not be constructed by any private company of individuals, no matter how wealthy and well known, from the fact that many years must be occupied in the work, and it would require a capital of nearly $100,000,000 to complete it. The estimated cost is $65,722,137, but several practical engineers who have examined the route express the opinion that the numerous obstacles to be encountered will increase the cost to nearly the first named sum. At least five years of hard work will be required to complete the canal, and should it be constructed under the contract of the leading governments, it is believed that the work would not be delayed for want of funds to prosecute it. The total length of the canal by the Nicaragua route will be about 61¾ miles. To this is to be added 63 miles of slack-water navigation by way of San Juan river, and 56 miles across Lake Nicaragua. The proposed canal will have 10 locks in its western division, including five locks at Brito, on the Pacific coast, to admit ships at any stage of the tide, each lock having a lift of about ten feet. In the eastern division, between Greytown and the mouth of the San Juan river, seven locks will be required. From the mouth of the San Carlos river to Lake Nicaragua, the navigation of San Juan river is entirely practicable, with the aid of three short sections of canal, each having one lock."

This is the announcement. The estimate which is placed upon the cost of this Nicaragua route is only one-third as great as the amounts demanded for the building of a canal by the other proposed routes, notwithstanding the fact that it is nearly twice as long. The San Blas route calls for but thirty-five miles of canal, and the line by the river Atrato is similar in length; the cost of either of these lines is placed by Trautwine, the engineer of the Panama railroad in 1850, at three hundred million dollars. These short lines, although they do away with the necessity for locks except at tide water, involve a great deal of tunneling and rock work, which makes their cost almost fabulous. If the Nicaragua route can be proved as cheap as stated in the above dispatch it will of course be the line to follow. We await more information on the subject.

NEVADA STATE FAIR.—The Nevada State fair is in progress this week at Reno. The beginning was under good auspices. A dispatch on Tuesday was as follows: The opening day of the third annual fair of the Nevada State agricultural, mining and mechanical society augurs well for its being the most successful exhibition which has ever been held here. The attendance is larger than it has ever been before on the first day, and the entries in all the departments are more numerous. The pavilion is already well filled, and a large force of entry clerks are kept busy in recording the new arrivals. The art department would be creditable to much older places, and the articles of Nevada workmanship are meritorious. Light wagons and carriages make a fine display, and the agricultural and mining machinery are greatly admired. The weather is beautiful, the clear mountain air as exhilarating as a draft of the vintage of Champagne.

Useful Information.

Condensed History of Steam.

Abont 280 yeara B. C., Hero, of Alexandria, formed a toy which exhibited some of the powers of ateam, and was moved by its power.

In 540, A. D., an architect arranged aeveral caldrons of wat(e)r, each covered with the wide bottom of a leather tube, which roae to a narrow top, with pipes extended to the rafters of the adjoining bnilding. A fire was kindled beneath the caldrons, and the house was shaken with the efforts of the steam ascending the tubes. This is the first notice of the power of ateam recorded.

In 1543, June 17, Brasco de Garay tried a steamboat of 200 tons with tolerable success, at Barcelona, Spain. It consisted of a caldron of hoiling water, and a movable wheel on each side of the ship. It was laid aside as impracticable. A present, however, was made to Garay.

Iu 1630 the first railroad was constructed at Newcastle-on-Tyne.

The first idea of a steam engine in England was in the Marqnis Worceater's "History ot Invention," A. D., 1663.

In 1701 Newerman made the first engine in England.

In 1764 James Watt made the first perfect steam engine in England.

In 1766 Jonathan Hulls firat aet forth the idea of steam navigatiou.

In 1778 Thomas Payue first proposed the applioation in America.

In 1781 Marqnia Jouffrey constructed a steamboat on the Saone.

In 1781 two Americans published a work on it.

In 1789 Wm. Symington made a voyage in oue on the Forth and Clyde canal.

In 1802 this experiment waa repeated.

In 1782 Ramsey propelled a boat by steam at New York.

In 1789 John Fitch, of Connecticnt, navigated a boat by a steam engiue on the Delaware.

In 1794 Robert Fulton first began to apply his attention to steam.

In 1783 Oliver Evans, a native of Philadelphia, conatructed a steam engine to travel on a turnpike road.

The first steam vessel that ever crossed the Atlantic was the *Savannah* in the month of June, from Charleston to Liverpool.—*Hunt's Merchants' Magazine.*

How to Keep Flour Sweet.

The *Milling Journal* addressed an inquiry to a leading miller as to the best method of keeping flonr sweet. The followiug is his reply: "If the wheat is perfectly dry when put into a bin or garner, it will keep a long while without heating; it will, however, keep much longer in a bin where a current of fresh air is admitted than where it ia perfectly close.

"Second. 'Aa to the vessel used for flonr,' we have had no experience, except with the ordinary flonr barrel. The best are made of oak, either white or red, made in the usual way of perfectly seasoned stuff. The moisture from green wood has a very injurious effect on the keeping properties of flour.

"Third. 'Of the building or room nsed for storiug.' We believe from our experience that flonr keeps better in a cool, dry, airy room than anywhere else. During the heat of aummer, flour shonld not be stored either in a cellar or garret, but in the central stories of a bnilding, kept open so as to have a free circulation of fresh air among the flonr.

"Fonrth. 'Of any other special requirementa, precantions, or peculiarities, necessary to perfect preservation.' We may observe that it ia very important to keep the flour from exposnre to hot snn or to wet. If ahipped to distant ports,' even in the United States, great care ahonld be observed with regard to the vessel and other kinda of cargo; the hold ahonld be dry and well ventilated dnring the voyage. If stowed with corn or oats that become heated, the flonr will also heat and sonr. Many other articles have this effect on flonr. We have had flonr soured ou a voyage to Boston by being stowed in contact with some deleterious article.

"This is a very important subject,—one that has claimed onr attention for many years, and we regret we cannot give yon more valnable information."

Pull Corks with Care.—An English medical jonrnal contaius the following disagreeable but intereating information: "A man was last week admitted into Croydon general hospital with one of his eyes so damaged by the cork of a ginger-beer bottle which he was opening, that it waa fonnd necessary to remove the eyeball. We have also heard of many other injnries produced in thia way. But it ia not, as a rnle, the operator of the bottle who is the victim. People have geuerally sufficient consideration for themselves to point the dangerous weapon in another direction. Barmaids, especially, are very carefnl not to incur any damage from fugitive corks, bnt they are, nnfortnnately, not eqnally careful about other people who may be in the line of fire. We think that mnch more care onght to be exercised in dealing with all explosive agencies, inclnding soda-water bottles. The careless way in which the corka are now pried ont in many refreahment rooms, and allowed to go twhere they list, is very censurable."

Lieu Lands.

Modified Decision of Secretary Chandler.

The State Board of Land Commissioners received on Friday, from the Department of the Interior, Waahington, the following modified decision in the caae of Selby, et al., pre-emptora, vs. the State of California:

Department of the Interior,
Washington, August 18, 1876.

Sir: The case of George C. Selby et al., pre-emptors, vs. State of California was decided by me under date of March 10, 1876, in favor of the pre-emptors.

It having been shown that this decisiou affected the title of the State to a very large and valuable body of lands, and that the State authorities, being unaware of the pendency of the case, had failed to present any argument in aupport of its title, a rehearing was ordered by me, and very full and exhanstive argumeuts have beeu presented iu behalf of hoth parties. Never doubting that all sections of lands made hy the State of California in lieu of the 16th and 36th sectiona embraced within the limits of a private graut before the approval of the snrvey of such grant were irregular, and not in conformity with law, and being informed that the subject of confirming auch aelections was pending in Congress, I have withheld my decision in the case for the action of that body.

Congress having adjonrned without legislatiug on the aubject, it beoomes my dnty to dispose of the case. It cannot he doubted ,aud I do not understand it to he questioned by the attorneys for the State, that the right of the State to make their seleotions only attaches when the final anrvey of the grant is made. Whether a survey is final or not can only he known when it receives the approval of the commissioner of the general land office; consequently the right to select can only be exerciaed by the State npon auch approval. Tested by this rule, the selections made by the State of the lands in question were prematnre and irregnlar, and if the lists containing the same were now presented to me for approval, I should be compelled to reject the same. But I learn that the State, in many instances, has proceeded to make selectiona without obtaining lists from the Snrveyor-General, and these selections have subsequently been certified by your office and approved by this department, and on the faith of snch approval thousands of acres have been sold to bona fide pnrchasers. On many of these lands improvements have been made by snch purchasera, and their value thereby become greatly enhanced. From the date of the approval of these selections the landa have been treated by yonr office as the property of the State, aud not subject to entry under the homestead and pre-emption laws of the United States.

Under these circnmstances no aettler who has gone upon the selected lands snbsequent to the approval of the selection can complain that he did not have full notice of the olaim of the State and of the action of this department. If any person enteriug adversely to the State has made improvementa on the land, it has been done with fnll knowledge that nnder the rnlings and practices of your office no entry by him would be permitted.

It is contended by connsel for the State that the approval of the selectioua by this department relates back to the date of aelection, and is not subject to revision, bnt is conclusive upon me. I am not prepared to yield full assent to this doctrine. The selection was not made by any officer of the United States, and could not bind the government.

It was made without authority of law and possessed no validity until it received the approval of the Secretary. From the date of its approval it operated aa a reservation of the lands from private eutry, but the approval under snch circumstances shonld uot be held to relate back to the date of seleotion to the injury of adverse claims to the land. In this case it appears that the township plats were filed in the land office at San Francisco, April 22d, 1868, and the greater part of the lands were seleoted by the State ou the aame day; one tract was aelected May 12th, 1868, and on the 27th of May, 1868, the plats were withdrawn by the Surveyor-General. The plata being withdrawn, from the record it also appears that the selectiona were entered up by the Register. The plata remained withdrawn until November 21st, 1871, wheu they were filed in the Los Angelea district, within which the lands in question were then situated. In the meantime the parties claiming under the pre-emption laws allege that they settled upon the land in good faith, without notice of any claim by the State. The aelections were approved by Secretary Delano on the 24th of November, 1871, with the exception of sonthoast qnarter scction 29, townahip 2 sonth, range 13 west, which was approved October 26th, 1872.

Selby, Wilkinson, McClain, Green, Foster, McCreary, Ketchum, Douglas and Haud were each allowed to file D. S. for the lands occnpied by them. Their filings were promptly offered, in some instances before the approval of the selectiona, and in every instance within 15 daya after the filing of the plats, and each allege settlement loug prior to November 21st, 1874, though subsequent to April 2nd, 1868.

I cannot learn that their filings were canceled by your office, or that auy objection waa made thereto, nntil they offered to prove up and pay for the land, when the entries were held by you for caucelation, and the caae is now here on appeal from that order.

Jamea Pierce applied to file February 14th, 1873, alleging aettlement July 25th, 1870, and Joseph McEvoy applied to file March 29th, 1872, alleging settlement October 21st, 1871.

In view of the facts above atated, I am of the opinion that my decision of March 10th, 1876, should be vacated, and the aelections approved by this department to the State before final survey of said granta should be permitted to stand, snbject to the following qnalifications.

First.—All subsisting homestead or pre emption rights which antedate the approval of the selections should be allowed priority over the claim of the State.

Second.—Whenever upon approval by yonr office of the survey of a private grant, it shall be fonnd that any section or part of section for which lieu lands have been selected, falls without the survey, the selections so made shall be deemed invalid unless the State ahall snbstitute therefor another aixteenth or thirty-sixth section, for which it ahall then be entitled to make selections. No fnrther aelections should be permitted in advance of the approval of the survey, and the Surveyor-General of California shonld be instructed not to furnish lists to the States of the sixteenth and thirty-sixth sections included within the limits of any private grant, until he shall have received offioial information from you that the survey thereof has been approved. Selectiona by the State ahould only he permitted upon the lists received from the Snrveyor-General.

Applying the rulea above indicated, I direct that Selby, Wilkinson, McClain, Green, Foster, McCreary, Ketchum, Donglas and Haud be allowed to make their final proof, and upon showing full compliance with the law, they be permitted to make payment aud receive patent for their land.

The applications of Pierce and McAvoy came too late and should be rejected.

I return herewith the papera transmitted with yonr decision. Respectfnlly,

Z. Chandler, Secretary.

To the Commissioner of the general land office.

California Wooden Ware.

Among the notable exhibits of home mannfacture at the fair, that of E. K. Howes & Co.'s manufacturers of wooden ware, is prominent. This firm make a handsome display of all sorts of wooden ware, every piece of which ia California mannfacture. They make every kind of wooden ware that is nsed for household, farm or dairy purposes, a small variety of which only is exhibited. In the mannfacture of these articles native woods only are nsed. They conaume annnally about 2,000 cords of bolts, comprising cedar from Puget sound and Truckee, augar pine from the coast, and redwood, sprnce, cottonwood, alder, maple, ash and fir.

We paid a visit to the factory this week, on the corner of Main and Mission streets, and were much interested in the process of manufacture of the various articles. Almoat everything is done by machinery in some aimple way. The tactory and grounda cover over a fifty-vara lot, the building being three stories high. An engine of 150 horae-power furnishes the power to all the machinery. There are five brick drying kilns heated by steam and furnaces, in which the wood nsed is seasoned before being made up, There are 40 men employed in the factory, and abont sixty or seventy thousand dollars invested in it.

The busiuess of the firm extends all over the Pacific coast, to Mexico, South America, Sandwich Islands, China, Japan and Australia. At the exhibition in the latter place in 1875, they obtained the bronze medal of the society, for auperior workmanahip in wooden ware. They have also had five other gold and silver medals awarded by the Mechanics' Institute and State fair, over all other competitors. There ia one other manufactory of like character here, and one in Sacramento, but E. K. Howes & Co. state that they mannfacture more than the other two together, having the most complete establishment this side of the Rocky monntains.

The factory is complete in its organization, having fire-walls, brick engine rooma, steam and water pipes throughout. They keep 400 feet of hose attached at all times, and a watchman is on dnty day and night. Among the large articlea manufactured hy this firm is the Eureka refrigerator and water cooler combined, (which we recently illustrated and described). This haa had snch a sale that four men are kept constantly employed in their manufacture by machinery, the demand increasing all the time. The celebrated Eureka matches are also manufactnred by E. K. Howes & Co. at their factory. At the salesroom and store, 118, 120 and 122 Front street, a very large assortment of everything in their line is kept. Buckets, tubs, chnrns of all sizes, and things of a similar character in endless variety may be aeen. Twine uets and seiuea, fiahing tackle, brushes, eto., are also on hand. It ts also the agency of the Pacific cordage company.

Without going into detail of the process of mannfacture of the varions articles, which our space does not permit, it would be very interesting for auy one who has not aeen it to make a visit to the factory. Even the aimple operation of making an ordinary water bucket by machinery is intereating. The modus operandi of the different branchea of manufacture will be ahown to any one who will call npon Mr. Howes, who will take great pleasure in showing them the model wooden ware manufactory of the Pacific coaat.

Taste and Comfort in the Home.

The home is the citadel of civilization. The habitation with its varying degreea of taste and comfort marks the progress of the inhabitant from barbarism to enlightenment. And the home is not merely an embodiment of refinement; it is alao an active and effective promoter of refinement. The influence which an enlightened race exerts npon the material of which it makes its homes, ia answered by the reflex influence of the home upon the people. The home molds the rising generation, it forms their minds and their lives upon the model of its own comfort, beauty and refinement.

When we look upon a display of home comforts which is characterized by refined taste, by true symmetry and qniet beauty, and gilds these qualities with the marks of richness of material and elegant ornamentation, we feel that here are influences for good which each owner of a home ahonld avail himself of to the fullest extent of his ability.

Let us illustrate hy the display of home elegance and comfort which is made at the fair by the California furniture company. We argue that snch an exhibition is for the public good. Every one who looks upon the chaste designs and blending colors, feels the influence they exert, and when these beauties are transferred from the Bush street warerooma or the Pavilion display to the home itself, this influence is hightened. Take for example the splendid Eastlake dining-room furniture. How it reflects the elegance of culture, the refinement of good breeding. How the mind centers upon it. How it longs to place upon it the mark of property in the unique monogram of the family name. What a satisfaction to bring one's family into daily association with these home elegancies and comforts, and to gather one's friends where everything speaks the welcome of refined hospitality.

Nor are these remarks less trne when applied to the parlor articles shown hy the California furniture company. Whether it be the beautiful cabinet inlaid with ivory, or the fawn-colored satin drapery for hangings, or the chairs, divans, and other specialties which make up the harmony of the whole; all of them are expressive of the idea which we would enforce, viz: that true beauty and taste are powers in the home which no one can afford to disregard. What for example can be more in sympathy with the graces and refinements of life than the conversation chairs, in black satin and gold, in which a trio can sit and converse face to face, and in which conversation must of necessity be bright and charming.

These few features of the California furniture company's display will serve to enforce the points we would make. Beautify your homes and let your homes refine and embellish the lives and characters which are fostered therein.

A Standard Employment Agency in San Francisco.

The agency to which we would now call the attention of the readers of the California Patron, was established twenty years ago, and is the oldest establishment of the kind on the Pacific coast. From a small beginning in 1855, it has grown to snch dimensiona that it has been compelled repeatedly to move into more commodious quarters, and now it occupies the large double store formerly occupied by M. Gray & Co., No. 625 Clay Street, next door west of the banking house of the San Francisco Savings and Loan Society, one of the most central business locations in the city. MESSRS. CROSETT & CO. are daily supplying orders sent from all parts of the State, containing requests for every variety of labor, for the farm, the field, orchard, vineyard, tending stock, or cultivating the soil; for all kinds of lumber, milling and mining work, from superintendent down to simple laborer; for the shop, mechanics, engineers, artisans, and skilled workmen of every kind. Nor do their orders contain requests for male help alone. Great pains is taken to supply onr honsewives with the very best Domestics, Cooks and General Honsemaids that can be obtained. They would call the especial attention of GRANGERS AND FARMERS GENERALLY to their facilities for supplying farm help. Referring confidently to their past record for faithful attention to the wants of patrons, they have no hesitation in assuring all applicants who may favor them with their orders, that they can nowhere else be better or more promptly served than by applying to this old established agency. Mr. Crosett gives his constant personal attention to his business. His long experience makes him quick to see and accurate in judging of the merits of those who apply to him for situations. And his well established and wide extended reputation brings to his office an abundant supply of every kind of labor, from which he is enabled to select the best.

All this advantage Mr. Crosett gives to those who favor him with their orders, and that, too, without any expense to the employer—all the fees, (which, by reason of a large business being transacted, are moderate), being paid by the employee. The Employment Agency of Messrs. Crosett & Co. is supplying a great need in onr State and we take pleasnre in commending it to all readers of the Press.

THE NEW WILLCOX & GIBBS Automatic Tension Silent Sewing Machine is the latest and most marvellous invention in sewing mechanism. It is the only sewing machine that can be used successfully without instruction or experience, and invariably does perfect and durable work. First premium at American and Franklin Institute Fairs, November, 1875. Send for circulars and price-list to Willcox & Gibbs Sewing Machine Co., E. B. Cutler, Gen. Agent, 111 Post street, S. F.

HARD ON THE PUBLISHERS.—Some of our subscribers when called upon by our agents insist that they have sent us notices through (perhaps) a neighbor, the postmaster, or a letter, and we have taken no notice of their orders, for which they feel hard towards us. Now, we never received such notices without responding to them. *It would be suicidal to our interest to ignore them.* The fact is that it too frequently happens that people misdirect their letters; too frequently forget to put the right (or any other) kind of stamps on their letters; they too often send a copy of the paper back, which may never reach our business office, or if it does reach us, may lack the name of the town and county in which the subscriber lives, in which case we cannot (if we have his name) tell what part of our list to find it, to cross it off or change it, without looking over some 10,000 names. Postmasters and their clerks make omissions and mistakes as well. ☞ When you have business with this office remember postal cards and letter stamps are cheap, and ask no one to do that which you can well do yourself. tf

AMERICAN MANURES, OR FARMERS' AND PLANTERS' GUIDE.—Comprises a description of the elements and composition of plants and soils; the theory and practice of composting; the value of stable manure and waste products, etc. Also, a chemical analysis of the principal manufactured fertilizers—their assumed and real value—and a full expose of the frauds practised upon purchasers. By Wm. H. Bruckner, Ph. D., Phila. Sold at this office. Price, $1.75; post paid.

THE THRESHERS' GUIDE, by D. W. Hollihan, a practical operator with threshing machinery in California and other States. A book of useful and friendly hints to the grain growers, machine owners and threshing superintendents and workmen. Published at the RURAL PRESS office, in 1872. Price, $1; in limp cloth binding, 75 cents; postage paid.

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

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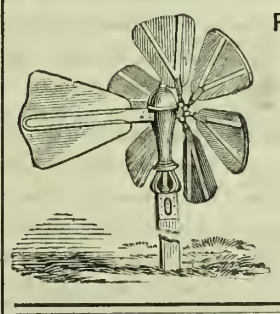
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One farm adjoining of 100 acres; good house, barn and outbuildings, young orchard—well watered; Cache creek, a never failing clear mountain stream, running through both farms. Price, $3,000.

Also, **Town Lots in Capay**, soon to be the center of trade and railroad depot for the western and northwestern portion of the county, and also for the quicksilver mines of Lake and Napa counties. Price, $50 to $150 per lot.

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5,000 Acres of the Lake Vineyard Land and Water Association.

These lands are in the great fruit belt of Los Angeles County,—only six miles from the city are peculiarly adapted to semi-tropical fruits, and adjoin the famous Lake Vineyard of Hon. B. D. Wilson. The Southern Pacific railroad runs through the land; convenient to schoolhouse and church; water in abundance, and the water-right is sold with the land. Title perfect. A Map of the tract may be seen at the office of Mayor Beaudry, on Spring street, opposite City Council rooms. Refereuces may be made to HON. B. D. WILSON or J. DE BARTH SHORB, at Lake Vineyard, who will take pleasure in showing the lands. Also, to MAYOR BEAUDRY or D. FREEMAN, Los Angeles city.

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M. EYRE, Napa, Cal.

In view of above I offer a few fine Fowls, Bronze Turkeys, etc. (not included in breeding pens and stock sold with farm), at reduced prices.

FARM FOR SALE,

In the Most Fertile part of California.

410 Acres of the Choicest Land in Butte County, four miles from Chico, on Butte Creek.

300 acres grain land, the balance garden land; will grow corn, cotton, hops, potatoes or garden vegetables. A ditch from Butte Creek conveys water upon the highest land; nearly the whole can be made into gardens, or could be easily seeded to alfalfa. The water right will be sold with the farm. The title is perfect. A large part of the price might remain on mortgage. Unless sooner disposed of at private sale the farm will be sold at auction, September 20th. For particulars, inquire of

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1,150 Acres of Land, well watered and wooded, under fence. About 350 acres of good wheat land, the balance excellent pasture—suitable for a milk or stock ranch. Apply to R. E. ROWLAND, San Pablo Creek, Cal., or to P. SATHER, Cor. Montgomery and Commercial Sts., San Francisco.

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A Notable Railroad Connection.

Engineering on the Southern Pacific Railroad.

The event of driving the last spike in the railroad connection between San Francisco and Los Angeles, which occurred on Tuesday, Sept. 5th, was one of great importance, indicating as it does the gradual opening up of southern California, Arizona, etc., and bringing them into more direct communication. The road passes through the San Joaquin valley, from Lathrop in the north (where the line branches from the Central Pacific), to Tehichipa, a distance of 300 miles, on almost a level. The work of tracklaying was comparatively inexpensive, with bridges crossing the Stanislaus, Tuolumne, Merced, Fresno and Kern rivers, and other streams flowing from the mountains to the San Joaquin. The San Joaquin Valley railroad, which comprises this section of the road, intersects the counties of Stanislaus, San Joaquin, Merced, Fresno, Kern and Tulare, and all the products of Tuolumne and Mariposa counties will find their way to market on this great highway.

The only natural passes across the barrier separating Los Angeles from San Francisco are the Tehichipa and Tejon passes, the former of which was chosen by the railroad engineers as the easier through which to run their track, and from there it debouches into the Mohave desert. These were not the only obstructions to be overcome, and the San Fernando tunnel, the longest on this side of the continent, had to be bored, and the work was performed with more than ordinary expedition.

San Francisco is now placed in communication by rail with Los Angeles, San Bernardino, Santa Monica, Wilmington, Anaheim and Santa Ana. Los Angeles is now the center of an extensive railroad system, branches extending to Santa Monica, Wilmington and Anaheim, besides the main trunk of the Southern Pacific railroad, which runs through it. The branches extending to Wilmington and Anaheim are owned and controlled by the Southern Pacific railroad company, that to Santa Monica is the nucleus of the Los Angeles and Independence railroad. All that remains of the Southern Pacific railroad to be built is from Indian Wells to the Colorado river, at or near Fort Yuma.

The engineering difficulties in building the road were very great, and those encountered in ascending the Tehichipa canyon surpass anything encountered on an equal distance in the Sierra Nevada. Every artifice had to be employed to enable the engine to climb the steep grade, and within 19 miles there are 17 tunnels in ascending the Tehichipa. A few statistics regarding the length and size of these tunnels cannot prove uninteresting. Tunnel No. 1 is 245 8-10 feet long; No. 2, 232 2-10 feet; No. 3, 707 7 10 feet; No. 4, 257 feet; No. 5, 1,156 3 10 feet; No. 6, 303 7-10 feet; No. 7, 532 7-10 feet; No. 8, 690 feet; No. 9, 426 2-10 feet; No. 10, 406 6-10 feet; No. 11, 158 8-10 feet; No. 12, 756 3-10 feet; No. 13, 513 8-10 feet; No. 14, 512 7-10 feet; No. 15, 360 7-10 feet; No. 16, 262 5-10 feet; No. 17, 260 9-10 feet; making a total of 7,683 9-10 feet. Nearly all these tunnels are heavily timbered with stanch 11x14 inch redwood timbers. At the bottom they are 14 feet in the clear, or 16½ feet in excavation. They are 22 feet in hight, and the shoulders at the springing of the arch are 18 feet four inches. In the Soledad canyon there are two more tunnels, numbered 18 and 19, the first being 264 feet long, and the latter 332 feet. The longest tunnel on the coast is the San Fernando tunnel, 6,966½ feet in length.

This triumph of engineering skill was commenced on March 27th, 1875, the headings met July 14th, 1876, and the timbering was completed August 9th, 1876. It is built on a slope of 37 feet to the mile, and is perfectly straight, so that one can see through it. It is not cut through a single mountain, as in the case with most undertakings of this kind, but runs through a succession of ridges and canyons. The entire length is 6,966 feet, or nearly a mile and a quarter. This is exclusive of the heavily graded approaches, which aggregate half or three-quarters of a mile more. The deepest point in the tunnel is 600 feet below the top of the mountain. The excavation is made in the form of a trapezoid, only that the top which forms the longest side of the figure is surmounted by an arch. The width of the bottom is 14 feet, the hight of sides to the commencement of each, 16 feet, and the hight to center of arch 21 feet. The sides and top are protected by heavy timbers, braced, fitted and spiked into the aperture as soon as the earth is removed. The south approach ascends at a grade of two feet in 100, until it reaches the mouth of the tunnel, where the road-bed strikes a uniform gradient of 71-100ths of a foot in 100, rising toward the north. At the northern extremity it reaches its highest point, and then descends with the same incline as the southern approach. Work was commenced simultaneously at both ends, and at three intermediate points on the line of the tunnel. From these points inclines were sunk to the level of the road-bed to further the work of excavation and provide ventilating facilities when the tunnel was completed. The tunneling was originally started some distance from the present face, but the overlying earth caved in so badly that it was found necessary to make excavations about 60 feet deep before sufficiently solid earth was found. Another obstacle which presented itself was an excessive flow of water, rendering the work of excavating not only dangerous but very expensive.

Tunnel 9 is at the famous loop of Tehichipa pass. This loop completely encircles a mound and by so doing gains a difference in elevation of 77 feet 46 inches. Emerging from tunnel 9, the train winds around the mound and passes directly over the tunnel at right angles, having made a curvature of 300 feet 52 inches. The length of the loop is 3,794 feet. Pictured on the map this loop looks like a coil thrown carelessly in a rope; it is a veritable corkscrew. It is claimed to be a novel and original achievement in engineering. The total length of tunnels between Caliente and Los Angeles, as given above, is 15,246 4 feet.

The road has been built to within 100 miles of the Colorado river, which it will reach before the close of the year. The whole distance from here to Fort Yuma by the road is 715 miles, over 600 of which are completed. The last spike in the connection was driven by Charles Crocker. It was made of Los Angeles county gold. Appropriate ceremonies, participated in by the railroad directors and prominent citizens from Los Angeles and San Francisco, were held. A banquet was given, toasts offered and speeches made. Trains leave here now daily for Los Angeles at 4 P. M., arriving at Los Angeles the next day at 3:30 P. M.

New Publications.

VICK'S FLORAL GUIDE for the last quarter of the year is received, full as usual of beauty and utility. The leading articles are on "Autumn work in the garden," "Window gardening" and "Culture of bulbs," all of which are illustrated and valuable. The other pages are descriptive of plants, with prices, etc. Mr. Vick places his customers under great obligations by the valuable information furnished in the "Guide." The first number for 1877 will be ready December 1st. James Vick, Rochester N. Y., is the address.

W. D. Frazer has written a comprehensive and fluent pamphlet on the climate and resources of San Bernardino county. Much valuable information may be had from it. Published by the *Argus* office, San Bernardino, Cal.

We have received a copy of a pamphlet published by A. L. Bancroft & Co. of S. F., by request of the common council of Santa Cruz, containing the historical papers relating to Santa Cruz, Cal., prepared in pursuance to the resolution of Congress for the National Centennial celebration, July 4th, 1876. The author is S. H. Willey D. D., and the publication is a valuable contribution to our State history.

SCHOOL LAW OF CALIFORNIA has been received with compliments of Hon. E. S. Carr, superintendent of public instruction, Sacramento. The book contains the rules and regulations of the State boards of education and examination, list of school library books, course of studies for public schools, constitutions of the United States and California, and other valuable matter. The book is published by the State for the use of schools, and a copy should be in the hands of all who are interested in our flourishing school system.

HISTORY OF THE SILK INDUSTRY IN AMERICA is the title of a valuable publication which we have received from Franklin Allen, secretary of the silk association of America. The volume contains a great variety of useful and entertaining matter not previously attainable to the public. The hitherto unwritten story of the struggles and difficulties through which the silk industry of this country has advanced to its present position is here presented with sufficient personal detail to give a life-like picture of the past, and inspire hope for the future. The object sought, and which it is believed has been attained, is to give in a form adapted for popular perusal those personal incidents and facts which have made the actual experience of silk manufacturers scarcely less interesting than an elaborate work of fiction might be, while on the other hand no pains have been spared to attain absolute historical accuracy. The volume contains over 300 pages, and includes with its lighter matter many tables of carefully prepared and new statistics, which must prove of great practical value in the business, and give the history a permanent character. The work is illustrated by 24 engravings presenting views of the prominent silk mills in Massachusetts, Connecticut, New York, New Jersey and Pennsylvania. For the purpose of enabling every one to possess a copy of this volume, it has been issued at a price barely sufficient to defray expenses: $1 per copy in paper, $1.50 bound in cloth. Copies can be had by addressing the American news company, New York.

ZOOLOGICAL GARDENS FOR NEW YORK.—During the coming winter an effort will be made to organize a society, with a capital of over $200,000, for the formation of zoological gardens in New York. It is hoped by the movers that the Legislature will empower the commissioners to set aside a portion of Central Park for such gardens, but the commissioners themselves are opposed to this at present, claiming that they cannot afford room. The zoologists hope to convince them to the contrary.

ARRANGEMENTS are now being made by the Marine division of the Treasury Department for placing into active operation, and immediately, life-saving stations on the lakes.

HENRY A. WISE died at Richmond, Virginia, on the 12th inst.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

FOR WEEK ENDING SEPTEMBER 5TH, 1876.

TURN TABLES FOR ENDLESS TRACTION WAYS.—Joseph Britton, S. F.

TREE TRANSPLANTERS.—Timothy Carroll, Anaheim, Cal.

METHODS OF SETTING HAIR-TRIGGERS OF RIFLES, ETC.—George O. Leonard, Red Bluff, Cal.

PROTECTORS FOR CHANDELIERS.—Frank J. Symmes, S. F.

MACHINES FOR COMPACTING LOOSE GRANULAR SUGAR INTO CUBES.—Thirsy L. Wadsworth (executrix of Wadsworth, deceased), Sacramento, Cal.

ORE ROASTING FURNACES.—John Winterburn, Cambria, Cal.

——The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

General News Items.

TWEED has been arrested in Spain.

"ETHAN ALLEN," the celebrated race horse, is dead.

THE Nevada State fair opened at Reno on the 11th inst.

OUR city treasury is in a far from healthy condition.

THE buildings at the Cheyenne Indian agency have been swept away by a flood.

THE troops in the Indian country are hunting winter quarters instead of the Sioux.

A DELEGATION of workingmen arrived in New York from Germany on Sunday, and proceeded to Philadelphia.

THE President has proclaimed the Hawaiian treaty to be in full force, so island products now enter our harbor free of duty.

THE proposed trip to the United States on board one of the ships of the White Star line by a group of members of Parliment has been abandoned.

SUBSCRIPTIONS are being taken up in Philadelphia for the relief of yellow fever sufferers in Savannah. At a meeting on Monday night $1,000 was subscribed.

Fairs in 1876.

The Centennial (World's Fair), Philadelphia, Pa., from May 10th to continue till autumn.

Mechanics' Institute Industrial Fair, S. F., beginning August 8th.

California State Fair, Sacramento, from Sept. 18th to Sept. 23d.

The Southern District Agricultural Society, Los Angeles, from Oct. 5th to Oct. 14th.

Nevada State Fair, Reno, Nev., from Sept. 11th to Sept. 16th.

Sonoma and Marin District Fair, Petalnma, from Oct. 9th to Oct. 16th.

Oregon State Fair, Salem, from Oct. 9th to Oct. 16th.

Northern District Fair, Marysville, from Oct. 9th to Oct. 16th.

San Joaquin Valley Agricultural Fair at Stockton, beginning Sept. 26th.

Contra Costa County Fair, Pacheco, from Sept. 25th to Sept. 29th.

Monterey Agricultural Fair Association, Salinas city, from Oct. 11th to Oct 14th.

Santa Clara Valley Agricultural Society, San Jose, from Oct. 2d to Oct. 7th.

Humboldt District Agricultural, Mining and Mechanical Society, Winnemucca, Nev., from Oct. 2d to 6th.

Santa Clara Valley Agricultural, San Jose, first week in October.

Siskiyon County Agricultural Fair, Yreka, from Oct. 11th to 14th.

PARTIES desiring trees, plants, or bulbs, are referred to Ellwanger & Barry's advertisement, now appearing in our columns. Their establishment is recognized as one of the largest and most reliable in the United States.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

E. N FRESHMAN & BROS., advertising agents, 186 W. Fourth St., Cincinnati, O., are authorized to contract for advertising in this paper. Estimates furnished free. Send for a circular.

STILL ANOTHER carload of the Enterprise windmills and feed mills (so long known to be the best) received by Horton & Kennedy, Livermore, Alameda county, Cal. (See advertisement in this paper.) Remember, it is the *Perkins windmill* headquarters. Don't wait for an agent to call, or be talked into buying something else; send to Horton & Kenuedy for information or goods.

Newspaper Fileholders.

Dewey's new elastic fileholders (black walnut), size of the PRESS, *Harper's Weekly* and *Scientific American*, for 50 cts. Larger sizes, to suit any newspaper, 75 cts. By mail, postpaid, 10 cts. extra. Cash with all orders. Patent allowed. Address, DEWEY & Co., Publishers, San Francisco.

Our Poultry Department.

E. H. Oheny writes from Bodega, Sonoma county, as follows: "Your paper is worth its subscription price yearly to any farmer who keeps two dozen chickens, to get Mr. Eyre's opinion upon the value of the different breeds of fowls, the proper treatment for them, the diseases to which they are liable and the remedies. I became acquainted with Mr. Eyre through your columns, and I have no cause to regret it, for in my dealings with him I find everything as represented, and, without any disparagement for others, I can recommend him as one in whom confidence will not be displaced."

The Immigrant Bureau Re-Organized.

A Free Employment and General Information Office.

The Peoples' and Grangers' Immigrant Bureau, which accomplished so much good last year, has been re-organized under a new Board of Directors, and will continue its good work of attracting immigration and providing for the necessities of the new comers FREE OF CHARGE. Four thousand and eighty-two situations have been found for applicants since May, 1875. The Bureau expects to receive orders for all the help that may be required in the country the present season. Four hundred persons visit the office daily. Descriptions of land, maps, pamphlets, circulars, and local newspapers, should be sent to the Bureau. They will be freely distributed among inquirers. The Bureau was established by the State Grange, and being supported *entirely* by subscription NO CHARGE is made for any business transacted. The following gentlemen are on the Board of Directors for the ensuing year: Mayor A. J Bryant, Chairman; I Friedlander, C. Adolphe Low, Mark L. McDonald, Amos Adams, J. Regensburger, C. D. Sullivan, Charles Lux, George H. Eggers, J. C. Wilmerding, C. J. Cressy, John Morton, Col. A. Wason, Hon. F. A. Gibbs, F. B. Taylor, C. H. Dennison, Clans Speckles, Charles Kohler, A. W. Thompson. All communications should be addressed, J. EARL, MANAGER, IMMIGRANT BUREAU, Grangers' Building, 40 California street, San Francisco.

An Important Event

IN REAL ESTATE.

AT AUCTION,

IN NAPA CITY,

On Long Credit,

SATURDAY, SEPTEMBER 30th, 1876,

At 12 o'clock M.,

SUBDIVISION

—OF—

500 ACRES

RICH RIVER BOTTOM,

—AND—

Alluvial Table Land,

COMBINED.

25 HOMESTEAD GARDEN FARMS, RANGING FROM 15 ACRES TO 25 ACRES EACH.

One Mile from and in Full View of the City of Napa.

2 MILES OF NAVIGABLE RIVER FRONT, 1¼ MILES OF RAILROAD PASSING THROUGH IT, ONE MILE OF COUNTY ROAD FRONTING IT.

2 STEAMBOATS RUNNING ON ALTERNATE DAYS PASS THIS PROPERTY, TO AND FROM SAN FRANCISCO.

6 TRAINS OF CARS DAILY PASS THROUGH IT.

THE PROPERTY IS OFFERED ON ITS MERITS, AND FOR THE PURPOSE OF SELLING.

NO FANCY PRICES ARE ANTICIPATED.

IT IS SUPERIOR

Vegetable Land,

Strawberry Land,

and Alfalfa Land.

TITLE PERFECT.

For a view of the ground and all particulars, apply to

STERLING & THOMPSON,

Napa City, Cal.

Elastic Truss.

Reader, are you afflicted with the scourge of humanity called "Hernia?" Well then; as much as you value health and comfort, give our Elastic Truss a fair trial, and our word for it, you will never again wish to wear anything different. For simplicity of construction, durability, ease, convenience, efficacy and quickness of cure, it stands unrivaled. MAGNETIC ELASTIC TRUSS CO., 609 Sacramento Street., S. F.

A REAL CONVENIENCE.—DEWEY & Co: Please send me the RURAL PRESS. It is a real convenience and I cannot do without it. Enclosed you will find five dollars. Fraternally, B. F. E. K.
Anaheim, Cal., October 12, 1874.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

San Francisoo, Wednesday, Sept. 13th, 1876.

The week has been marked by the largest Wheat receipts of any week of the season thus far. The English markets show symptoms of furtber improvement, as will be seen below.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	Cal. Average.	Club.
Thursday	9s 5d@ 9s 8d	9s 8d@10s —
Friday	9s 5d@ 9s 8d	9s 8d@10s —
Satnrday	9s 5d@ 9s 8d	9s 8d@10s —
Monday	9s 5d@ 9s 8d	9s 8d@10s —
Tuesday	9s 6d@ 9s 9d	9s 9d@10s 1d
Wednesday	9s 6d@ 9s 9d	9s 9d@10s 1d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	10s 4d@10s 8 1	10s 8d@11s 3d
1875	10s 10d@11s — 11s	—@11s 6d
1876	9s 6d@ 9s 9d	9s 9d@10s 1d

The Foreign Review.

The telegraphed quotation from the *Mark Lane Express* of Sept. 11th contains favorable news. It says there has been more or less unsettled weather throughout the United Kingdom during the last week In the northern districts Wheat carrying nas been mucb interfered with. There were heavy rains in the south. Crops were nearly all cut and carried during the fine weather. Should the rain continue, it is feared that Barley will suffer in color and condition, as in many localities the fields are yet uncleared. All root crops have undergone great improvement. Although fears were expressed at one time that the Wheat crop would not exceed that of 1875, this opinion is not supported by the facts. Barley is well spoken of in many places, whilst Oats are almost universally disappointing. Beans and Peas have yielded fairly, particularly the latter. There seems to be some reason for believing that prices have touched the lowest point Without a very marked increase in the amonnt of business, a feeling of greater confidence has sprung up a. d a decidedly healthier tone has pervaded trade. Wheat nas realized an advance of from one to two shillings per quarter in country markets, and in London, in spite of the continued heavy supplies from abroad, an occasional advance of a shilling per quarter has also been attainable. This improvement appears to be due to the fact that millers have been holding short stocks, in anticipation of a good harvest, and now that such anticipations are not likely to be realized they are eager to supply their wants before prices evince a more decided upward movement. English Wheat is being marketed very sparingly. This shows more of a demand on foreign produce, which would doubtless have advanced in a more positive manner did not large arrivals and full granaries exercise a depressing power upon prices. Trade may find some support in the position of political affairs, but at this moment the glutted condition of the granaries checks any material advance. Maize, although still in large supply, meets with a steady demand, and, with a short crop of straw and bay, the consumption of Corn for feeding purposcs has increased enormously. The quantity of Wheat afloat is considerably smaller than it was at this time last year. The falling off is mainly due to the decrease of shipments from Atlantic ports. The reports of American and Southern Russian crops appear to be decidedly less favorable, as to yield, than advices have been of late. In the floating cargo trade, arrivals at ports of call have been small. Business has progressed steadily at late prices, while an iucreased advance has been established on white descriptions.

Figures on the European Crops.

A dispatch from New York City, dated September 11th, gives some figures on tho conditions of the European crops which certainly favor good prices for Wheat. We have no way to prove the accuracy of the estimates nor any reason to doubt them. The dispatches say:

There are indications of the revival of the Grain trade, Wheat and Flour having realized higher prices during the week, in response to more favorable cable reports from tbe European markets. The foreign crop being now about gathered, we get a better view of the results of the harvest. At the meeting of the Vienna International Corn Association, just held, reports were received from all the grain growing couutries of Europe. The percentages of Wheat, compared with good average crops, are thus stated: England five per cent. below; South of France, 24 per cent. below; North of France, good average; Mecklenburg, 20 per cent. below; Baden, 10 per cent. below; Wurtemberg, five per cent. below; Bavaria and Saxony, good average; Austria, Hungary and South and Central Russia, good average; North Russia, 70 per cent. below; Russian Poland, full average; Roumania, 25 per cent. below; Switzerland, 10 per cent. below; Sweden, Norway and Denmark, 15 per cent. below, and the Netherlands 30 per cent. below. In the Continental countries, except France and Italy, which bave full average, the crop of Rye is reported even shorter than the Wheat crop, the percentages of decrease varying from five to 40, the average decrease being not far from 18 per cent. Assuming these data to be approximately correct, they would seem to foreshadow a demand for all the surplus Cereals the United States may bave to spare, and at fair prices.

The New York Grain Market.

New York, Sept. 11th.—Sound Wheat in our market continues scarce, and in default of a ready supply of Spring, exporters are falling back upon Winter, which has sold chiefly at $1.20@$1.29, though some poor old Red in store has sold as low as $1 to $1.10 for export. It ie difficult to buy the poorest Spring now below $1.05, or from that up to $1.20 for a good article, whereas, inferior sold as low as 75@90c. Two or three weeks ago there were considerable purchases for forward delivery at about the current prices, and also upwards of 100,000 bushels of Rye to arrive for shipment to the Continent at 72@80c—the letter price for handsome State. There has also been considerable business in export grades of Flour at $4.60@6.00, with some fancy Minuesota for the English markets as high as $6. Corn and Oats are a trifle dearer, but the price of Barley is uncertain. Some purchases have been made to arrive, but particulars are unknown.

Shortage in the Minnesota Crop.

Gen. George P. Delaplaine, of Madison, Wis., has been traveling quite exteneively, in order to make careful observation as to the condition and yield of the crops. The Winona *Republican* thus sums up the General's opinions: From a careful survey of the different sections of Minnesota, Gen. Delaplaine estimates that the yield of Wheat this year will be 62 per cent. of what would be a fair crop. In some places the yield goes below one-half; in others, two-thirds; so that the estimate above given is a fair average.

Freights and Charters.

The holders of the ships are elevating their views to cover the foreign advance. The *Post* says: We have to report another week of activity in the freight market and numerous engagements. The buoyant tone of the Liverpool Wheat market has caused shippers to look for tonnage, and rates have stiffened as the demand increased. Spot charters to Liverpool direct are quoted steady at £3 for iron vessels and £2 17s 6d for wooden. At the present writing we have in port 64,886 tons of tonnage secured for Wheat and 3,712 tons for outside account. The disengaged tonnage aggregates 46,116 tons. The engagements of the week have been as follows: Ship "Garibaldi," 1,431 tons, Wheat to Liverpool, prior to arrival, £3 5s; Br ship "Loch Awe," 1,053, Wheat to Cork for orders, £3 3s; Br hark "Staghound," 1,013, Wheat to Cork for orders, prior to arrival. private; Br bark "Hawksbury," 1.120, Wheat to Cork for orders, prior to arrival, private; Br ship "Dunselaw," 1,279, Wheat to Cork for orders, prior to arrival, private; hark "Fresno," 1,245, Wheat to Cork for orders, prior to arrival, private; ship "Frolic," 1 368, Wheat to Liverpool or Havre, £2 15s; Br ship "Castle Holme," 996, Wheat to Liverpool, £3, Cork, U. K., £3 3s; ship "Springfield," 1,043, Wheat to Liverpool, prior to arrival, £3 5s; ship "Ocean King," 2,516, Wheat to Liverpool, prior to arrival, £3; Br ship "Aberystwith Castle," 1 056, Wheat to Liverpool, prior to arrival, private; Br ship "Bredalbane," 1,418, Wheat to Cork for orders, prior to arrival, private; Br ship "Mitredale," 1,231, Wheat to Liverpool, private; Br ship "Talisman," 1,199, Wheat to Cork for orders, prior to arrival, private; Ger bark "Admiral Tegetthoff," 893, Wheat to Cork for orders, prior to arrival, private; Ger bark "Emma Romer," 424, Wheat to Cork, £2 17s 6d: Br ship "Auriga," 1,571, Wheat to Cork for ordere, prior to arrival, private; Br ship "Denbighshire," 1,366, Wheat to Cork for orders, prior to arrival, private.

Eastern Wool Market.

New York, Sept 11th —The wool market has shown considerable activity during the week, speculators and manufacturers buying freely, hoth having unlimited confidence in the market of the future. Many holders positively refuse to sell at present rates, and have withdrawn their stocks from the market, believing that a still higher range of prices will prevail in the near future. Everything at present seems to confirm these anticipations, for we are just entering upon the season when the raw material is really needed. The stock at the seaboard is greatly reduced, and through the country the small supply that remains is in the hands of speculators, who have gone through and purchased, expecting an advance. Ohio X and XX fleece is quoted at 40@43c, with some holders asking as high as 45c. There is but a limited demand at these figures, but holders show no disnosition to recede from the position they have taken. The choicest lots of spring California are held at 28@30c, but the demand is confined entirely to inferior grades. The sales are 42,500 lbs Cape at 31@32c; 32,500 lbs spring California, 20@25c; 10,000 lbs old fall do, 14c; 122,000 lbs Western Texas, 15@21c; 132,000 lbs Eastern do, 22@24c; 25,000 lbs Oregon, 24@27c; 5,000 lbs Georgia, 26½c; 70,000 lbs Michigan, 34@36c; 50 000 lbs ungraded Ohio, 40c; 10,000 lbs washed Western, 35@33½c; 9,000 lbs Ohio and Michigan Delaine, 40@42c; 3,000 lbs Virginia, 25,000 lbs unwashed Western, 35,000 lbs X and XX Ohio, 47,000 lbs Michigan, 3,000 lbs do Delaine, 182 bags old X pulled, 70 do short do, 30 do lambs' do, 31 do No. 1 do, 100,000 lbs Oregon, 31,000 lbs Eastern Texas, 10,000 lbs new fall California, 132 bales Australian, 339 do washed donskoi, and 106 do unwasbed do, on private terms.

New York Hop Market.

Emmet Wells, in his circular for September 1st, reviews the New York trade, giving the following interesting facts: This issue of the *Circular* closes the fourteenth year of its publication. The Hop season of 1875-76 presented some new and varied features, the most prominent and profitable of which to the shippers has been our large export trade with England. We bave shipped to London during the year, in round numbers, 50,000 bales. This is more of a demand than anyhody in the trade supposed we would have from that source, and is much the heaviest legitimate export trade ever done in Hops in this country. In the fall and winter of 1868 69 the shipments were heavier than during the past year, but the business of that season was entirely of a different nature. Then Hops were shipped and consigoed at random, while last year very few Hops were exported except on special order from there and at stated prices. The price paid here for good shipping Hops during the past year averages about 15c ₱ lb Very few growers realized even these figures, most purchases being under 15c. The new season gives promise of a much better state of things. Contracts and purchases have already been made for a few thousand bales at 25c. This improvement over last year's opening price is based upon a partial failure of the German crop and a comparatively light crop in England. Early estimates put the new English crop at three-eighths less than last year, that of Germany one-third of last year. We will, therefore, be likely to have a call from Germany as well as from England for our Hops. Growers should remember that none but cleanly picked, bright, rich Hops will be wanted for export, and for all such a ready market will be found at good prices.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week onding at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week Aug. 23.	Week Aug. 30	Week Sept. 6.	Week Sep. 13.
Flour, quarter sacks	35,278	42,993	71,075	52,935
Wheat, centals	272,434	305,541	497,684	485,636
Barley, centals	51,156	56,938	52,170	54,196
Beans, sacks	226	319	488	2,326
Corn, centals	1,659	4,143	1,615	1,875
Oats, centals	7,403	9,494	5,096	12,162
Potatoes, sacks	22.013	22,981	15,360	19,331
Onions, sacks	1,996	2,557	1,539	1,318
Wool, bales	3,205	2,935	3,668	4,795
Hope, bales	86	172	280	446
Hay, balee	3,563	2,619	2,940	2,139

Bags—Outside dealers inform us that the Bag combination is on its last legs, and the outside dealers quote standard Wheat Bags at 11¾@12o. The combination hold for higher pricce we believe.

Barley—Brewing Barley ie selling well at quotations. There has been quite a demand for Brewing for the East. Pricee may be learned from the following sales: 20,000 ctls choice Brewiug are reported at $1 07½ @1.10; 500 sks dark Coast Feed, 90c; 1,085 do do, 92½c; 450 do inferior Bay do, 92½c; 2,400 do Coast do, 95c; 416 do Bay do, 95c; 2,000 do do, 97½c per ctl, all silver; 700 do fair Brewing, 98¾c; 800 do do, $1 per ctl, both gold; 2,000 sks cboice Bay Brewing, $1.10; 400 do good do, $1.05; 300 do fair, $1 2,000 do choice Coast do, $1.02½; 7,000 do choice at San Jose for shipmont by rail, $1; 900 sks fair Coast Feed, 92½c, silver; 500 do good Bay Brewing, $1 05, gold; 393 sks Bay Feed, 95c, silver; 1,275 do Brewing, $1.05, gold. The ship "General McClellan" hss been laid on for New York, and will take about 1,500 tone for transhipment to Stx Louis, railroads refusing to take it at less than $1.25 ₱ 100 lbs in less quantities than 100 carloads; for that nnmbor or more the rate is $1.15.

Beans—Receipts of Beans are greatly increased. Prices are nnchanged.

Corn—Corn is quiet and quotations vary considerably. We note sales: 100 sks small Bay Yellow, $1.27½: 149 do Golden Drop, $1.30 per ctl, both lots half silver; 165 sks large Yellow, $1.25 per ctl, silver; 350 sks good large Yellow, 1.25, all silver.

Dairy Produce—Butter continues its advance. The extreme price now gained per single box for the finest makes is 47½c. The usual range for choice fresh roll is 42½@15c.

Eggs—Eggs have advanced to 45c per dozen.

Feed—Ground Feeds are unchanged. Hay bas sold at the former range, an occasional lot of choice Wheat bringing the highest prices, $13@13.50. We note sales: Three small cargoes of medium grades at $8.50@10.50 per ton; 16 tons fair Oat, $11; 28 tons ordinary Volunteer, $8.50; 61 do fair Oat and Wheat, $10.50; 17 do good Wild Oat, $11; 35 tons medium Wheat, $11; 38 tons ordinary Wheat, $11 per ton.

Fruit—Fruit prices are not materially changed except for Grapes. The choicer table varieties are coming in more freely and are cheaper. Our tables give prices in full.

Hops—The receipts of Hops are incressing. There is some business being done, but dealers are a little shy on reporting prices. So far as we can learn the range has been from 18@20c, as quoted last week. We note sal s of 75 bales at 18@20c; 50 bales prime, for Australia, 20c. A possible extreme price of 22c is hinted at, but we could find no sales at that figure so far. Emmet Wells' review is given in another column.

Oats—Oats are dull and weak. The first of the new crop have been received from Oregon. We note sales of 400 sks fair Feed at $1.50, half silver; 400 sks good do, $1.60, silver: 200 sks Bay Feed, $1.60; 500 do do, $1.62½, both half silver; 120 sks choice, $1.80, half silver; 1,000 sks good Feed, $1 62½, half silver; 500 do fair do, $1.40, all silver. For a very heavy lot of bright Bay $1.75 was off red on 'Change.

Onions—Onions are plenty. Prices may be found in our tables.

Potatoes—The extreme of the market is now made by fine Cuffey's Cove at $1.05@1.07½. During the early days of the week, the price for the best of this kind was $1 10. We note sales: 700 sks choice Cuffey Cove, $1.10; 300 do do, $1.07½. Sales on the wharf for other kinds have been as follows: Half Moon Bays and Mission, 60@80c; Early Rose, 50@75c; Sweet Potatoes, 75c@$1 ₱ ctl.

Poultry—Prices are slightly reduced this week.

Provisions—The trade in cured meats is active and prices advance a little. Fresh meat is unchanged. Pork is in good demand but shows a little weakness in price.

Rye—Rye continues to be held for $1.50.

Vegetables—Vegetables have fluctuated but little during tbe week.

Wheat—There is considerable activity in the Wheat market and large amounts are coming forward. The advance in Liverpool is still employed here in advancing the views of those who hold the ships, and so shippers claim to be unable to advance their views. We note sales: 400 sks superfine, $1.25; 420 do do, $1.32½; 175 do do, $1.40; 2,250 do Shipping, $1.47½; 200 ctls do $1.50; 275 sks Milling, $1.52½; 2,000 sks good Shipping $1.50; 300 do good Milling, $1.52½; 250 do fair do, $1.47½; 400 do superfine Milling, $1.35; 420 do do, $1 32½; 400 do do, $1 25; 10,000 ctls choice Shipping at $1.52½; 1,180 ctls superfine. $1.25; 600 sks do, $1.25@1.30; 240 ctls do, $1.35; 400 do good Sonora, $1.45; 1,500 sks Shipping, $1.52½; 2,000 sks good Shipping, $1.52½; 400 do good Sonora, $1.45; 1,200 do superfine Milling, $1.25; 450 do do, $1.25@1.30; 300 sks good Milling, $1.52½; 150 do choice Sonora, $1.50; 600 do superfine Milling, $1.25 ₱ ctl.

Wool—The receipts of Wool are largely increased Prices continue within the range quoted last week. We note sales of 215,000 lbs Fall at 11@15c, according to quality.

FRUITS AND VEGETABLES.

[WHOLESALE.]

Wednesday m., Sept. 13, 1876.

FRUIT MARKET.		DRIED FRUIT.	
Oranges Mex. ₱ M	— —@— —	Apples, ₱ lb	6 @ 8
Tahiti, do	30 00@35 00	Pears, ₱ lb	—@ 10
Cal. do	— —@— —	Peaches, ₱ lb	7 @ 7½
Limes, Mexican, ₱ M	10 00@12 50	Apricots, ₱ lb	10 @12½
Malaga Lemons, ₱ bx	—@— —	Plums, ₱ lb	5 @ 6
Cal. ₱ 100	2 00@ 2 50	Pitted, do ₱ lb	13 @15
do Sicily ₱ b'x	1.15 00@— —	Raisins, imported	3 @3 75
Bananas, ₱ bnch	2 00@ 2 00	Cal. Raisins	5 @ 10
Cocoanuts, ₱ 100	6 00@ 7 00	Black Figs, ₱ lb	5 @10
Pineapples, ₱ dz.	— @ —	Whits, do	12½@15
Apples, ₱ box	50 @1 00	Prunes	12½@17
do Choice	— @1 10	Citron	28 @ 30
Apricots, lb	— @ —	Zante Currants	9 @ 10
Blackberries cse	— @ —	**VEGETABLES.**	
Cherries ₱ lb	— @ —	Asparagus ₱ lb	— @10
Plums lb	2 @ 4	Beets ₱ ctl	—@75
Prunes lb	2 @ 4	Cabbage, ₱ 100 lbs	50@ 60
Figs	3 @ 4	Carrots, ₱ 100 lbs	50@ 62½
Gooscherries	— @ —	Cauliflower, doz	50@ 62½
Huckleberries	— @ —	Celery, doz	50 @—
Strawber's ₱ cs.	50 @7 00	Garlic, ₱ lb	2 @ 2½
Pomgranates	— @ —	Green Peas ₱ lb	— @ 2
Raspberries	— @ —	Green Corn ₱ doz	5 @15
Currants, ₱ cs	— @ —	Sqnr'Squash ₱ box	40 @50
Cranberries bbl	13 00 @14 00	Marro'fat Sqsh, tn	10 00 @—
Peaones, ₱ box	1 25@2 10	Artichokes ₱ doz	— @—
Pears, ₱ bx	50 @ 75	String Beans, ₱ lb	2 @ 2½
do Choice	1 00 @2 00	Lima Beans	2½ @ 3
Crab apples, ₱ lb	2 @ 3	Parsnips	— @—
Grape ₱ box	25@ 50	Shell Beans	1½@ 2
Rose of Peru	30@ 60	Peppers, green, bx.	40 @60
Muscat	40@ 75	Okra	5 @ 6
Sweetwater	40@ 60	Quonmbers, ₱ box	—@ 50
Black Hamburg	30@ 60	Tomatoes, box	20@ 40
Tokay	5 @ 60	Egg Plant, box	1 25@1 50
Morocco	1 00@1 50	Rhuharb box	—@—
Quinces	1 00@ —	Lettuce, doz	10 @ —
		Turnips, pr otl	50@ 62½
		Watermelons doz	1 00@1 25
		Canteloupes do	1 25@1 75

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by Sutro & Co.]

San Francisoo, Sept. 13, 3 p. m.

Legal Tenders in S. F., 11 a. m., 91 to 91½. Silver 5½@5¾.

Gold in N. Y., 110

Gold Bars, 880 to 890. Silver Bars, 11@21 per cent. discount.

Exchange on N.Y., 50-100 per cent.premium for gold; on London bankers, 49; Commercial, 49¼; Paris, five francs per dollar; Mexioan dollars, 5 per cent. discount.

London — Consols, 96⅛; Bonds, 102⅝

Quicksilver in S. F., by the flask, per lb. 45c

DOMESTIC PRODUCE.

[WHOLESALE.]

Wednesday m., Sept. 13, 1876.

BEANS.		Pecanuts	17 @ 18
Bayo, ₱ ctl	4 00@ —	Peanuts per lb	8 @ 9
Butter	1 90@2 25	Filberts	15 @ 16
Pea	1 92½@ —	**ONIONS.**	
Pink	2 50@3 00	Union City ctl	— @—
Sm'l white	1 60@1 90	Stockton	50 @— 75
Lima	1 90 @2 00	New Red	50 @— —
BROOM CORN.		Silver Skins	50 @— 60
Common, ₱ lb	2 @ 3	**POTATOES.**	
Choice, do	4 @ 5	Petaluma, ₱ ctl	— @ —
COTTON.		Salt Lake	— @ —
Cotton, ₱ lb	15 @ 18	Humboldt	— @ —
DAIRY PRODUCE, ETC.		Half Moon bay	80 @ 85
BUTTER.		Cuffey Cove	1 07½@ —
Cal. Fresh Roll per lb	42½@ 45	Early Rose new	50 @ 65
Point Reyes	45 @ 47½	Sweet	1 00 @ —
Pickls Roll	32½@ 35	**POULTRY & GAME.**	
Firkin	25 @ 30	Heos per dz	7 00 @8 50
W'st'n Reserve	16 @ 25	Roosters	5 50 @6 50
New York	— @ —	Broilers	3 00 @4 50
CHEESE.		Ducks, tame, dz	7 00 @8 50
Cheese, Cal., lb	10 @ 15	do Muscovy	8 00 @9 00
do Old	— @ —	do Canvass	— @8 00
Eastern	12½ @ 15	Geese, per pair	2 00 @2 50
EGGS.		Wild Gray dz	3 00 @4 00
Cal. fresh ₱ doz	40 @ 45	White	1 50 @2 00
Ducks'	40 @ —	Turkeys, Live, lb	15 @ 16
Oregon	37½ @ —	do Dressed	20 @ 22
Eastern	21 @ —	Quail, per doz	— @ —
FEED.		Snipe, Eng., doz	— @— —
Bran, per ton	17 00 @17 50	Doves, per dozen	50 @ 57
Corn Meal	28 00 @— —	Rabbits	1 00 @1 00
Hay	7 00 @13 00	Hare, per doz	1 50 @2 10
Middlings	24 00 @— —	**PROVISIONS.**	
Oil cake meal	— — @33 50	Cal. Bacon, L't, lb	16 @ 17
Straw, ₱ bale	55 @ 60	do Medium	15½@ 16
FLOUR.		do Heavy	— @ 15½
Extra ₱ bbl	4 50 @5 00	Lard	14 @ 16½
Superfine	4 00 @4 25	Cal. Smoked Beef	12 @ 15
Graham, ₱ bbl	4 75 @— —	Eastern do	— @ —
FRESH MEAT.		East'rn Shonld's	— @ 12
Beef 1st quality lb	6 @ 7½	Hams, Cal	15 @ 15½
Second do	5 @ 5¾	do Armour	— @ 17
Third do	3½@ 4	do Worster's	19 @ 19½
Spring Lamb	5½@ 6	do Dupee's	19 @ 19½
Mutton	3½@ 4	do Davis Bros'	19 @ 19½
Pork, undress'd	6 @ 6¾	**SEEDS.**	
do, dressed	9 @ 9¼	Alfalfa, Chile lb	8 @ 10
Veal	5½@ 6	do California	11 @ 12
Milk Calves	5½@ 7	Canary	9 @ 10
GRAIN, ETC.		Clover Red	— @ 22
Barley, feed ctl	80 @ 1 00	do White	50 @ 55
do brewing	1 00 @ 1 10	Cotton	6 @ 10
Chevalier	1 25 @ 1 30	Flaxseed	— @ 3½
Corn, White	1 20 @ 1 25	Hemp	12½@ —
do Yellow	1 20 @ 1 30	Italian Rye Grass	25 @ 30
Oats	1 40 @ 1 60	Pereonial do	20 @ 30
Milling	1 80 @ 1 90	Millet	10 @ 12
Rye	1 35 @ 1 40	Mustard, white	5 @ 6
Wheat shipping	1 50 @1 52½	do, Brown	3 @ 3½
do milling	1 55 @1 60	Rape	5 @ 8
HIDES.		Ky. Blue Grass	30 @ —
Hides, dry	13 @ 13¾	do 2d quality	29 @ —
do wet salted	5½@ 7	Sweet V Grass	— @ 75
HONEY, ETC.		Orchard do	30 @ 35
Beeswax, per lb	25 @ 30	Red Top do	— @ 25
Honey in comb	10 @ 12½	Hungarian do	8 @ 12
do Strained	6 @ 8	Lawn do	50 @ —
HOPS.		Mesquit do	20 @ 25
New crop	18 @ 20	Timothy	1? @ 13
NUTS—Jobbing.		**TALLOW.**	
Alm'ds sh'd sh'l lb	8 @ 10	Crude, ₱ lb	6 @ 6¼
do, soft sh'l	18 @ 20	Refined	8¾@ 9
Brazil do	14 @ 16	**WOOL, ETC.**	
Cal. Walnuts	12 @ 14	FALL—	
Chile Walnuts	11 @ 12½	Free	11 @ 13
		Choice	13 @ 15
		Sntry	9 @ 11
		Oregon	17 @ 23

GENERAL MERCHANDISE.

WHOLESALE.]

Wednesday m., Sept. 13, 1876.

BAGS.		Sperm, crude	1 60 @1 65
Eng. Stand Wht	11¾@12	do bleached	1 90 @2 25
Neville & Co's	— @—	Coast Whales	47½@ 50
Hand Sewed	11¾@12	Polar, refined	— @ 50
24x36	— @—	Lard	— @1 20
24x40	— @—	Oleophine	— @ 37
Machine do 24x40	— @15½	Devoe's Bril't	38 @ 39
" " 23x40	14½ @—	Long Island	— @ 25
" " 22x40	13 @—	Eureka	26 @ 27
" " 22x36	11½@12	Devoe's Petro'm	— @ 42½
Flour Sacks ⅛	9 @11	Barrel kerosone	23 @ 25
" " ¼	6 @ 7	Olive	— @3 50
" " ⅛	4½@ 5	Downer Kerose'e	— @ 37½
Hessian 60-in	12¼@14½	Elaine	— @ 42
do 45-in	10 @—	Gas Light Oil	23 @ 25
do 40-in	8½@—	**PAINTS.**	
Wool Sacks, 3½ lbs.	45 @50	Pure White Lead	9¾ @10¼
do 4	50 @52½	Whiting	— @ 1¾
Stand. Gunnies	11½@12	Putty	4 @ 5
do single seam do	— @—	Chalk	— @ 1½
Bean Bags	7 @ 8	Paris White	— @ 2½
CANNED GOODS.		Ochre	— @ 3½
Asst'd Pie Fruits in 2½ lb cans	2 75 @ 3 00	Venetian Red	— @ 3½
do Table do	3 75 @ 4 25	Red Lead	10 @ 11
Jams & Jellies	4 25 @—	Litharge	10 @ 11
Pickles ½ gl	— @ 3 50	Eng. Vermillion	—@1 25
Sardines, qr boxl	65 @ 1 90	Averill Chemical Paint, per gal.	
do hf boxes	3 00 @— —	White & tints	2 00 @2 40
COAL—Jobbing.		Green, Blue & Ch Yellow	3 00 @3 50
Australian, ₱ ton	8 75 @ 9 00	Light Red	3 00 @3 50
Coos Bay	— — @ 9 00	Metallic Roof	1 30 @1 60
Bellingham Bay	— — @ 9 00	**RICE.**	
Seattle	— — @ 9 00	China No. 1	5¼@ 5½
Cumberl'd	—14 00 @16 00	Hawaiian, ₱ lb	7½@ 8
Mt. Diablo	5 75 @7 75	Carolina, ₱ lb	10 @
Lehigh	— — @22 00	**SALT.**	
Liverpool	8 50 @10 00	Cal. Bay, per ton	10 00@14 00
West Hartley	— — @14 00	do Common	5 00@ 7 00
Scotch	9 00 @10 00	Carmen Island	12 00@15 00
Scranton	13 00 @16 00	Liverpool fine	13 50@14 00
Vancouver's Isl	10 50 @12 00	**SOAP.**	
Charcoal, ₱ sk	75 @ —	Castile ₱ lb	10 @ 10½
Coke, ₱ bbl	— @ 60	Common brands	4½@ 6
COFFEE.		Fancy do	7 @ 8
Sandwich Island	— @ 21½	**CANDLES.**	
Costa Rica per lb	20½@ 21	Grant's	16 @ 16½
Guatemala	— @ 20	Mitchell's	18 @ 20
Java	— @ 25	**SPICES.**	
Manilla	— @ 19	Cloves ₱ lb	45 @ 47½
Groud in ce	25 @ —	Cassia	23½@ 26½
Chicory	27 @ —	Citron	28 @ 30
FISH.		Nutmeg	95 @ 97½
Sac. Dry Cod, new	5½@ 6½	White Pepper	14½@ 17½
cases	6 @ 7½	Pimento	16 @ 17½
do boneless	8½@ 10	Gr'nd Allsp'ce dz	@1 12
Eastern Cod	8 @ 9½	do Cassia do	@1 50
Salmon in bbls	6 50 @7 25	do Cloves do	@1 50
do ½ bbls	3 75 @4 00	do Mustard do	@1 20
do 2lb cans	2 40 @— —	do Gingor do	@1 00
do 1lb cans	1 70 @— —	do Pepper do	@1 00
do Col. R. ½lb	4 25 @4 50	do Mace do	@2 00
Pick. Cod, bbls	2 00 @— —	Bowen's Pure Ground ₱ lb	— @ 50
do ½ bbls	1 00 @— —	**SUGAR, ETC.**	
Mack'l. No.1, ½ bls	11 00 @— —	Cal. Cube per lb	— @ 12¾
" Extra	— @12 00	Circle A crushed	— @ 12
" in kits	1 90 @2 25	Powdered	— @ 12¼
" Ex mess	3 50 @4 00	Fine crushed	— @ 12
" Ex mess, ½ bs	—@12 00	Granulated	— @ 11⅝
Pio'd Herr'g, bx	3 00 @ 3 50	Golden C	— @ 10¾
Bos. Sm'k'd Her'g	40 @ 50	Hawaiian	10 @ 11
LIME, ETC.		Cal. Syrup in kgs	— @ 62½
Lime, S'ta Cruz, ₱ bbl	2 00@ 2 25	Hawaiian Molasses	25 @ 27½
Cement, Rosendale, do	2 75@ 3 50	**TEA.**	
do Portland do	4 75@ 5 50	Oolong, Canton	19 @ 25
Plaster, Golden Gate Mills	3 00@ 3 25	do Amoy	28 @ 50
Land Plaster, ₱ ton	10 00@12 50	do Formosa	40 @ 80
MISCELLANEOUS.		Imperial, Canton	25 @ 40
Putty	@ 7½	do Pingsuey	45 @ 80
NAILS.		do Moyune	60 @1 00
Assorted size, keg	3 75 @4 00	Gnnpo'der, Cant	75 @1 00
OILS.		do Pingsuey	50 @ 90
Pacific Glne Co Neat F't No. 1.1 00	@ 90	do Moyuno	65 @1 25
Pure	— @—	Ymg Hy., Canton	28 @ 40
Castor Oil, No. 1	— @ 95	do Pingsuey	40 @ 70
Baker's A A	— @1 15	do Moyune	65 @ 85
Cocoanut	— @ 60	Japan, ½ chests, hulk	30 @ 75
Olive Plagniol	5 50 @5 75	Japan, lacquered hxs, 4½ and 5 lbs	45 @ 67
do Possel	4 75 @5 00	Japan do, 3 lb hxs	45 @ 90
Palm lb	9 @—	do pl'n hx, 4½ lb	35 @ 65
Linseed, raw	— @ 62½	do ½ & 1 lb papor	30 @ 55
do holled	— @ 67½	**TURPENTINE.**	
China nut in ce	65 @ —	Eastern	51½@55

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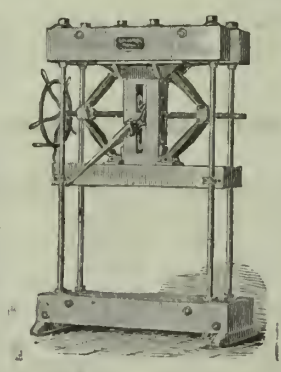
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**** This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco.

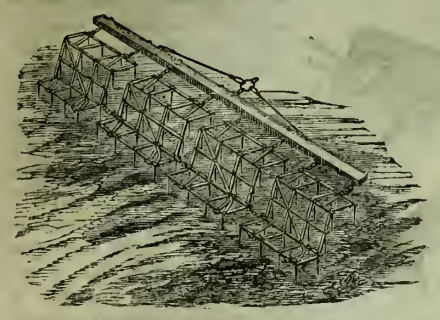
To All Interested in the Production of CALIFORNIA RAISINS.

We are now in communication with reliable parties who have had 20 years' experience in the business in Spain, whereby we can furnish any information with regard to curing, packing, etc., gratis. We have perfected arrangements by which we can furnish cuttings of the famous Malaga Raisin Grapes direct.

FEUSIER & SPAFFORD,
310 and 312 Clay Street, San Francisco.

Agricultural Articles.

IRON SECTIONAL HARROW.



This Harrow was Awarded the First Premium at the California State Fair in 1875.

The undersigned, having purchased the patent right of this Harrow for California, are now manufacturing them in Roseville, Placer County, and would call the attention of Farmers to the superior merits of this Harrow over all others now in use.

As its name indicates, it is made in sections of about three feet in width, each section having four bars, in which the teeth are inserted, and by connecting the sections with links, the Harrow is formed.

Should a Farmer require a Harrow upon his farm to do all kinds of work, he should purchase six sections, which would be suitable for four horses, and would cut 18 feet in width; by disconnecting two sections he will have a two or three-horse Harrow, cutting about 13 feet. One section alone is complete in itself, and suitable for garden work, with one horse. The Harrows are made of the best quality of iron, and with teeth warranted to be steel.

We give a few of the many reasons why we claim superiority for these Harrows over all others in use on this Coast:

First—By the lightness of draft, taking into consideration the amount of work it does.

Second—By working uneven or rolling ground just as well and as evenly as if it was entirely level.

Third—They are made of Iron and Steel, and therefore are not affected at all by sun or rain, or by heat and cold; they are always tight, and ready for use; they are also durable. A farmer purchasing one has a Harrow that will last a life time.

Fourth—The teeth being fastened with a nut and screw into the cross bars, should one break, another can be inserted in a moment. We are making three sizes, all being the same in width, but different in depth and weight only.

Prices, from $12.50 *to* $15.00 *per Section.*

All orders sent to

BREWSTER & CO.,
Roseville, Placer Co ,

Will be promptly attended to, and satisfaction guaranteed in all cases.

CAUTION.

It has come to our notice that certain parties are now making this Harrow in this State, and that several of them have been sent here from the East. Now this is to *caution* all persons against making, selling or buying them, so made and offered for sale, as we shall enforce our rights in relation to the matter, and would call the attention of all persons infringing upon our patent, to the *law* in regard to it.

BREWSTER & CO.,

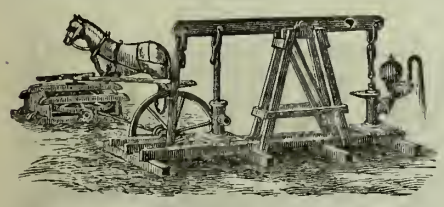
Roseville, July 15th, 1876.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power



[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,

Cor. J and 10th Sts., Sacramento.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.



Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.

The Famous "Enterprise"

(PERKINS' PATENT)

Self-Regulating, Farm Pumping, Railroad and Power



WINDMILLS,

Pumps & Fixtures,

Have been in use on the Pacific Coast in the towns and farming districts for over four years, and wherever they have been sold (and there are thousands of them ont) they are doing their work as well as when put up. A careful perusal of our Circulars gives a fair representation of them and shows their simplicity.

We are prepared to fill orders for all sizes, from a PUMPING MILL to a 24-foot POWER MILL for running Machinery, as well as doing the pumping.

The "ENTERPRISE" FEED MILL

(PACKERS' PATENT),

For Grinding Barley, Etc.,



Equally as commendable, has now been tested to entire satisfaction of all, and meets the demand for an article of that kind that has not been supplied on the Pacific Coast heretofore.

CHEAP and RELIABLE.

All Goods Warranted.

Send for Illustrated Circulars and Information to

HORTON & KENNEDY.

Managers for California and Pacific Coast,

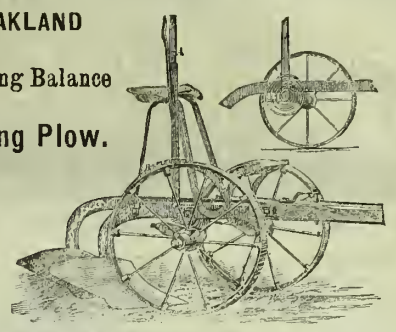
General Office and Supplies,

LIVERMORE, ALAMEDA COUNTY, CAL.

OAKLAND

Spring Balance

Gang Plow.



Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal Established in 1858. Send for Circular and Pricelist

SANBORN & BYRNES,

STAIR BUILDERS,



Mechanics' Mills, Mission Street,

Bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of Stair Material furnished to order. Wood and Ivory Turners. Billiard Balls and Ten Pins, Fancy Newels and Balusters.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

Stockton, Cal.

Investigate!

Dispense with Metallic Trusses! Do away with iron hoops and steel springs! Strange yet true! Some men will rather suffer than use remedies within their reach. Lumbago, weakness, kidney disease and other equally distressing complaints are not unfrequently produced by this unnatural mode of treating Rupture. Get an Elastic Truss and save yourself suffering!

MAGNETIC ELASTIC TRUSS CO.,
609 Sacramento Street, S. F.

ASK YOUR GROCER OR OIL DEALER FOR

"ELAINE"

THE FAMILY SAFE GUARD OIL

MERCHANT MILL FOR SALE,

And 150 Acres Land. Turbine Wheel, 190 feet fall, 35 barrels per day. Good Home Market and Never Failing Water.

S. A. POLLARD,
San Luis Obispo.

GRANGERS' BUSINESS ASSOCIATION,

Incorporated Feb. 10th, 1875. Capital Stock, $1,000,000.

OFFICERS and DIRECTORS:

DANIEL INMAN, (PRESIDENT). AMOS ADAMS, (SECRETARY). THOS. FLINT.
R. C HAILE, (VICE PRESIDENT). THOS. UPTON. G. P. KELLOGG.
JOHN LEWELLING, (TREASURER). I. C. STEELE. W. L. OVERHISER.
O. HUBBELL. D. CAMPBELL.

SHIPPING and COMMISSION HOUSE,

Grangers' Building, - - - - 106 Davis Street, S. F.

Consignments of Grain, Wool, Dairy Products, Fruit, Vegetables, and other Produce solicited, and advances made on the same. Orders for Grain and Wool Sacks, Produce, Merchandise, Farm Implements, Wagons, Etc., solicited and promptly attended to.

We do a strictly Commission Business, and place our rates of Commission upon a fair legitimate basis that will enable the country at large to transact business through us to their entire satisfaction.

Consignments to be marked Grangers' Business Association, San Francisco. Stencils for marking will be furnished free on application.

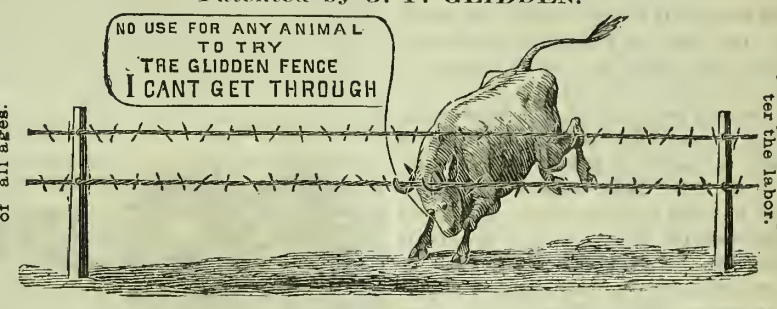
DANIEL INMAN, Manager.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



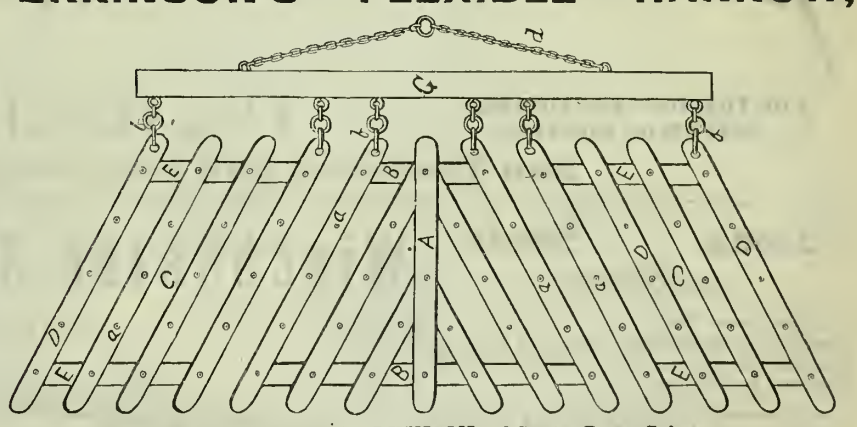
About one-half the cost of any other good fence; and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8 Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,

General Agents for the Coast K and 10th Streets, Sacramento.

PERKINSON'S FLEXIBLE HARROW,



Invented by J. E. PERKINSON, of Santa Rosa, Cal.

Merits are claimed for this Harrow over all others in use. It gives good satisfaction in its work, and should be thoroughly tested by farmers. It has the build of durability. It can be made for $35 on this Coast.

This Harrow is made in three sections, which are connected to a draft bar by links and clevises. The bars are about four feet six inches long, and there are four bars in each of the two outside sections. The center section is filled up as seen in the engraving. The Harrow is made of good Eastern oak, with 63 steel teeth, and covers about 13 feet width of swath.

Reasons for the Superiority of this Harrow.

First—By the lightness of the draft, two horses, of ten hundred each, can draw it on loamy soil with ease.

Second—It is the best attachment in use. The draft bar is perfect. By using an equalizing chain to draw by, it keeps the Harrow in its right position and makes it easy to turn at a corner, as no wide spread Harrow can be turned with ease without those equalizers.

Third—Where other patentees have failed in setting the teeth so that each and every tooth will make a separate and distinct mark, this Harrow will do it on trial.

The Harrow is manufactured by the inventor, J. E. PERKINSON, at Santa Rosa, Cal., to whom applications for rights can be made.

HEALD'S BUSINESS COLLEGE,

No. 24 Post Street,
SAN FRANCISCO, CAL.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

LADIES' DEPARTMENT.—Ladies will be admitted for instruction in all the Departments of the College.

TELEGRAPHIC DEPARTMENT.—In this Department young men and young ladies are practically and thoroughly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars, E. P. HEALD,
President Business College, San Francisco, Cal.

ANGELL'S CHARCOAL DENTAL SOAP

for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco

H. K. CUMMINGS. 1858. H. H. HALSTON, 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer

FRED WOLFF,

CARPENTER and BUILDER.

Particular Attention paid to

Country Work.

Address, No. 433 FULTON STREET,

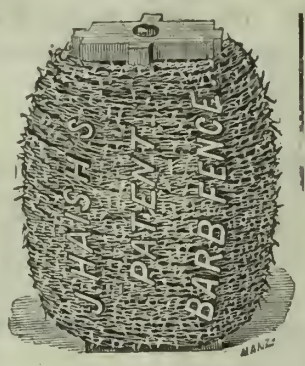
SAN FRANCISCO.

FARMERS write for your paper.

HAISH'S ENAMELED "S" BARBED WIRE FENCE.

Many tons made and sold gives a guarantee to warrant Haish's "S" Barb Fence. If it don't do what is recommended, you can return it to the agent and your money will be refunded. This fence is now among over 5,000 good farmers, and used in ten different States—shipped in car lots.

Its own merits recommend it to the consideration of those desirous of putting up a durable, substantial and cheap fence. A careful and thorough examination will convince the most skeptical that it is stock proof. Wherever introduced it has taken preference over all other kinds, possessing all the good qualities of the osage, without any liability of being winter-killed. By the new process of enameling the wire, it is effectually protected from the atmosphere, rendered impervious to water, and lasts long after plain wire is rusted and worn out; also furnish the cceapest and best Wire Stretcher in use. Staples constantly on hand.



Spooled for Shipment.

TO FARMERS

AND

STOCK GROWERS

Peace and rest at last through the use of the

"S" ENAMELED PATENT

BARB WIRE FENCE.


WIRE TIGHTENER.

The Haish Fence is substantial, as strong winds cannot blow it down, or heavy falls of snow cannot break it. Cattle, horses, sheep, etc., after the first trial of its efficiency do not make the second attempt. Set posts twenty to thirty feet apart, and tighten the same as any wire fence.

It is the cheapest Barb Fence made, and the danger from fire is greatly lessened—it cannot burn. Two wires are guaranteed a safeguard and protection from the encroachments of stock. One wire at the top of a board fence will effectually prevent stock from breaking the boards. It saves the handling and carrying of many thousands of feet of lumber. One load of the "S" Barb fence will enclose a farm of 160 acres with two wires. The above cut represents the wire coiled on a spool ready for shipment. By running a rod through the ends of the spool, two men can unroll and put up many rods in an hour. Only a few days' labor serves to enclose a large tract of land from the depredations of stock.

The "S" Barbed Fence Wire is the only safe Barbed Wire to use; all other kinds of barbs are dangerous to stock. Many fine animals are being ruined almost every day by using other styles of barbs. They act like a nail in a post,

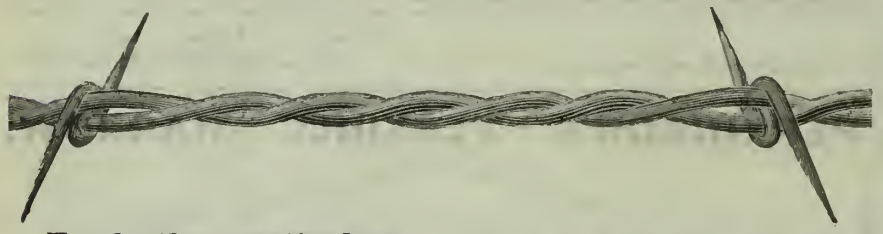

Forbidden fruit. Can't get through Haish's Fence. | Pana uses the Haish Barb Fence. No danger for players here, Just look on the other side. | I use the "S" Barb. No more dog fence for me. I have trained my dog for sporting.

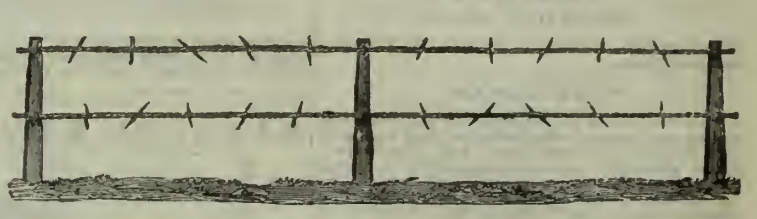
while the "S" Barb is so placed on the two wires that it will prick the animal enough to accomplish what will be required without injuring them. Farmers shou'd be careful to put up no wire that will injure their stock. The "S" Barb is considered safe by all who have used it here or in the East. The great success of this "S" Barb has caused many others to imitate it, putting on a barb that will look like it, but avoid the patents, and also avoid the best point in the Barbed Fence. The wire is not weakened by close twisting; the strain is equal on both wires. Every farmer should be careful and get the best. We are the Sole Agents on this coast.

Parties wanting the "S" Barb Fence should be particular, as other styles of Barbed Wire are being offered as the "S" Barb.

Costs 30 cents per rod or 27 cents per pound. Three tighteners to the mile, cost 15 cents each. 75 staples to the pound cost 15 cents per pound

LIBERAL DISCOUNT TO LARGE BUYERS.





For further particulars call on or address

BAKER & HAMILTON,

San Francisco and Sacramento, General Agents for the Pacific Coast.

Seeds. Seeds.

IMPORTED.

Crosby's Extra Early, Marblehead Mammoth, Stowell's Evergreen, Mexican Sweet, New — Sweet Corn.

Early Canada, Early Dutton — Yellow Flint Corn.

Long Red Mangel Wurzel, Yellow Globe, White Sugar — Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,

No. 317 Washington Street,

v8-tf SAN FRANCISCO.

TREES

The Largest and most Complete Stock of Fruit and Ornamental Trees in the U. S. Priced Catalogues sent as follows: No. 1, Fruits with colored plate, 15 cts.; plain, 10 cts. No. 2 Ornamental Trees, etc., with plate, 25 cts. No. 3, Greenhouse; No. 4, Wholesale, and No. 5, List of New Roses, Free. Address,

ELLWANGER & BARRY, *Rochester, N. Y.*

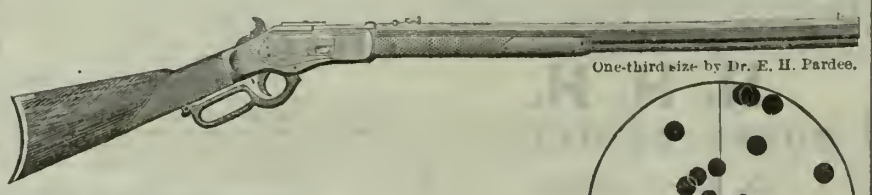
Much Obliged, Etc.

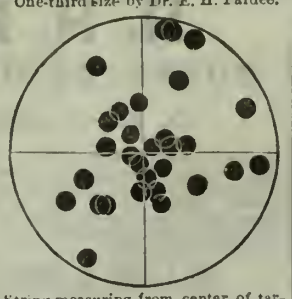
PORTLAND, OGN., June 26th, 1876.

DEWEY & Co., Patent Solicitors, S. F.—*Gents:* I am much obliged to you for courtesy shown me, and am well pleased with the manner in which you have done my business, and assure you, will cheerfully recommend you to my acquaintances needing such services. Hope to have a case again before long, of my own. I have been an inventor all my life, but let others reap the benefit, or had work stolen from me. Please have the extra copies of my patent, etc., mailed to me direct, and oblige Yours truly, J. H. WOODRUM.

Winchester Repeating Rifle.

MODEL 1873.


One-third size by Dr. E. H. Pardee.


String measuring from center of target to center of each shot, 32¾ inches. Average distance of each shot, 1 9-100 inches.

The Strength of all Its Parts,

The Simplicity of Its Construction,

The Rapidity of Its Fire,

The Power and Accuracy of Its Discharge,

The Impossibility of Accident in Loading,

Commends it to the attention of all who use a Rifle, either for Hunting, Defense, or Target Shooting.

The San Francisco Agency is now fully supplied with all the various kinds and styles of Arms manufactured by the Winchester Repeating Arms Company, to wit:

Round barrels, plain and set, 24 inch—blued. Octagon barrel, plain, 24 inch—blued. Octagon barrel, set, 24, 26, 28, 30 inch—blued. Octagon barrel, set extra heavy, 24, 26, 28, 30 inch—blued. Octagon barrel, set 24, 26, 28, 30—extra finished case hardened and check stocks. Octagon barrel, set extra heavy, 24, 26, 28, 30 inch—extra finished—C. H. & C. S. Octagon barrel, set, 24, 26, 28, 30 inch. Beautifully finished. C. H. and C. S. Known as "One of One Thousand." Octagon barrel, set, gold, silver and nickel plated and engraved. Carbines blued, also gold, silver and nickel plated. Military rifle muskets, model 1873. Rifles, muskets and carbines, model 1866. Reloading Tools, Primers and Parts of Arms.

A heavy stock of Cartridges Manufactured by the W. R. A. Co., for all kinds of Rifles and Pistols, constantly on hand and warranted the best in the market.

JOHN SKINKER, No. 108 Battery Street, San Francisco,

SOLE AGENT FOR THE PACIFIC COAST.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in



FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞Trade Price List on application.

**My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,

419 and 421 Sansome Street, S. F.



The Autumn No. of Vick's Floral Guide. Containing descriptions of Hyacinths, Tulips, Lilies and all Bulbs and Seeds for Fall Planting in the Garden, and for Winter Flowers in the House—just published and sent free to all. Address

JAMES VICK, Rochester, N. Y.

Dewey & Co. {224 Sansome St} **Patent Agt's.**

PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, SEPTEMBER 23, 1876. [Number 13.

The Damage by Frost.

We have formerly urged the advantage of protection against frost and recorded practical success with the employment of smoke clouds. We read that in some of our mountain counties and in Nevada the frost has already nipped garden crops. In this connection we print the following important facts in reference to the surface temperature of the earth, and the effect of shelter, which Dr. Barham communicates to the Royal institute of Cornwall, England. He says that the very considerable difference between the lowest temperature, as indicated by the self-registering thermometer placed within a thermometer screen, and that shown by a similar instrument exposed on the grass and radiating freely into space, is an illustration of the influence of shelter. The common estimate of the greatest cold of night is derived from the record of the thermometer screened from radiation. This is what passes current as the minimum temperature, and that not only among the public, but also generally with those who pay a good deal of attention to meteorology. Yet when the sky is clear, the temperature of the grass, and that to which vegetables, men, and animals out of doors are exposed, will be from five to ten degrees lower, and sometimes more; and it is just these additional degrees of cold that when an ordinarily sheltered thermometer indicates a pretty sharp frost, destroy tender plants and often more or less seriously affect the health of the delicate, the old, and the very young. According to the records of Captain Liddell the radiating thermometer was, during 1872 and 1873, on 25 occasions, from 10 degrees to 13 degrees colder than the sheltered thermometer. Most of these cases occurred during April, July, and August. It is found that garden loam has the power of receiving and retaining heat superior to that of any other naked soil. The temperature of peat is nearly equal to that of garden loam although it is wet and cold to the sense of touch. A covering defends the naked soil from these extreme effects of radiation, no matter whether the covering be a natural one of grass, or an artificial one, such as screens of muslin, straw matting, clouds of smoke, or mist. The beneficial effect of a covering of muslin is not quite equal to that of straw matting, but the amount of protective influence of so slight a material is worthy of notice, amounting on the average to nearly one and one-half degrees, and in some cases to three degrees. It is said, as a general result, that in the climate of Cornwall the soil covered with vegetation will be from eight to ten degrees warmer in sharp frosts if screened from the sky by straw matting or other moderately thick materials spread over three or four feet from the ground.

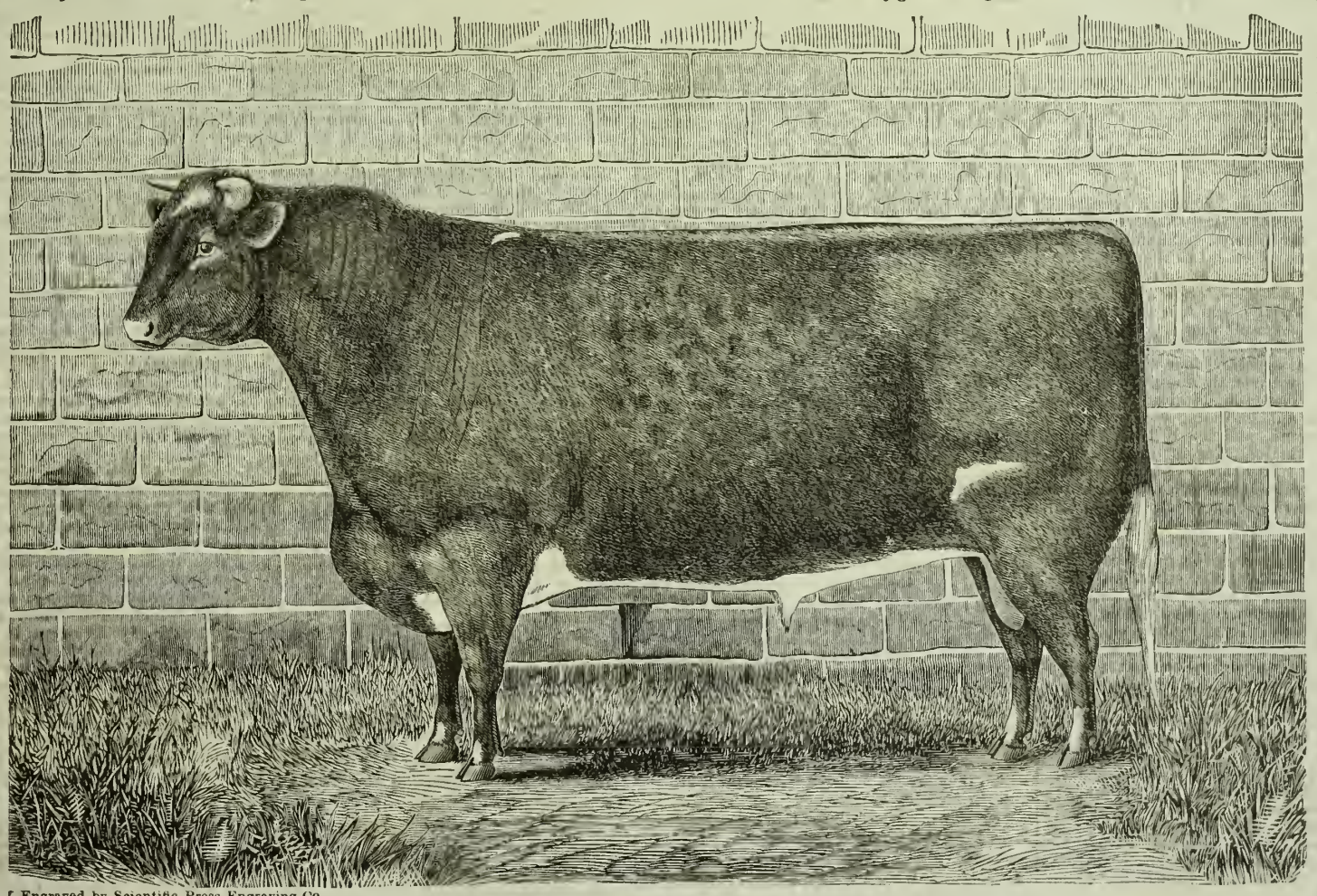
"Sonoma."

The subject of our illustration this week is the Short Horn bull "Sonoma," of the Cotate ranch herd of thoroughbreds in Sonoma county, and the property of the estate of Thomas S. Page. In color, form and pride of bearing "Sonoma" is one of the best types of the class of which he is a representative, and of a breed which year by year gains in popularity. He was calved in 1873 and in color is a deep dapple red, with a few small white spots in happy contrast. His dam, "Caroline Airdrie," figured prominently as a prize winner in the fairs throughout the West up to the time of her purchase by her present owners, when she was brought to this State. His sire, "Red Duke," was a fine and valuable bull then standing at the head of J. H. Kissenger's herd, one of the best and most favorably known breeders in Missouri. An offer of $1,000 was made for "Sonoma" when but ten months of age, but was refused, as his owners required his services for home use. The promising indications that he gave as a calf have been more than fulfilled in his prime, having already proved his excellent qualities as a breeder. Of the 25 grade bull calves yearly reserved by the Cotate ranch for sale, all have already been disposed of. The latest sale was of a number of grade bull calves, less than six months of age, for $20 each. These calves went to Nevada. What stronger argument for grading up stock than a sale of grade bull calves at $20 each?

The following is "Sonoma's" pedigree as officially laid down:

SONOMA.—4,379, S. H. R.; 18,356, A. H. B. Red, with white marks, calved February 5th, 1873, the property of the estate of Thos. S. Page, Cotate ranch, Sonoma county, Cal.; got by Red Duke 2566,—(Caroline Airdrie) by Sweepstakes 2802,—(Caroline 3d) by 11th Duke of Airdrie 3431,—(Caroline 2d) by imp. Admiral 1336,—(imp. Caroline) by Arrow 3 03—(Belfrage) by Harkaway 2015—(Gaudy) by Marmion 2261—(Moss Rose) by Locomotive 978—(Adelaide) by Cleveland 1629—by Young Eryholme 1291,—by Wonderful 590,—by Merlin 370,—by Alfred 20,—(Cupid) by Suwarrow 547.

Our engraving is made from a drawing by Andrew P. Hill. It is reduced from a large drawing by Mr. Hill which is owned by the estate. It is a work of art exceedingly creditable to the artist, and presents a most striking likeness of the animal. We propose to continue the publication of engravings from Mr. Hill's drawings, believing that we can thereby advance the appreciation of fine stock among our readers.



[Engraved by Scientific Press Engraving Co.

SHORT HORN BULL, "SONOMA," COTATE RANCH HERD.

THE NEW CROP OF RAISINS.—The first of the new crop of raisins were received in the city last week. They were shipped by John Briggs, but not made by him. The quality was not the best, because the raisins were evidently picked too green. Mr. G. P. Rixford, who has studied the marketing of raisins very thoroughly, informs us that there is a very general disposition this year to pack in 5, 10 and 20-pound boxes, and thus do away with the tractional quantities in the imported boxes. Mr. Briggs will make 10,000 ponnds this year and will use these sizes of boxes. Feusier & Spafford sent out last season 12,000 boxes of these sizes and had them filled. Thus it appears that this even style of package will be quite general and will doubtless establish a name as a California raisin box. Mr. Rixford estimates this year's raisin crop as four times as great as last year. We read that Dr. Chandler, of Sutter, who has made the curing of raisins a specialty for some years, has 40 tons spread and drying at his Sutter vineyard, and will pick about 10 more. At the Nickerson vineyard, in Placer county, he expects to pick and cure about 100 tons, making his total crop for the year on both places about 150 tons. The amount, however, will be governed by favorable or unfavorable weather.

A FREIGHT train on the C. P. R. R. fell off the trestle work near Bantas on Monday last, wrecking 13 cars and killing two persons. The accident was caused by the dropping down on the track of a brake beam, damaging the trestle and track to a considerable extent.

The Dairy Meeting.

We are enabled to announce that the session of the dairymen's meeting, beginning Wednesday Oct. 4th, will be held in the hall of the Young Men's Christian association, this city. The hall is located on Sutter between Kearny and Dupont, and is therefore quite accessible. The cars of the Sutter street railway from the City Front run directly in front of the building, and thus quick communication can be had with the different lines of travel to the city. The prospects for an interesting and profitable meeting are very fine, and it is to be hoped that all dairymen will attend and take part in the discussions of matters relating to the industry. Let every one bring forward his successes and his hardships. Let those who can bestow information or desire to obtain it; those who desire to speak or listen, give their presence and support to the meetings and the result will be a great advance in the undertaking of the dairy industry of our State, and a strength of union among producers which will enable them to improve their work and the rewards for it.

In an editorial calling attention to this meeting, the *Chronicle* says: "In October the State dairymen's association will meet in this city, and it behooves every man engaged in the business to lend a helping hand. Such an association permanently established will be of incalculable benefit to California. Unity of action in this, as in all other branches of production, is essential to success, both as regards the marketing of dairy products and the uniform excellence which is attained by a free discussion of all the methods in use. The members of the dairymen's association should come to this first meeting prepared to instruct and be instructed. They should be ready to give a clear account of their own achievements, and by comparing them with the results of other dairymen, judge as to the profitableness of the various processes. It only requires the diffusion of practical knowledge, and the establishment of concerted action, to make California dairy products famous. With the alfalfa field we have green feed and golden-yellow buttor the year round, and with a climate which has no equal for stock-raising, the State must eventually outrival New York in its dairy products."

OREGON STATE FAIR.—We acknowledge with thanks the receipt of a handsome card of invitation to the Oregon State fair, from E. M. Waito, Secretary. The fair will be held at Salem, October 9th-14th, and we commend it to all our Northern readers and all who can make the trip thither.

CORRESPONDENCE.

[Editorial Correspondence.]

Summering by the Seaside.

Worn down with the unusual heat of this extraordinary season, your Centennial correspondent has joined the great *hegira* to the sea side and country resorts for a little relief and recuperation. A sudden transition by rail and steamer from Philadelphia to the interior of Maine rendered the substitution of an overcost for the usual summer wear an essential to comfort; but the change was quite too great, and we sought a change of locality in a quiet retreat among the unique attractions of Martha's Vineyard—a locality which has no superior for refreshing and invigorating air, sea bathing, fishing, free sociability and all the varied enjoyments sought for by those who visit places of summer resort. This island, located just off the southeastern portion of Massachusetts, has long been noted throughout the maritime world for its great harbor of refuge for sea going vessels, and for its pretty nestling villages at "the head of the harbor"—formerly known as Holmes' Hole, but recently rechristened with the more euphoneous title of Vineyard Haven. But its later and now most leading attraction is its celebrated seaside resort and "city of cottages" at Oak Bluffs, on the east side of the harbor, and about two miles distant from the village. I have thought that the general interest attached to this locality is amply sufficient to make it a proper subject for a letter to the PRESS.

"City of Collages"

Is a most appropriate title for this great watering place. When we arrived it was just entering upon the full tide of its summer prosperity, and was literally crowded with visitors. Some 20 yachts were lying in the offing or in the neighboring harbors of Vineyard Haven and Edgarton. Six or eight large steamers arrived during the day loaded with pleasure seekers from Boston, New York, New Bedford, Providence and other distant places, and the neighboring harbor was crowded with its usual fleet of transient shipping.

This watering place, although generally known as "Oak Bluffs," is really divided into three more or less distinct communities. The principal landing place is at the Oak Bluff wharf, immediately adjacent to a large hotel known as the Sea View house, the largest structure on the island, and one which forms a conspicuous object to all who approach the locality either by sea or land. It is an elegant and ornamental structure, four or five stories high, and is crowded with guests during the entire season. The grounds in its immediate vicinity are laid out in winding avenues, walks, squares, circles, etc., and mostly built up with highly ornamental cottages of one and two stories in hight. There are several other hotels besides the one mentioned, also stores of various kinds, bakeries, restaurants, etc., a fine ornamental structure for public worship and other assemblies, and a postoffice.

Just beyond this, and separated by a line fence only, with numerous convenient openings, is located what is known as the Methodist Vineyard camp ground, covered with a dense and thrifty growth of oaks, mostly small and somewhat scrubby, but well filled with leaves, and shady. The present season is the semi-centennial anniversary of its occupation as a camp ground. These grounds are also tastily laid out and built up. A large tent, capable of seating some 3,500 people, occupies a central position, and is used as a place for public worship. I have just learned that the managers have purchased one of the Centennial buildings at Philadelphia, and will take it down in sections and remove it to this locality, to hereafter take the place of the tent. The camp meeting season continues for one week, but the cottages are mostly occupied for about three months.

A few rods beyond this, and separated therefrom by a beautiful sheet of water known as the Lagoon pond, is the Baptist camp ground, which having but recently been occupied, is not yet built up to any great extent. This place is also covered with thrifty young oaks, and will, no doubt, soon become as densely populated and as full of life as its neighbor across the pond.

From the above it will be seen that we have here quite a "peculiar institution"—a Methodist and a Baptist association intimately connected with a Gentile community—for the residents at the Bluffs are known here as "Gentiles." These different communities, each under its separate municipal or religious management, form a harmonious whole, each carefully striving to avoid any collision or interference with the other. The times for the camp meetings are set for different weeks, and the Gentile community is as careful as possible to avoid all "unpleasantness" which might naturally arise between those who visit the locality to seek pleasure alone and those who seek to mingle innocent pleasure and social enjoyment with religious worship. The entire community constitutes a great "happy family," striving to harmonize, as far as possible, different instincts and various social inclinations. The locality can justly claim all the natural attractions possessed by any similar place, and many others that are found nowhere else.

A Fairy Scene.

There is a peculiar freedom, ease and free sociability here which is not met with at any other watering place, and which is in marked contrast with such places as Newport, Long Branch, etc. It is impossible to conceive of an orderly community more entirely given up to innocent and health giving pleasure, or one more completely contented and happy than are the people who frequent this great summer city by the sea, numbering at times from 20,000 to 30,000 souls, gathered promiscuously from almost all parts of the country.

The cottages are peculiar to this locality. With great diversity in minor details, they are much alike in their general features. They are bird-like structures, with pretty but somewhat fantastic outlines, and are mostly constructed with broad, folding front doors, which are generally kept wide open, presenting a sort of *fete* appearance, and revealing to the passer by an endless diversity in taste and ornamentation within, and a seeming invitation to pause and study them as one would a display in one of the great exhibition buildings on the Centennial grounds. Some of these interiors are marvels of simple beauty, ease and comfort, especially when they are brilliantly lighted, as they are in the evening. There are but few curtains here to shut out the stranger's view. Suites of rooms are divided by looped-up drapery of lace and damask, all open to public gaze and stretching far back from room to room in charming vistas of simple, home-like loveliness. The open piano or organ, odd and unique pieces of furniture, pictures and paintings, birds, flowers, etc., are charmingly arranged, while the occupants, with their families and visitors, sit at their ease in picturesque groups within and without the doors, publicly but not ostentatiously exposed to view. Not unfrequently, in the cool of the closing day, the vista is closed by a party at a tea-table tastily set and covered with viands, flowers and fruits. No offense is taken if the passer by slacks his pace a little or even stops a moment to gaze upon the charming, unique scene before him. Music, singing and innocent laughter is heard without and within. Now the music from a passing band swells out upon the breeze; then, afar off, is heard a thousand voices in the great tabernacle, singing, to the accompaniment of cornet and organ, some grand old sacred melody, or, perhaps, the sweeter modern hymn, "Nearer, My God, to Thee." Troops of ladies and gentlemen and children are constantly promenading up and down the principal thoroughfares, or wandering through the leafy and beautifully shaded byways, flanked upon either hand by little parterres of flowers, rustic ornamentations and open cottages, gay with simple hangings, trooping children and happy fathers and mothers and brothers and sisters. These promenades remind me much of similar scenes at the Centennial grounds, or the evening promenades at the Institute exhibitions in San Francisco.

The business man here throws care to the winds; the grave and thoughtful lay aside their dignity as a garment not fitted for the occasion; old men become boys, old ladies girls, and each seems to vie with the other in trying to make everybody happy. Children fairly run riot here in innocent gaiety. I am told it is not uncommon for mothers to place a card, bearing the name of the parent and place where the cottage is situated, on the dresses of very young children and allow them to wander off at will among the crowd. If they get lost, as they often must among the mazy labyrinth of streets and cottages, some one, a police officer or other person, will be sure to bring them back. The leafy, sheltering oaks almost completely shut out the sun, and except in the principal avenues no horses or carriages or cars are allowed to endanger life or limb. The glowing faces and bounding steps of the little innocents fully attest to the rich store of health which they are gathering up from the pure air and invigorating breezes of

"This island of pleasure, of love and of song."

To one coming upon this scene for the first time, in the evening, when the thousands of cottages and tents are lighted up so as to display everything to the fullest extent, it is truly like entering upon a fairy land. The world nowhere else presents such a scene of lovely enchantment and delight. And what is most remarkable, during my protracted stay here I never witnessed a single act of disturbance, incivility, coarseness or impropriety. If there are policemen around—and I am told there are—they are not known from any other citizen by either dress or insignia. It is really wonderful that a community so large, so mixed and so constantly changing, and gathered from all parts of the country, should be kept so orderly and quiet with so little apparent effort. I can compare it to nothing but the early times in California, when we had neither laws nor lawyers—when every man was law to himself, and when the least encroachment upon the rights of another met with sure and swift retribution from an indignant community, without the intervention of either judge or jury.

During some days I am told that from six to eight thousand persons arrive and depart within 24 hours. The arrivals on two different days since I have been here were estimated at about 10,000 for each day. The number of steamer arrivals on those days were some 12 or 15, to say nothing of sailing vessels. The railroad, here as elsewhere, has been brought into requisition for the convenience of visitors. A circular horse railway runs around and about the grounds, by which visitors may very easily get a general view of the same. It is about three miles long, and no doubt gave the idea for the steam narrow gauge at the Centennial grounds in Philadelphia, which has been constructed for a similar purpose. A steam narrow gauge railway, some eight miles long, connects this place with the neighboring town of Edgarton, and the south beach at Katama, where lovers of clambakes and an open sea view with heavy beach rollers love to congregate. Clambakes are served up there every day.

A Bathing Scene.

A seaside watering place is nothing without conveniences for bathing, and here that luxury can be enjoyed to the fullest extent and with the greatest safety. Eleven o'clock is the usual bathing hour, and always affords a most jovial scene. Lovely woman is lovely anywhere, but by many she is considered most lovely when in salt water, if she only knows how to dress herself properly for the occasion. A jolly democracy in a bathing crowd of ladies. One cannot, on such an occasion, tell the wife of a railroad king from that of a horse jockey, nor a senator's daughter from a country schoolmarm. Such a crowd is also usually an amusing as well as an enlivening spectacle.

A few days ago quite a little sensation was created among the bathers and lookers on at the "Bluffs." For the convenience of those who wish to enter deep water, a platform has been reared just above high tide, with a flight of steps at its outer extremity from which the fair swimmers may descend gently to the sea. But a few days since, just as a number of ladies had appeared upon the platform, one of them made a sudden start, rushed swiftly along the planks, and without stopping to descend the steps plunged boldly, man fashion, into the sea. There was a hushed silence for a moment; many thought it was a case of suicide, and some gentlemen in a boat were about to rush to the rescue; but in due time the fair swimmer rose to the surface, shook the salt spray from her dark tresses, struck boldly out for a swim, and by her skillful maneuvers soon proved that she was an expert in such aquatic exercises. "Who is she?" was the inquiry which passed from mouth to month. It was subsequently made known that she was a native of Honolulu, in the Sandwich islands, where almost every female learns to buffet the surf equal to the boldest man.

This lady, for she is a lady and is treated as such in "society," is of "royal blood," and was sent to New Bedford, many years ago, to be educated. After completing her education she took a liking to American life and society and resolved to remain here, which she did, and married very respectably. When King Kalakaua was in New Bedford he was tendered a private reception, to which none but the *elite* were invited, and among the favored was the lady in question. When she was presented to the king she addressed him in his native tongue, calling him by his given name with the prefix of cousin, which term expressed the relationship between them. He at once recognized her, expressed much pleasure at meeting her, and remarked that her friends were very anxious that she should return to Honolulu, and that he would be happy to have her go back in his company. She respectfully declined, however, and assured him of her fixed determination to remain and pass the remainder of her days among those who had been so kind to her in this her adopted home. W. B. E.

Vineyard Haven, Sept. 1st, 1876.

Notes in Yolo County.

EDITORS PRESS:—After an absence of two years from Yolo county, it is easy to perceive the advancement made in every part of the county. Yet in some parts far more than the other portions. Here and there good comfortable farm dwellings, granaries and barns have been erected; roads macadamized and shade trees planted by the wayside, which latter improvement, if made general, would add greatly to the wealth, beauty and comfort of the county, and not cost so much as many suppose.

The Holton brothers, near Cottonwood, have a line of young locusts on each side the road about one mile long. They plowed the ground well and planted the locust seeds two in a place, 14 feet apart, and where both grew transplanted one to where both failed. The trees have made quite a good growth and look well without any irrigation. They are planted far enough from the fence to allow plowing a few furrows, and also prevent cattle from reaching after them from the fields. The road extends through their lands for one mile and is closed by gates to prevent stray stock from injuring the trees. If all the highways in the county were thus beautified, it would add immensely to the value of real estate.

To be in Yolo county at this season of the year gives the impression that this is the granary portion of the State. At Davisville, Woodland, Winters, Cacheville, Donnigan's and other railroad depots or stations, the grain wagons are thronging and piling up the sacks, and carpenters are busy housing it in. Many are all done hauling, but others have yet vast piles to be hauled. At the entrance to Capay valley is

Capay City,

Or Langtown, very pleasantly situated near Cache creek and the center of trade for Hungry Hollow, Capay valley and the vicinity around. It has now a first-grade school, under the charge of Miss Lowe, a successful educator; three or four stores, harness maker, smith and wagon shop, boot maker, two hotels, and several saloons. It was thronged with grain teams, which on inquiry I learned were all from Capay valley, part going to Woodland and part to

Winters,

Esch 16 miles distant. Winters is an infant city of one year's growth, and contains a large and active population. Winters has a very respectable weekly paper under the able editorship of W. O. Wornock. There is also an elegant public school building for graded school, two nest church edifices, M. E. South and Cumberland Presbyterian. The latter was all paid for (by 11 persons) before being dedicated, a worthy example for larger places. Winters, named after Theodore Winters by the railroad company, is the depot for considerable portion of Solano county and Berryessa valley in Napa county, and surrounding portions of Yolo. Work has been commenced on the extension of the railroad to Cottonwood and Capay City, so next year's crop will not require long miles of hauling, and thus save a month of time to the farmer for rest or improvement. Among the public improvements noticeable is the

New County Road,

Opened from the head of Capay valley to the Reed and Knoxville quicksilver mines at the extreme west end of the county, where Lake and Napa counties join Yolo. A regular stage line now connects Woodland by this road with the quicksilver mines, and when the Winters railroad sounds its whistle in Capay, much if not all their freighting and travel will pass out by this route.

Cacheville,

Four miles north of Woodland, has now its own railroad depot, as the Woodland and Colusa Valley railroad passes through it, also giving a depot at Buck's station, about halfway to Donnigan's station, or Antelope, as the post-office name is. This Antelope reminds me that deer are not yet all driven away from this county, as Mr. R. B. Butler, out hunting recently at the head of Capay valley, killed four. Pet deer are quite common. Mr. W. B. Gibson, near Woodland, has in a park over 20 deer of various ages. Strangers are safer on the outside of the enclosure.

Woodland,

The county seat, has rich surroundings of excellent farms and has a large population and considerable of capital to invest in various speculations. There are good schools and a college, admitting both sexes on equal terms. With these many advantages it must be for a long time the queen city for business and pleasure.

Yolo seems not yet to half appreciate her many advantages, and is but partially awake to its real capabilities. When the two streams, Putah and Cache creek, are thoroughly utilized for irrigation there will be a largely increased valuation to much of the real estate. By these streams, and an increased number of windmills where the streams will not reach, every portion of the county can abound in pleasant, attractive and luxurious homes. Society on the whole is very good, and improving. Schools are abundant, and several music teachers are employed on circuits giving lessons on the organ, which can be found, if not in every house, for as many as seven in succession in some neighborhoods. The instruments are generally of the better class, costing $200 to $300. The dealers in the different organs, as also the vendors of different styles of windmills, have not neglected this section, and each seem to have been benefactors beyond what is now estimable, so we will leave it for the amateur debaters to say which is the more valuable investment; but many sigh and say, I wish we had secured them years ago. B. W. C.

Cottonwood, Yolo Co., Sept. 7th, '76.

Cures for Grasshoppers and Potato Bugs.

EDITORS PRESS:—The enclosed is from the *Republican Journal*, published at Lawrence, Kansas, my former home:

To the Editors of the Council Bluffs Globe:—For the past two weeks I have been in this country from the West Indies and I find the grasshoppers making great ravages in vegetation. In order to prevent this, burn one pound of sulphur on charcoal, in the center of a field, and save what it has taken so much toil to develop. To prevent potato bugs from destroying the crop, plant two grains of flaxseed in each hill. This will prevent them from injuring the potatoes, as they will not go near the flax. DANIEL G. LANE.

Sulphurous acid gas would doubtless drive the pests away, or kill them, if applied broadcast in sufficient quantities. The remedy suggested for potato bugs is simple and cheap, and may be effective. D.

San Francisco, Sept. 11th, 1876.

Yes, doubtless sulphurous acid gas would be fatal to grasshoppers and other animal life, but care must be had, for plants do not take kindly to such an atmosphere. If the one who uses it does not take care his plants will assume the quality of bleached hops. It is a severe remedy and must be handled with caution.—EDS. PRESS.

HORTICULTURE.

My Sulphur Bellows.

EDITORS PRESS:—My sulphur bellows is large. I msde it myself, using unturned calf-skin, rubbed till pliable; hsir inside. Sheep skin would do as well. My boys start a little fire in a squirrel or gopher hole (when there is no danger of it spresding), sprinkle on a little sulphur and blow with the bellows a few moments. The smoke will come out of other holes some rods off. Cover these and the hole where the fire is, and the squirrels will never dig out.

But I have other uses for my bellows. If sn iron on my wsgon, plow, harrow or other farm implement wants straightening or adjusting in any manner, I put it in the stove with some chips or barks, blow with my bellows, take it out with a pair of blacksmith pincers, which are also useful in many ways, put it on sn ax stuck into a block, and strike while the iron is hot. I even sharpen plows in this manner. This method saves me msny a hslf day at the blscksmith's shop in the busy season. Every farmer should keep a few saws, plains, augers, bits, and save not only the time runniug to a carpenter when time is most precious, but the expense also. With a little practice and genius he will do the work better than a carpenter or blacksmith, because he will do it just as he wants it done, which the mechanic will not always do, as he does not know so well as the farmer just how it should be fixed to work to the best advantsge.

How often is a tool hrought home mended in such a msnner that it will not work at all, and the reaper or thresher and sll hands must be idle until it is readjusted. There is as much of the true principle of industry in hrain work as in brawn work, and both working intelligently together, supplemented with reasonable economy, will very speedily dispel this fearful incubus of debt, snd California farmers may once again go on their way rejoicing, as free men.

S. P. SNOW.

Watermelon and Sorghum Syrup.

EDITORS PRESS:—It msy pay well for every farmer to make a little watermelon syrup for family consumption; and every suggestion of this nature tending to economy and to checking such wasteful habits as characterize Californians, is valuable; but from my experience of the two in the "States," I give the decided preference to sorghum, both for quslity and cheapness. I have msde sorghum syrup mauy years; I have also occasionally msde watermelon syrup. True, the former requires a mill to express the juice, but a wooden mill will do, that any farmer can make, to mske two or three barrels of syrup each year. But on the other hand the juice requires muoh less boiling, and when done is, in my opinion, a far better article than watermelon syrup and capsble of being applied to many more culinary purposes. It is a sweetener, while the watermelon syrup is more like a species ot preserves. Sorghum syrup is, to my taste, much superior to ordinary syrups that I have seen in California.

From the best information that I have been enahled to obtain, sorghum does well in this State, and I often wonder why it is not grown. I attribute it to the improvident habit of most farmers of raising two or three staple articles, and buying or doing without all else. I have a small patch of sorghum, planted too late last spring, but it now looks well. In the East it will grow anywhere that will produce good corn, and I presume it will do the same in California.

S. P. SNOW.

The Alexander Peach.

We have seen, says the *Gardener's Monthly*, some letters addressed to Messrs. Jabez Capps & Sons in regard to this peach, from California, which compare it favorably with Briggs' Red May, and show it to be far superior to Early Beatrice. The latter seems going out of favor in California. The following we find in an Illinois paper:

The question is now, who shall produce the early peaches. English and American horticulturists have been vying with each other in this matter. First our Hale's Early was far ahead of the English Early York; next Mr. Rivers, of England, leads with his Early Beatrice; now Logan county has the honor of leading in the race with the Alexander, a peach that for earliness and excellence is ahead of all competitors. In California, that land of fruits, the Alexander is attracting much attention. The season is very late and fruits are generally two or three weeks later in ripening than usual. C. M. Silva & Son, of Newoastle, Cal., say that it ripened on the 12th of June; could have beon shipped several days earlier; ripened ten days earlier than Beatrice and were fully twice as large. Messrs. M. T. Brewer & Co., wholesale fruit dealers at Sacramento City, who received a box of Alexander by express, were surprised at seeing such fine flavored, large sized and bright colored peaches so early in the season, and pronounce it a very desirable peach for shipping, and say that the Beatrice will stand no comparison with it; that while Alexsnder peaches would sell in the market at 15 cents per ponnd the Beatrice would not sell for one cent."

More About Fruit.

EDITORS PRESS:—In a recent number of the PRESS I gave some items in regard to our fruit crop and where it was going to. I now wish to give some additional notes about some of our fruit growers and their orchards, showing where some of the fruit comes from.

Mr. J. M. Patterson, in the Willows, a mile or so south of San Jose, has a very fruitful little prune and plum orchard, that to my certain knowledge has produced good results in the way of bountiful crops of choice fruit for many years past, but none perhaps more satisfactory than the present.

His older prune orchard, to which I wish to refer, covers an area of seven acres of rich sediment land, and on which there is also growing about 400 large apple and pear trees in full hearing among the prune trees.

From this orchard he has this season sold to Mr. Porter, for the Chicago market, 20 tons of the Gros Prune de Agen; shipped to San Francisco 10 tons of the same variety; sold to the Alden fruit drying company 10 tons of the Petit Prune de Agen, and Mr. Patterson estimates the amount he has sold to other parties, dried and yet remaining in the orchard, at 20 tons more; thus making 20 tons of choice, marketable prunes and plums from seven acres of land, on which there is also 400 apple and pear trees hearing large crops of choice fruit.

The 20 tons of prunes sold to Mr. Porter and shipped to Chicago were carefully packed in the orchard, each prune being separately wrapped in soft paper.

Mr. Patterson, who has recently returned from the Philadelphia Centennial and an extensive tour through the Eastern States and Canada, says that he saw and bought California fruit everywhere, even along the railroads in Canada. He was careful to note the condition of the fruit, the prices paid for it, and with what favor it was everywhere regarded. From these observations, which were most favorable, and the increased attention everywhere given to the importance of the transportation of ripe fruits on reasonable terms from distant points, and the experiments and improvements being now made in refrigerating fruit cars and storage houses at the East, Mr. P. is of the opinion that the prospect for fruit growing in California in the near future is most flattering.

These thoughts and opinions, coming from a man of close observation and many years of successful experience in the business of growing and shipping our fruits, I thought more worthy of consideration to those already in the business, or who may contemplate engaging in it, than anything I could say on the subject.

But I have notes of other nice orchard homes, in the Willows and elsewhere, which must be deferred to another number.

G. W. M.

Santa Clara, Cal, Sept. 15th, 1876.

POULTRY YARD.

M. EYRE, JR., Napa, Cal., Corresponding Editor of this Department.

A Brown Leghorn Record.

Many questions are asked me as to how many eggs hens will lay, which are the best breeds, etc. I cannot at this time give better answers to these questions than by printing the following letter which I have received.

M. EYRE, JR.:—I forward to you a summary of my daily egg account of the fowls purchased of you. I am much pleased with your poultry items in the RURAL PRESS. I do wish you would publish them in book form so that they can be more easily preserved. The articles are better adapted to poultry breeding on this coast than any other published.

It was your Brown Leghorn letter in RURAL PRESS that induced me to make the happy experiment with 100 chickens raised, the result of which I enclose.

The Brahmas also, I think did remarkably well, and I did not mention that one Brahma was allowed to sit but not to raise her chickens. Some articles published are vague, indefinite and an opinion only; such, I think, is the last item in RURAL PRESS of September 2d. This remark refers only to the fact that the writer gives no record of eggs; otherwise, much of the letter is valuable.

You will see from the statement that at an average price of eggs, 35 cents per dozen, the Brahmas' egg value is $2.76 per head for the six months, while the Brown Leghorns are still better. I use portable hen houses after your recommendation in the PRESS.

Following is the number of eggs laid by

Four Light Brahma Hens

For six months: February, 22; March, 75; April, 65; May, 69; June, 85; July, 63.

Total number of eggs laid during the six months is 379, or 31 and 7-12 dozen. This is an average to the hen of 91.75 for the six months, and a monthly average of 63.1. Also an average of two eggs a day for the entire time. The eggs are very large and heavy, and the fowls weigh from eight to ten pounds. They are most excellent fowls for market, and last winter were double the price of common fowls.

The following is the record of the eggs laid by

Four Brown Leghorns

For the months of January and February, and of two hens of the same description for the balance of the time: January, 67; February, 87; March, 56; April, 41; May, 54; June, 44; July, 38.

From the above it will be seen that the total number of eggs laid by the four hens in two months is 154; an average of 41 eggs to the hen for the two months. Also that in five months the two hens laid a total of 283 eggs, an average total to each of 116, and a monthly average for both of 46, and to each of 23. The fowls are small and of brown color, and weigh about four pounds. They are constant layers, and the eggs are rather small and of chalky whiteness. The fowls are very lively and hardy.

R. H. BARKWAY.

Rio Vista, Cal.

THE SWINE YARD.

All the Profit in Early Maturity.

It is the law of annual growth that the cost increases as you put on each additional pound of live weight. The experiments at Michigan agricultural college, in which young pigs were fed upon milk, illustrates this point. Six pigs were fed four weeks with the following average: The first week it took 6.76 pounds of milk to make one pound of live weight; the second week 7.75 pounds; the third week 8.80 pounds; and the fourth week 10.42 pounds.

The experimenter says: "The quantity of milk required to produce a pound of live weight constantly increases."

In 1868, in further experiments, several pigs were fed upon meal for 20 weeks, and the experiment divided into five periods of four weeks each. The amount of meal required for one pound increase in weight was: First period—3.81 pounds; second period—4.05 pounds; third period—4 22 pounds; fourth period—5.24 pounds; fifth period—5.98 pounds.

In another experiment in 1868, with a greater number of pigs the result was the same; each period required more food to grow a pound live weight than the preceding period. The increase of cost for each additional pound of growth goes on with the age of the pig, and the same rule holds good with other animals.

We tried a similar experiment with ten calves upon milk, and it required a nearly regular increase of milk each week to produce one pound of growth. The proofs are so abundant that we must consider it a law of animal growth, and how vastly important that the feeder should understand it, and make growth upon his animals at the earliest period practicable.

Let us see the difference between selling a pig at nine or ten months and keeping it to two years old. If the pigs are well fed the first year they will reach 350 pounds, on an average; and if they are well fed the second year, they will reach 450 or 500 pounds. We will credit the second year with the largest amount, or a gain of 150 pounds and see how the account stands. It has been found by numerous trials that the pig will eat 50 per cent. more the second year than he did the first. And there is the best reason for this. If we take the weight of the pig at the end of the first year, and add half his gain the second year, we shall have 425 pounds as his average weight during the second year. There we perceive that we must supply the natural waste on 425 pounds live weight during all the second year, whilst his average weight during the first year was only 175 pounds; besides the waste is greater, proportionally, upon a mature than upon a rapidly growing animal. It will thus be seen that there is a good reason for 50 per cent. additional food during the second year. But if it cost 50 per cent. more to produce 150 pounds of growth the second year than it cost to put on 350 pounds the first, then the same food which only produces 150 pounds the second year would have produced 525 pounds if fed to pigs under one year old, or three and one-half times as much. Does not this demonstrate the great loss that occurs when pigs are kept to two years old, even in the best manner? But when scantily fed they will not weigh any more at the end of the second year than, under good feeding, at the end of the first year.

We present these considerations to show our readers the folly of the slow growth system.—*National Live Stock Journal.*

LIFE ON THE EARTH.—Prof. P. G. Tait, of the University of Edinburgh, in his lectures on recent advances in physical science, lately published, considers the question how long life has been possible on the earth. He concludes that 10,000,000 years is "the utmost that can be allowed from the physical point of view for all the changes that have taken place on the earth's surface since vegetable life of the lowest known form was capable of existing there." Opposed to this is the view of the most eminent modern geologists, that at least 300,000,000 years have passed away since terrestrial life began.

AMERICAN CREMATION.—A citizen of Washington, Penn., has built a large stone house on a hill for the reception of dead bodies, and a furnace scientifically constructed, in which they are to be burned. He has given strict injunctions to his executors that his own body be burned in the furnace.

STOCK BREEDERS.

Hints for Calving Time.

The *Country Gentleman* says: "The troubles which attend the calving time of cows are oftenest and best met in advance by the ounce of prevention, which is better than the pound of cure or the many pounds of attempt to cure. Especially is this true of heifers with their first calves, when it is all important to establish a good and healthy habit of coming in right. Old or middle-aged cows, which are well established in good habits of this sort, may be left to go through by themselves, after having been carefully tended in the main operation of feeding and keeping from exposure to cold and wet. But the heifer is entering upon new experience, which will subject her vital forces to the most extreme tension. A general carefulness in the treatment of all the breeding cows should be rigidly enforced. They should be kept from all sorts of violence and from the fear of it; they should not be made to strain or jump in getting over bars, fences or water gullies; they should not be made to travel faster than a walk; they should not be roughly spoken to; they should not be crowded and jostled among other cattle, or subjected to the pushing and hooking of others; but in all ways they should be handled gently and be made to feel that their master is their friend.

The swelling udder of the heifer should be carefully watched in this, its new experience, the most important function of her existence, since, without a good bag, she will be of small account as a cow. In the case of heifers and cows which come in early in the season there is less danger of inflammation from a too great flow of milk than in those which come in when grass is abundant; but this thing should be attended to at all times. If the udder is full and hard before calving time, and is likely to become inflamed, the best thing to be done is to draw off some of the milk before resorting to outward applications. If no milk can be drawn, in consequence of the bag having become hard before it was attended to, it should be carefully bathed with warm water, in which a little salt has been dissolved, or in a warm, weak soapsuds. An ointment of hog's lard and cream, or fresh butter with camphor in it, may be rubbed on the bag and teats by the hand.

If everything seems to be going on right with the animal, it is best not to interfere with the healthy process of nature, only to provide nutritious food, dry beds and shelter from the cold storms. If it seems necessary to administer internal preventives or remedies for milk fever, the most approved medicine among our dairymen is a solution of saltpeter, two teaspoonfuls a week, for two or three weeks before calving, given as a drench. Plenty of pure water to drink, as well as plenty of good food to eat, is a staple item in the care of cows at the time of calving, as well as at all other times. Cows which are in high flesh are most likely to be troubled with milk fever.

Immediately after having dropped her calf, the cow should be treated to a pailful of warm, thin mush of mill feed in water, which will assist her vitality to expel the afterbirth, and enable her to go on with the motherly care of her calf, which she knows how to do, and in the doing of which she should not be meddled with, if the calf is able to get upon its feet and go for its dinner.

Rearing Calves Without Milk.

An English paper says: At the ordinary held at Congleton on the recent fair day, Mr. Taylor, the landlord of the Lion and Swan inn, explained to the company, who were principally farmers, a very economical method, as adopted by himself, of rearing calves without milk. Subjoined is Mr. Taylor's plan of operation: Soon after a cow calves some oatmeal is scalded, mixed with common brown sugar, and made into balls about the size of a hen's egg, one or two of the balls being given three times a day to the calf, which sucks them and swallows them greedily. After the first three days the calf is fed by hand, and in small quantities, with chopped hay mixed with bean or barley meal scalded. The calf, after a few trials, eats the mixture voraciously. After the first three days, too, one quart of thin meal gruel is given to each calf. The young stock, for which Mr. Mr. Taylor obtains remarkably good prices, feed better than those fed in the old way; no noise or bleating is heard among them. They are free from sickness or swelling. They grow rapidly, and are soon turned to grass. Mr. Taylor stated that he reared 12 calves each year for the last three years in this way, thus effecting a larger saving of milk, which, as he had two or three cows only, was all required for the use of his hotel, while the plan only involved him in a little extra trouble for the first few days.

A NOTABLE PUBLICATION.—The last number of the Chicago *Live Stock Journal* should be in the hands of every stock breeder in the country. It contains 26 illustrations, finely drawn, giving faithful likenesses of four horses, typical of the different breeds. Then follows a male and female of each of the leading breeds of cattle, making, in all, 12 cattle portraits. Then we have Cotswold, Leicester, Southdown and Merino sheep; Berkshire, Yorkshire, Essex, Chester White, Suffolk and Poland-China swine; making in all a series of illustrations that have never been approached by any other journal of the kind in the world.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Annual Meeting of the Grangers' Bank of California.

The annual meeting of the stockholders of the Grangers' Bank of California for the election of Directors for the ensuing year, and also to amend the by-laws if found necessary, will be held at the office of the Bank on Tuesday, the 10th day of October, 1876, one o'clock P. M.

C. J. CRESSEY, Vice President,
No. 42 California street.

San Francisco, Sept. 11th, 1876.

Copies of the Constitution and By-Laws of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

P. of H.—Subscribers who pay fully one year ($4) in advance for the Pacific Rural Press can receive the California Patron *free*, or other premiums. See our premium list in another column.

Grange Directory.

California State Grange.

OFFICERS FOR 1875-7.

Master—J. V. WEBSTER, Brooklyn, Alameda Co.
Overseer—T. A. GAREY, Los Angeles, Los Angeles Co.
Lecturer—J. W. A. WRIGHT, Borden, Fresno Co.
Steward—NELSON CARR, Bennett Valley, Sonoma Co.
Assistant Steward—M. WOODHAMS, La Honda, S. Mateo Co.
Chaplain—J. M. HAMILTON, Guenoc, Lake Co.
Treasurer—J. B. CARRINGTON, Denverton, Solano Co.*
Secretary—AMOS ADAMS, Franklin, Sacramento Co.*
Gate Keeper—J. B. SAUL, Napa, Napa Co.
Ceres—MRS. MARY E. IVENS, Cambria S, Lnis Obispo Co.
Pomona—MRS. S. C. BAXTER, S. F., San Francisco Co.
Flora—MRS. VITAL E. BANGS, Modesto, Stanislaus Co.
Lady Assistant Steward—MRS. NELSON CARR, Bennett Valley, Sonoma Co.
*P. O. Address, for official business, San Francisco.

Executive Committee:

J. V. WEBSTER Chairman, Brooklyn, Alameda Co.
A. D. LOGAN, Princeton, Colusa Co.
H. M. LEONARD, Santa Clara, Santa Clara Co.
J. M. THOMPSON, Suscol, Napa Co.
W. S. MANLOVE, Sacramento, Sacramento Co
WM. SIMS, Buckeye, Yolo Co.
O. H. COOLEY, Cloverdale, Sonoma Co.

General Deputy.

San Francisco. T. H Merry. No. 13, City Hall.

County Deputies.

County.	Deputy.	Post Office.
Alameda.	Thos. Heller.	Haywards.
Alameda.	Alfred T. Dewey.	Oakland.
Amador.	H. Vanderpool.	Plymouth.
Butte.	Ed. Hallett.	Chico.
Butte.	W. M. Thorp.	Chico.
Colusa.	Jacob Meyers.	Grand Island.
Contra Costa.	Natbaniel Jones.	Lafayette.
El Dorado.	A. J Christie.	Sutter Mills.
Humboldt.	H. W. Arbogast.	Arcata.
Humboldt.	Jackson Sawyer.	Table Bluff.
Lake.	H. A. Oliver.	Lakeport.
Los Angeles.	Thos. A. Garey.	Los Angeles.
Marin.	H. F. Taft.	Nicasio.
Mendocino.	John Mewhinny.	Pomo.
Mendocino.	W. D. White.	Ukiah.
Merced.	J. L. Crittenden.	Special Deputy
Merced.	H. B. Jolly.	Merced
Modoc.	C. L. Sullivan.	Willow Ranch.
Nevada.	H. L. Hatch.	Indian Springs.
Placer.	A. J. Soule.	Lincoln.
Sacramento.	W. S. Manlove.	Sacramento.
San Benito.	J. D. Fowler.	Hollister.
San Bernardino.	George Lord.	San Bernardino.
San Diego.	Chas. O. Tucker,	Ballena.
San Joaquin.	W. L. Overhiser.	Stockton.
San Joaquin.	J. W. Kerney.	Lodi.
San Luis Obispo.	A. J. Mothershead.	Moro.
San Luis Obispo.	C. H. Ivens.	Cambria.
San Mateo.	M. Woodhams.	La Honda.
San Mateo.	I. C. Steele.	Pescadero.
Santa Barbara.	O. L. Abbott.	Santa Barbara.
Santa Clara.	J. A. Wilcox.	Santa Clara.
Siskiyou.	J. S. Mathews.	Fort Jones.
Solano.	R. O. Haile.	Suisun.
Solano.	J. O. Merryfield.	Dixon.
Sonoma.	B. B. Capell.	Healdsburg.
Sonoma.	G. W. Davis.	Santa Rosa.
Sonoma.	W. W. Chapman.	Petalnma.
Sutter.	O Ohleyer.	Yuba City.
Tulare.	W. Underwood.	Lemoore.
Ventnra.	E. B. Higgins.	Saticoy.
Volo.	Wm. Sims	Winters.
NEVADA.		
State of Nevada.	A. J. Hatch,	Reno.
Douglas.	J. R. Livingston.	Genoa.
Esmeralda.	Kimber Clesver.	Mason Valley.
Humboldt.	B. F. Riley.	Paradise Valley.
Elko.	J. A. Tinker.	Elko.

Farmers desiring to organize Granges can apply to J. V. Webster, (W. Master,) Brooklyn, Alameda Co., Amos Adams, (W. Sec'y,) 40 California street, S. F., or to the nearest Deputy to their locality.

Pomona Granges.

No. 1.—Los Angeles County, Enwarn Evey, M.; G. C. Gibbs, S.
No. 2.—Fresno County, W. J. Hutchison, M.; W. A. Sanders, S.
No. 3.—Solano County.
No. 4.—Sonoma County, L. Goss, M.; W. McP. Hill, S.
No. 5.—Napa County, J. M. Mayfield, M.; J. W. Ward, S.
No. 6.—Stanislaus County, H. W. Browse, M.; V. E. Bangs, S.
No. 7—Nevada County, O. Banber, M.; W. Stevens, S.

California Subordinate Granges.

[This list contains the names of Masters and Secretaries so far as reported to us, elected to serve during the year 1876. In Granges not reported we continue the names of last year's officers. Secretaries and others will greatly oblige us by making needful corrections.]

Explanations.—The P. O. address is given only where it is different from the name of the Grange.

Grange and P. O.	Master.	Sec'y.
AMADOR COUNTY.		
PLYMOUTH.	J. Sallee.	S. O. Wheeler
JACKSON VALLEY.	W. H. Prouty.	J. O. Hamsick
ALAMEDA COUNTY.		
CENTERVILLE.	J. M. Horner.	M. B. Sturoes
EDEN, Hayward's.	J. Russell.	Wm Pearce
LIVERMORE.	D. Inman.	O R. Owens
SUNOL.	E. M. Carr.	S. W. Millard
TEMESCAL, Oakland.	C. Bagge.	John Collins
BUTTE COUNTY.		
OHICO.	W. M. Thorp.	J. T. Daily
EVENING STAR, Nelson.	A D Nelson	A. K. Baker
HAMILTON, Biggs St'n.	T. A. Rogers.	Anson Brown
NORD.	J. B. Clarke.	Mrs. C. A. Colby
CALAVERAS COUNTY.		
CALAVERAS, J'ny Lind.	M. F. Gregory.	R. Thompson
COLUSA COUNTY.		
ANTELOPE VALLEY.	H. A. Logan.	P. Peterson
COLUSA, Colusa.	J. R. Totman.	R. Jones
FRESHWATER, Colusa.	P. S. Perdue.	R. A. Wilsey
FUNK SLOUGH, Colusa.	G. H. Abel.	Ida Fulton
GRAND ISLAND.	J. Meyers.	H. D. Strawther
PLAZA, Jacinto.	M. Kendrick.	J. W. Bowers
PRINCETON	P. H. Scott.	H. Jamison
SPRING VALLEY.	B. Lucas.	T. Singleton
WILLOWS, Princeton.	J. R. Troxell.	L. D. Brown
CONTRA COSTA COUNTY.		
ALHAMBRA, Martinez.	J. Strentzel.	Mrs. M. B. Lander
ANTIOCH.	Josiah Wiltse	Mrs. S. A. Sellers
DANVILLE.	D. N. Sherburne	Mary Lynch
POINT OF TIMBER.	J. E. W. Carey.	G. W Carter
WALNUT CREEK.	M. S. Gray.	R. M. Jones
DEL NORTE COUNTY.		
ELK VALLEY, Cres'nt Cy.	W. R. Rexford.	W. B. Smith
NORTH STAR, Smith's Riv	J.L. Beckstead.	W. C. Bailey
EL DORADO COUNTY.		
CLARKSVILLE.	P. R. Willot.	I. Maltby
EL DORADO.	J. M. B. Weatherwax	Miss C. J. Shelton
PILOT HILL.	P. D. Brown.	W. Taylor
PLACERVILLE	Wm. Wiltze.	F. M. Dickerhoff
SUTTER MILL, Coloma.	J. G. O'Brien.	H. Mahler
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ADAMS, Big Dry Creek.	T. P. Hall.	T. H. Wyatt
BORDEN.	E. S. Russell.	Chas T. Badger
GARRETSON, King's R.	Jos. Burns.	H. C Hioby
KINGSBURG, Wheatville.	J. W. Taber.	W. Livermore
RISING STAR, Panochi.	I. N. Canfield.	G. F. Hinkley
RIVERDALE, Fresno City.	J. H. Thomas.	C H. Welling
SYCAMORE.	A. C. Bradford.	J. A. Allen
HUMBOLDT COUNTY.		
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FERNDALE.	J. C. Dungan.	E. C. Damon
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MATTOLE, Petrolia.	S. Goff.	David Simmons
ROHNERVILLE.	H. S. Case.	S. Strong
TABLE BLUFF.	B. W. Pollard	M. Febrier
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BISHOP'S CREEK.	G. W. McCrosky.	G. Collins
INDEPENDENCE.	J. W. Symmes.	W. A. Cassidy
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BAKERSFIELD.	O. B. Ormsby.	J. T. Ish
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LINN'S VAL'Y, Glenville.	O. Lindsay	F. Smithwick
PANAMA, Bakersfield.	F. P. May.	J. B. Rumford
TEHICHIPA.	M. A. Tyler.	Emma Prewett
WELDON.	J. B Batz.	James Swan
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GUENOC.	J. M. Hamilton.	T. W. Whitinoton
KELSEYVILLE.	J. H. Renfro.	T. Ormiston
LAKEPORT.	J. W. Boggs.	J. W. Everett
LOWER LAKE.	C. L. Wilson.	Lucy S. Wilson
UPPER LAKE.	J. B. Robinson.	D. Q. McCarty
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LAKESIDE.	L. Hicks.	Mrs. M. F. Bangham
LASSEN, Susanville.	J. Jensen.	O. W. Moore
LOS ANGELES COUNTY.		
AZUSA, El Monte.	Ira S. Thompson.	J. C. Preston
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FAIRVIEW, Anaheim.	David Eyre.	J. M. Ganin
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FRUITLAND, S'ta. Ana.	N. O Stafford.	E. L. Russell
LOS ANGELES.	S. A. Waldron.	J. Q. A. Stanley
LOS NIETOS.	F. B. Grandin.	W. S. Reavis
NEW RIVER, Corvallis.	M. J. McGauch	S. G. Baker
ORANGE.	L. J. Lockhart.	J. W. Anderson
SILVER L. Nietos.	W. P. McDonald.	Dora Skidmore
VINELAND, Tustin O.	G. W. Freeman.	Eugene Stine
WESTMINSTER.	G. C. Mack.	W. F. Poor
MARIN COUNTY.		
NICASIO.	T. H. Esty.	H F. Taft
TOMALES.	O Husdell.	R. H. Prince
MENDOCINO COUNTY.		
CAHTO.	J. J Thomas.	J. H. Clarke
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LITTLE LAKE.	B. Mast.	J. G. Snell
MANCHESTER.	W. H. Cureton.	J. Lane
POMO.	J. Mewhinney	E. V. Jones
POTTER VAL'Y.	H. W. Baker.	Mrs. A. H. Slingerland
ROUND VALLEY, Covelo.	P Handy.	Will Todd
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SNELLING.	G O. Baker.	E. Kelsey
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MODOC.	L. E. Henderson.	A. B. Crawford
MONTEREY COUNTY.		
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SALINAS.	P. Matthews.	Clara Westlake
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BERRYESSA, Monticello.	J. W. Smith.	Mrs. Stafford
NAPA, Napa City.	D. Gridley	Harry Haskell
POPE VALLEY.	C. A. Booth.	Sallie Bayne
ST. HELENA.	J. Lewellyn.	Chas. A. Story
YOUNTVILLE.	T. L. Grigsby.	F. Griffin
NEVADA COUNTY.		
GRASS VALLEY.	Chas. Barker.	W. Stevens
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MAGNOLIA, Grass Val.	E. M. Denton.	P. A. Womack
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FRANKLIN.	W. Johnson.	S. G. Bradford
GALT.	A. B. Bryant.	J. L. Fifield
GEORGIANA, Rio Vista.	H F. Smith.	J. H. Maxwell
SACRAMENTO.	G. W. Hancock.	G. T. Rich
SHERMAN I. Emmaton.	A. J. Bigelow.	E. H. Boggs
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HOLLISTER.	M. Pomeroy.	J. D. Fowler
SAN BERNARDINO COUNTY.		
RINCON, Chino.	T. W Stanfield.	John Taylor
RIVERSIDE.	E. G. Brown.	W. O. Price
SAN BERNARDINO.	Geo. Lord.	T. D. Henry
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BEAR VALLEY.	W. H. II. Dinwiddie.	A. M. Striplin
BERNARDO.	J. P. Jones.	W. A. Fuller
NATIONAL RANCH.	F. A. Kimball.	G. D. Kimball
POWAY.	J. M. Woods.	E. D. French
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SAN JACINTO.	T. D. Henry.	Mrs. M. Collins
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GOLDEN GATE.	J. D. Blanchar.	F. K. Rule
SAN JOAQUIN COUNTY.		
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ELLIOTT.	J. Wiltse.	B. M. Greene
FARMINGTON.	I. R. Henry.	E. O. Long
LIBERTY, Acampo.	T. M. Tracy.	J. Schomp
LINDEN.	D. Lewis.	James Wasley
LOCKEFORD.	G. C. Holman.	G. Kemble
LODI.	J. M. Fowler.	Mrs. A. W. Gove
RUSTIC, Lathrop.	H. Moore.	H. B. Dunn
STOCKTON.	W. G. Phelps.	T. J. Stephens
WASHINGTON.	A. A. Van Saat.	C. Bamert
WEST S. JOA'N, Ellis.	C. D. Needham.	J. Quackenbush
WILDWOOD.	E. D. Morrison.	W. M. Muncey
WOODBRIDGE.	Ezra Fiske.	J. D. Huffman
SAN LUIS OBISPO COUNTY.		
ARROYO GRANDE.	W. H. Nelson.	B. J. Wood
CAMBRIA.	O. H. Ivins.	H. Olmstead
MORO CITY.	A. J. Mothershead	H. Y. Stanley
OLD CREEK.	J. Flood.	A. L. Tolle
PASO ROBLES.	H. W. Rhyne.	John Thomson
SAN LUIS OBISPO.	Geo. Steele.	A. T. Mason
SUMMIT, Paso Robles.	A. Smith.	A. T. Foster
SAN MATEO COUNTY.		
CRESCENT, H M Bay.	J. B. Gilchrist.	A. G. Woods
LA HONDA.	M. Woodhams.	Mrs. J. F. Woodhams
OCEAN VIEW.	I. G. Knowles.	H. E. Graves
PESCADERO.	J. C Steele.	E. Leighton
SAN MATEO.	A. F. Green.	O. E. Kowe
SANTA BARBARA COUNTY.		
CARPINTERIA.	O. N. Cadwell.	M. Whitford
CONFIDENCE, Guadalupe.	J. Mobse, Jr.	F. N. Cocke
LOMPOC.	Wm. Jackson.	W. W. Broughton
SANTA BARBARA.	O. L. Abbott.	V. F. Russell
SANTA MARIA.	M. D. Miller.	Mrs. Thornburg
SANTA CLARA COUNTY.		
GILROY.	C. Wentz.	W. F. Oldham
SAN JOSE.	C. T. Settle.	H G. Keeslino
SANTA CLARA.	I. A. Wilcox.	A. B. Hunter
SARATOGA.	F. Dresser.	Miss Jennie Farwell
SANTA CRUZ COUNTY.		
BEN LOMOND, S'ta Cruz.	John Burns.	Jas. Burns
PAJARO, Watsonville	D. Crawford.	L. B Johnson
SANTA CRUZ.	B. Pilkinton.	D. Wilson
WATSONVILLE.	J. M. Ripley.	O. S. Tuttle
SHASTA COUNTY.		
COTTONWOOD.	O. P. Dunham.	John Barry
MILLVILLE.	E. Wagner.	J. P. Ward
READING.	J. F. Dinsmore.	F. Michaelson
SIERRA COUNTY.		
SIERRA VALLEY.	E. F. Lemmon.	J. G. Lemmon
LOYALTON.	F. M. West.	W. O. Collins
SISKIYOU COUNTY.		
ÆTNA.	J. S. Matthews.	I. H. Walker
MT BOLIVAR, Callaban's R.	R. M Hayden.	O. F. Boyce
SOLANO COUNTY.		
BINGHAMPTON.	A. Bennett.	G. A. Brown
DENVERTON.	R. H. Barkway.	G. O. Arnold
DIXON.	G. M. Dudley.	Martha McBride
ELMIRA.	J. McCrokery.	Mrs. J. A. Clark
POMONA.	R. O. Hail.	J. R. Morris
MONTEZUMA, Col'nsville.	C. M. Isn.	C. K. Marshall
RIO VISTA.	J. W. Cameron.	A. Dosier
ROCKVILLE.	J. R. Morris	A. T. Hatch.
SUISUN VALLEY.	R. O. Haile.	A. C. Miller
VACAVILLE.	R. O. Marshall.	A. P. Conurn
VALLEJO.	J. F. Deming	G. C. Peasson
SONOMA COUNTY		
BENNETT V. S'ta Rosa.	A. Burnham.	G. N. Whitaker
BLOOMFIELD.	Wm. H. White.	A. B. Glover
BODEGA.	E. S. Perine.	E. H. Cheney
CLOVERDALE.	Chas. H. Cooley.	F. W. Davenpost
GEYSERVILLE.	A. Stites.	W. H. Adamson
HEALDSBURG.	B. B. Oapell.	W. N. Gladden
PETALUMA.	W. W. Chapman.	Freman Parker
SANTA ROSA.	G. W. Davis.	Julius Ort
SEBASTOPOL.	L. Ross.	W. J Hunt
SONOMA.	Wm. McP. Hill.	J. A. Poppe
TWO ROCK.	S. M. Martin.	J. O. Pusvine
STANISLAUS COUNTY.		
SONITA, Crow's L'd'g.	J. W. Treadwell.	A. B. Crook
CERES.	H. W. Brouse.	R R. Whitmore
COTTONWOOD.	W E. Riddle.	Oscar Barcock
GRAYSON.	Wm. Love.	A. C. Lander
OAK DALE.	O. R. Callendar.	C. B. Ingalls
ORISTIMBA. Hill's F'ry.	E. H. Robison.	C. O. Easton
SALIDA, Modesto.	J. D. Reysurn.	J. P. Vincent
STANISLAUS, Modesto.	V. E. Bangs.	B. B Robinson
TURLOCK.	B. H. Deane.	Miss L. Deane
WATERFORD.	R. R. Warder.	W. C. Collins
SUTTER COUNTY.		
NORTH BUTTE.	B. R. Spillman.	W. McMurtry
SO. SUTTER, Pleas. Grove.	Thos. Boyd.	W. Tarveghan
SUTTER, Meridian.	W. C. Smith.	S. H. Moore
YUBA CITY.	J. O. Dressar.	M. F. Honan
TEHAMA COUNTY.		
FARMINGTON.	C. F. Foster.	C. O. Chittenden
NEW SALEM, Paskento.	W. W. Botkin.	J. R. Whitlock
RED BLUFF.	R. H. Blossom.	C. E. Fonda
TULARE COUNTY.		
CHRISTMAS, Visalia.	S. H. Blood.	J. Perrin
DEEP CREEK.	A. W. Mathewson.	W. G. Pennebakes
FRANKLIN, Grangeville.	T. S. Harrington.	G. W. Camp
LAKE, Grangeville.	R. B. Huey.	M. M. Rhoads
KEYSTONE.	Erastus Axtell.	N. K. Golden
MANZANITA.	J. K. Cramer.	Mrs. M. C. Becker
MOUNT WHITNEY.	A. F. Thompson.	G. W. Duncan
MUSSEL SLOUGH.	W. Underwood.	W. H. Battenfeld
TULARE.	P. S. Tracy.	J. A. Goodwin
TULE RIVER.	C. W McKelvey.	W. H. Atkinson
VISALIA.	H. Hunsacker.	W. Curtis
WOODVILLE.	J. A. Slover.	J. H. Grimsley
TUOLUMNE COUNTY.		
SONORA.	G. C. Soulsby.	J. W. Purdy
VENTURA COUNTY.		
OJAI, Nordhoff.	C. E. Soulz.	J. Hobart
PLEASANT VALLEY.	W. P Ramner.	W. O. Wood
SAN PEDRO. Hueneme.	J. Y. Savieas.	D D. DeNure
SATICOY.	E. B. Higgins.	Miss A. Baker
SESPE, San B'ventura.	F. A. Sprague.	H. Warrino
VENTURA, San B'ventura.	C. S. Presle.	J. M. Brooks
YOLO COUNTY.		
ANTELOPE.	W. J. Clark.	T. F. Hughes
BUCKEYE, Winters.	Wm. Sims.	Mrs. E. A. Moody
CACHE CREEK.	S. B. Holton.	E. R. Holton
CAPAY VALLEY.	J. N. Rhodes.	W. D. Holcom
DAVISVILLE.	J. C. Campbell.	H. Bowers
FAIR VIEW VAL., Yolo.	A. H. Nixon.	T. A. Gallup
WEST GRAFTON.	Geo. Sharpnack.	J. G. Bower, Jr
YOLO, Woodland.	R. B. Bloweas.	G. N. Freeman
YUBA COUNTY.		
KELLEY, Smartsville.	J. E. Rickey.	Wm. Schmidt
MARYSVILLE.	T. Fletcher.	C. G. Brokius
WHEATLAND.	J. H. Keefs.	C. K. Dam

Consolidations.

Hopeton No. 80 with Snelling No 105.
Windsor No. 33 with Healdsburg No. 18.

Nevada Subordinate Granges.

[Under the Jurisdiction of California.]

ALFALFA, Reno: A. J. Hatch, M.; E. C. McKinney, S.
CARSON VAL'Y, Genoa: T. Irvin, M.; R. J. Livington, S.
CLOVER VALLEY, Elko: F. Thomson, M.; W. B. Reynolds, S.
DOUGLASS: A. B. Bales, M.; S. A. Kinsey, S
EAGLE VALLEY: G. W. Chedig, O.; A. F. Gilbert, S
ELKO: J. A. Tinker, M.; J. L. Keyser, S.
HALLECK: J. S. Fenn, M.; M. Geary, S.
MERRITT, Mason Valley, Esm'lda Co.: Kimber Cleaver, M.; Clark Cleaver, S.
PARADISE: J. Bradshaw, M.; J. P. Mullinix, S.
LAMOILLE: H. A. Young, M.; H. M. Truman, S.
STAR VALLEY: W. W. Griswold, M.; C. J. Whitney, S;
WELLINGTON, No. 6, Esmeralda Co.: A. H. Hawley, M.; J. N. Mann, S.
WINNEMUCCA: W. B. Hasbell, M.; H. Barnes, S.

California State Grange—Place of Meeting.

The fourth annual session of the State Grange will begin on Tuesday, October 3d, at ten o'clock A. M., at "Council Hall," Improved O. of R. M.'s building, on Post street, opposite Union square. Every arrangement is being made to provide for the comfort and convenience of Patrons attending this meeting of the State Grange. The hall is large, well ventilated, and in every way suitable for our purposes. A large and elegantly furnished parlor is provided for the ladies, to which they may retire during the sessions of the Grange, if so inclined, and which will give our sisters an opportunity to become better acquainted with each other. Well appointed committee rooms are also provided. A large supper room in the same building, with ample accommodations for all, will be used for the Feast of Pomona. We hope that our brothers and sisters in the country will assist us in the proper decoration of the hall, by bringing or sending sheaves of grain, stalks of corn, evergreens or other decorations.

We call the attention of our fruit growers and farmers to the Feast of Pomona, and hope that from their abundance they will send enough to bountifully grace her shrine. All offerings should be sent to the State Grange, care of the Grangers' Business Association, 102 Davis street, S. F.

Bring your Regalia.—We wish again to impress upon the minds of all Patrons who are coming to the State Grange the necessity of bringing their regalia with them—Masters and other officers wearing their jewels. Fourth Degree members of the Order are cordially invited to be present. There is much important work to be done, and all should assist and labor for the good of our Order.

Grange Directory.—Preparatory to the assembling of the State Grange we print our usual Grange Directory in order that all may consult the full list. We have made all corrections so far as we could obtain them from our correspondence and the books of Secretary Adams. If any inaccuracies still remain we shall be pleased to be informed of them.

Wheat Growers to the Front.

There will be a meeting of the wheat growers at the hall of the Golden Gate Grange, on Monday, October 2d, at 7 o'clock P. M., which every considerable wheat grower in the State should attend.

The pecuniary advantages already obtained by the series of meetings heretofore held by the wheat growers can readily be estimated in dollars and cents.

But a few years ago, when wheat was commanding a better price in Liverpool than it has at any time this season, wheat was forced down in San Francisco to $1.35 per hundred. This season, owing to the firm, determined stand taken by some of the leading wheat growers, the price of wheat has been kept up here to $1.50 and $1.52½ per hundred pounds, making a difference of at least 15 cents per cental in favor of this year.

Assuming that the farmers have parted with one-half of their surplus crop, say 250,000 tons, multiply this amount by 15 cents per cental, and we have a total saving to the farmers so far this year of $750,000.

This shows what the farmers can do if they are true to themselves and in concert with each other.

This $750,000 saved to the farmers will pay $750,000 of debts due from the farmers to their local country merchants, a class of men who are doing all in their power to prevent farmers from realizing more for their crops than just enough to pay themselves for advances made to the farmers; by this course Mr. Country Merchant is enabled to keep the farmer in his debt year after year, and the farmer in the pitable condition of working continually for the merchant.

What a short sighted policy for the country merchant to combine with the speculators to oppress the farmers, on whom depends so much of their own success.

With a thrifty, well-to-do farming community, all other branches of industry would thrive in proportion; farmers could pay their debts more promptly, could purchase more of the necessaries and luxuries of life, could, in fact, be men and women, the peers and equals of all, instead of being the servile class, which the shrewd manipulators are striving to force upon us.

Come together, wheat growers; consult together, mature the plans you have inaugurated, act unitedly, be firm, and the victory is yours.

Farmer.

San Francisco, Sept. 20th, 1876.

From the Granges.

San Bernardino Grange.

Editors Press:—Among the things San Bernardino needs most is a good merchant mill; one that will make good flour out of good wheat. That we produce good wheat here has been proven beyond a doubt. It has taken the premium at the southern district fair in Los Angeles, and also the flour when made in their mills. Now, we want some man with means and knowledge of flour making to come here and we will insure a good business that cannot fail.

Our Grange is in a healthy condition and is moving in the matter of a warehouse and agency for a more direct trade between producer and consumer, believing that to be one of its prime objects and greatest good to the laboring class. At our last meeting we had a change of programme. Our Worthy Chaplain, Parson Cameron, conferred the degree of Husbandman on a class of two—Sister Anderson and Brother Onsterhout. This may appear strange now and possibly in future a little stranger.

San Bernardino, Sept. 13th. H. M.

Another Ship.—The Grangers' Business Association has chartered the wheat ship, *Glory of the Seas*, for £2 17s 6d., Liverpool or Havre.

In Memoriam.

CALAVERAS GRANGE, No. 182, Jenny Lind, Calaveras Co., Sept. 9th, 1876.

Whereas, We have been called to sustain the loss of our beloved brother, Taswell M. Pawley, Worthy Steward of this Grange, who has been taken from us by the relentless hand of death; therefore

Resolved, That in his demise this Grange has lost a true and faithful member, who was ever worthy of our confidence and esteem, and the community has parted with an exemplary and useful citizen.

Resolved, That while we sorrowfully deplore the loss of our brother, sadly realizing that henceforth we can enjoy his companionship in memory only, we tender our heartfelt sympathy and commiseration to the bereaved relatives in their irreparable loss, especially to Sister Pawley in her extreme sorrow and anguish, caused to her by this sad event.

Resolved, That the Secretary be directed to enter these resolutions on the record, and send a copy to the Rural Press for publication.—[Committee: R. Thompson, Miriam Rodgers, J. W. Kirk.

VACAVILLE GRANGE, No. 5, Vacaville, Sept. 2d.

Whereas, Our Divine Master in His all-wise Providence has seen fit to remove from our midst our Worthy Chaplain, Brother Longmire, he it therefore

Resolved, That in the death of Brother Longmire we are reminded of the uncertainties of life and the assurance of death which will overtake us sooner or later.

Resolved, That we extend our deepest sympathy to our afflicted sister and family.

Resolved, That a copy of these resolutions be spread on the minutes of this Grange, and a copy be presented to the family, and a copy be sent to the Pacific Rural Press for publication.—[Committee: M. Elliott, O. Wells, A. P Coburn.

Agricultural Notes.

California.

ALAMEDA.

Apples. — Livermore *Enterprise*, Sept. 14: Tassajara valley is not commonly known as a prolific fruit district, snch, however, appears to be the case. We shall visit there next week, attracted thither by the personal invitation of Capt. H. Fitzgerald. The captain called upon us last Monday, bringing with him as credentials from Tassajara 14 huge apples of the Gloria Mundi variety. Each of them weighed from one pound to one and a quarter, magnificent bakers and sound as a bell.

Tall Corn. — Haywards correspondent Washington *Independent:* The other day we inspected a corn stalk with corn growing on it, which measured between 18 and 19 feet in hight. There is about half an acre this size. It was raised on the farm of Dennis Mnlvelhill.

CALAVERAS.

Smoke.—*Citizen*, Sept. 9: Last Monday night, J. Bower's barn in Salt Spring valley was totally destroyed by fire, together with 30 tons of hay, several tons of grain, a new wagon and harness and farming implements. A horse kept in the stable was the only thing saved. Mr. Bower was away from home at the time. The fire is supposed to have originated from smoking in the barn.

EL DORADO.

Drying.—*Republican*, Sept. 7: Five thousand pounds of pears, prepared for drying, were placed in the Hulbnrd dryer, the first of the week, at one time. The company is turning out some magnificent dried fruit. It is a great pity there are not five or six such machines in the vicinity. We hope the company may be able to treble its capacity by another season.

LOS ANGELES.

Eucalyptus Wood.—*Herald*, Sept. 19: Yesterday Gen. Mansfield showed us an elegantly wrought goblet, made from green eucalyptus wood. The material has seasoned since the article was made, and in shape and texture it resembles laurel more than any of our native woods. The polish is perfect, and the grain is as finely knit as hickory. This shows that the eucalyptus may be profitably used in the mechanic arts.

MENDOCINO.

Hop Raising in Hopland and Ukiah.—*Russian River Flag*, Sep . 16: From reliable parties we have ascertained that the hop crop of this section will not this year average more than two-thirds the usual harvest. There are in Hopland and Ukiah about 294 acres of hops, in lots of five to 60 acres, besides many small patohes. Among the most extensive hop-growers is L. F. Long, of Hopland, who has 60 acres. His drying kiln is 40x100 feet on the ground, three stories high; one section 40x40 is of brick, where the heat is confined and the hops dried; another section 40x60 is of wood and used as a cooling room. The hops are taken from the field in sacks to the lower floor of the building; an elevator raises them to the upper floor; from this they are dumped and distributed over two cars, 20x40 feet surface each, which are run by machinery into the drying rooms; here they remain 12 honrs, when they are drawn ont, and by revolving sections in the bottom, are dumped on the second floor. After the hops are cool enough they are shoved into the press on the lower floor and made into neat bales of 200 ponnds each, and are then ready for market. The capacity of the kiln is 400 pounds every 24 hours. Mr. Long expects to dry and press 7,500 pounds this season from his own and adjoining hop yards.

MONTEREY.

Stock for the Fair.—*Democrat*, Sept. 16: As the contribution from this county, Jesse Carr sends to the State Fair four bull calves, seven months old, two yearling bulls and one eighteen months old, all which being the get of "Sixth Lord Oxford," and bred on the Gabilan rancho. Along with them goes the splendid cow, "Pet of Geneva." Mr. Carr's herd of Short Horns, to which these animals belong, is of the pnrest strain known to breeders, and now numbers over 50 head.

Fire.—*Index*, Sept. 14: A fire broke out last Monday on the Spence ranch, near the Lone Tree, and about five miles southeast of Salinas City, destroying, as nearly as can be estimated, 200 sacks of wheat, besides an old dairy house and a small stack of hay belonging to A. J. Abbott. The fire originated from smoldering embers left behind by a steam thresher which had been moved away at 10 o'clock A. M. the previous Saturday. We understand that the owner of the thresher has made satisfactory settlement with Mr. Abbott for the property destroyed.

NAPA.

Wine for Communion Purposes.— Napa *Register*, Sept. 16: Some time ago Mr. A. M. Crow, of Yountville, made a proposition to furnish unfermented wine for communion purposes to every church in the State, of whatever name, that will use it, *free of charge*. As a consequence, orders are continually coming to him from various parts of California for this kind of wine for the purposes mentioned, and he in every case not only furnishes the wine gratuitously, but seals it up hermetically in one pint and one quart cans, and pays the expressage and all expenses incurred in sending it to the church ordering it. Mr. Crow estimates the cost of furnishing the churches of the State with wine at $150 per year, but his desire to place temptation beyond the reach of many who have reformed from intemperate habits, makes the contribution a most willing one, and affords him great satisfaction. We are reqnested to say that applications for any quantity, however large or small, to be frnished gratuitously, can be sent to either A M. Crow, Esq., Yountville, Napa connty, or Rev. George Morris, Vallejo, Solano county.

Seizure of Giaque's Distillery.—The fruit distillery No. 187, belonging to T. A. Giaqne and sitnated at Hot Springs, Napa county, was seized last Monday by Depnty Collector Frost, of Sacramento, for violation of the revenue laws in shipping liqnors without stamps. The property seized is valued at about $9,000, and includes 650 gallons of proof spirits and 26,400 gallons of wine. The seiznre was made npon the complaint of agents Crane and Clark, and United States District Attorney Coghlan has been notified to begin proceedings for confiscation.

A Good Price for Land.—*Register:* Wm. W. Smith, a few weeks ago, sold his Spring Garden nursery, three and a half miles northwest of town, to Joseph M. Bassford, Sr., for the sum of $7,500. The amonnt of land in the tract sold is 13.88 acres though only about 11 acres is tillable land, the balance being in and bordering on the creek that runs through the place. Mr. Smith bought the place nine years ago, for $4,000, and has since devoted his attention to cultivating the soil, planting out trees and shrubs, raising fruit—cherries principally—until he has nearly doubled its value and sold it at an advance of almost 100 per cent. The buildings on the place are not of mnch account, but the land has been so thoroughly and skillfully tilled that the price paid for it is considered very reasonable. Mr. Bassford comes from Vacaville, where he has been living on a place of 160 acres, bought of Mr. W. W. Smith seven years ago in consideration of $6,000, and for which he now asks $30,000. Thus it would seem that both parties understood well how to make real estate appreciate in valne. Mr. Smith goes to Vacaville to live, where he still owns 165 acres of land, on which he has some 8,000 fruit trees. He will engage in fruit business.

SACRAMENTO.

Meeting of Grape Growers.— *Valley Argus*, Sept. 10: At a meeting of the grape growers of Brighton, held on Saturday last, the following proceedings were had: F. W. Redding was nominated and elected Chairman, and R. S. Locket, Secretary. On motion, each subscriber has one vote for each share of stock snbscribed to by him. Ordered that the matter of purchasing a building be referred to the Board of Directors. On motion the stockholders held an election to elect permanent officers, which resulted as follows: R S. Locket, President; T. C. Perkin, Secretary, F. W. Redding, Treasurer. Board of Directors—W. V. Miller, P. H. Murphy, Wm. M. Baker, A. Root, R. S. Locket, ex officio with Board. The Board met at Brighton and made the final arrangements for incorporation.

SAN BERNARDINO.

Sheep.—Riverside *News*, Sept. 9: The sheep business in this county is gradually dying out, principally owing, we suppose, to the increase of population and settling of lands which were once occnped by these profitable animals. There are not more than half the number of sheep in the county now that there was three years ago, and still the owners of flocks in some parts of the county say their sheep are dying on account of the scarcity of feed.

SAN JOAQUIN.

A Powerful Dredge for Union Island.—*Independent*, Sept. 12: When in San Francisco, recently, we visited Beale street wharf, where a machine is in course of construction in the inspection of which we were very much interested, from the fact that if it shall stand the test of trial and prove the snccess that its builders anticipate for it, the result must largely affect the prosperity of this connty. It is a dredging machine, built on a principle quite new, designed by Col. A. W. Von Schmidt, and being constructed by the owners of Union island, in this county, for the purpose of construcing a levee around the island, filling up the low spots, etc. Its principle of operation is to stir up the mud in the bottoms of the streams and pump it ont, in a liquid state, upon the land. The machinery is placed upon a boat 40 feet wide and 80 feet long, strongly built and made to draw two feet of water. It is fitted with a 60-horse power engine, with two cylinders, each 12 inches in diameter and 18 inches stroke, which drive a rotary pump placed between them. This pump is five feet in diameter and two feet in breadth, and to it is connected a huge pipe 18 inches in diameter, which passes up throngh the deck and with two tnrns descends into the mud on the outside of the boat. The pipe is made to slip like an extension telescope, so as to be able to have its bottom rest on the mud at whatever depth it goes, to 20 feet. Outside of this pipe, but working with it, is a shaft that rnns four cnters that rest on the mud and revolve rapidly, stirring it np underneath the enlarged mouth of the pipe. The suction of the rotary pump connected with the pipe draws the mnd through the pump and discharges it through a discharge pipe that extends over the side of the vessel, supported for 20 feet or more by a mast and guy chains. That the cutting may be uniform and at the same time extensive, the boat is made semi-circular on its forward end. On the outside of this circle a flat ratchet is laid, on which a carriage runs back and forth, carrying the pipe before spoken of. It is so arranged that this carriage is constantly rnnning back and forth, thus cutting ont a circle of 50 feet diameter, a little more than the width of the vessel. The machine will be completed this week and towed to the point where operations begin. The plan of the work will be to dig a trench with Chinamen where the levee is to be, throwing the dirt out in a small embankment on either side. The liquid mud and water will be pumped into this trench. The mnd will settle in place and the water drain off, and the same operation will be repeated until the levee is at the required hight. It is calcutated that one-third of the material pumped will be solid matter, earth and sand, the remainder water. The machine is said to have a capacity for pumping 100 cubic yards of material per minute, or 6,000 yards per hour—60,000 yards per day. Should it be capable of doing this, the available material would be 20,000 yards, sufficient to build an embankment 2,000 feet long, 50 feet wide at base, 4 feet wide at top and 10 feet high. In gallons the whole amount pumped in a day would be 12,150,000 gallons, which would cover an area of 37½ acres to a depth of one foot, and weigh over 50,000 tons.

SAN LUIS OBISPO.

Large Barn.—*Tribune*, Sept. 9: During the confinement of Jndge Steele by his broken leg, he has planned and built the largest and best barn in this county. It is in the rear of his residence, upon a sandy ridge with good drainage in three directions. The barn is 46x80 feet on the ground, the sides being 14 feet to the top of the plates. There is a central drive the entire length, with a tight, substantial floor. Upon the right is a row of stalls for 19 horses, and upon the left a feed room, harness room and mow for the hay. This mow, with the lofts over the stable and main floor, will hold over 120 tons of loose hay. In the feed room will be a bnrr feed mill run by horse power, and at some convenient point on the main floor a power hay cutter. All feed will be ground and the hay finely cut, thus making a large saving over the ordinary system of feeding long hay and whole grain. It is a substantial frame, with a shingle roof and fitted up throughout with doors hung upon top rollers. Its cost when finished will be about $1,800, all of which is money well spent.

New Nursery.—Mr. J. K. Vernon and Mr. Porter are going extensively into the nursery business. They are now engaged in budding 5,000 almond trees grown npon the farm of Mr. Porter, on the laguna, near Mr. Foreman's. They will import their roots for this year's grafting from Illinois, where they are grown at the smallest possible cost. The nursery will be located on Mr. Vernon's place in the "Beautiful valley," about four miles below town. Mr. Vernon is experienced in this business, and will no doubt make a success of it.

SANTA BARBARA.

Heavy Yield.—Guadalupe *Telegraph*, Sept. 9: James A. Norris furnishes us the following yield of his grain this year: From 18 acres he has harvested 583 centals and 80 pounds of wheat, or over 32 centals to the acre. Of barley, he secnred 778 95-pound sacks off of 40 acres, being over 19 sacks to the acre.

Produce.—*Press*, Sept. 9: It will do any one's eyes good to go down on the wharf to-day and see the great piles of sacks of beans that are stored in the warehouse awaiting shipment to San Francisco. There were 1,200 sacks of beans there this morning, all from the Patera; and as we came back three more wagons loaded with the same product were passed on their way to the wharf. Besides the beans, there were 300 sacks of flaxseed from the farm of Mr. J. H. Jacobs, on the mesa. This is the first shipment of flaxseed we have noticed from this place, and we are pleased to note that it evidences a good production.

Lemons.—*Index*, Sept. 7: After experimenting, Mr. Dana B. Clark has succeeded in raising a lemon of most excellent character. It was said that the climate or soil of this county was not suitable for lemon culture. Mr. Clark has shown that this was an erroneous opinion. He has presented us with specimens of the Sicily lemon, more than double the usual size, thin skinned, and not in the least bitter, even after standing as lemonade over night. These came from the first fruiting of trees four years old.

SANTA CLARA.

Something for Clings.—San Jose *Mercury*, Sept. 16: Everybody knows that we have in this valley varieties of the olingstone peach that are matchless in flavor. Of size large and flesh firm, they would be unequaled for purposes of preserving or canning, but for the pesky stone, which sticks tighter than a tick. G. W. Tarleton, an orchardist of this township, appreciating the value of this fruit and the obstacle to its use, has invented a knife that meets and masters the objection, and works to a charm. It consists of the blade of any common jacknife, with a short U-shaped blade set in at the point of the main blade. In cutting the peach in halves, the blade skims aronnd the stone, completely severing it from the peach. Our canning and frnit drying establishments are using these knives with the greatest satisfaction. The effect of this invention, for which Mr. Tarleton has applied for a patent, will result in more attention to the cnltivation of Orange Cling and other similar varieties of peaches.

SONOMA.

Price of Grapes.—*Democrat*, Sept. 16: The Buena Vista vinicultural society, M. Carriger, and Kohler Frohling, have commenced making wine. They are paying $12 a ton for Mission grapes, and from $15 to $20 for best foreign wine varieties.

TULARE.

Grain.—*Delta*, Sept. 16: A thousand tons o grain were lying at Delti a few days since awaiting shipment to the bay. Less than half the grain of the Mussel slough country has been hanled out, but is piled up on the ranches where it was threshed. There is evidently a lack of transportation. There is also danger that early rains may catch thousands of tons exposed. Our warehouses are full, and though the railroad is receiving very heavy grain freights and constantly putting on extra cars, it is impossible to meet the wants of shippers.

Broom Corn.—Vallejo *Chronicle:* Robinson, Fowler & Co. have just received 23 bales of broom corn from Tulare county which is said to be the finest everraised in the State. Grown on irrigated lands and under a semi-tropical climate, it is superior to any that can be produced in this region. This consignment already received is the first shipment of a number, 50 tons having been contracted for.

TUOLUMNE.

Peaches.—*Democrat*, Sept 16: The finest peaches we have seen this season were from Gallagher's ranch near Brown's flat. The aggregate weight of 12 was 10 pounds. The largest weighed 15¼ ounces and measured 12 inches in circumference.

Fruit.—*Independent*, Sept. 16: We have visited a few of the most extensive fruit ranches in this township, in which, from our personal observations and from what the fruit raisers themselves say (which is the better authority), the yield of the leading varieties of fruit this season will equal if not exceed the yield of such fruits of any year within the past ten—such as choice winter apples, pears and plums.

VENTURA.

Imported Pigs.—*Free Press*, Sept. 16: We learn that Mr. Charles Dunn, of Hueneme, is importing direct from England six thoroughbred Berkshire pigs, bred at Her Majesty Queen Victoria's Ibow farm at Windsor, England. We hope these pigs will bear their long passage around Cape Horn safely, as their arrival must be hailed with joy by the hog raising farmers of this county. This stock, of course, is most exceptionably pure, and the owner is to be commended for his enterprise.

Oregon.

The Harvest.— *Willamette Farmer:* As the present harvest draws towards a close we perceive that in all Oregon, as has been the case in California, the yield is much below the average. Fall wheat yields a poorer return than the "oldest inhabitant" knows of, and the spring wheat hardly comes up to the expectations entertained. Much of the winter wheat was partially drowned out by the continued winter rains, and this thinning of the wheat gave opportunity for the growth of weeds that choked the grain in some instances. Then there were some terribly hot days early in June, and at intervals through that month, that must have worked disaster to the forming heads. Coming after rains, as they did, these fervid spells blighted many of the grains, and in some instances caused the wheat to rust, as was the case on the farm of Mr. Delos Jefferson, near Salem, who reports that from this cause his yield was not over 15 bushels per acre, when it should, from appearance, have reached 30 bushels. Mr. F. E. Eldridge, of Fairfield, informs us that in that vicinity the fall wheat in many instances yielded less than enough to pay for harvesting, and gives the following facts: The Engle boys, near Gervais, cut 100 acres that yielded from three and a quarter to four bushels per acre; Smith, near Gervais, cut 60 acres that went but four and a half bushels; Wareham, of Fairfield, cut 90 acres that went but three bushels. The best yield he knows of is on the farm of D. M. Keen, at Fairfield, who realized about 30 bushels per acre. Mr. Eldridge considers it doubtful if the average yield of wheat on French prairie will exceed 15 bushels per acre. We may safely assume that the yield of wheat in Oregon the present year will be below any retnrns known in the history of onr State, which fact must be attributed to the very nnusnal weather that has prevailed for the entire harvest year.

Arizona.

Fruit.—*Citizen*: A few years ago not a cultivated grape, peach, apple or any of the ordinary fruits were grown in this Territory, and rarely were any brought into it, and then at prices which few people could pay; now delicious fruits of the kinds named are grown in some parts of Yavapai, in Maricopa, Pinal, some in Pima, and, we presume, some in Yuma. An excellent orchard is on the Hassayampa below Wickenberg, and several in Salt river and Gila valleys. Mr. Edward Bichard has again favored us with samples of the delicions peaches raised on Samuel B. Wise's farm below Sanford. He informs us that there are other fruits on that and other farms all the way up to and about Florence, and that grapes are quite plentiful. Tucson is well supplied with nice grapes at low prices, and also peaches good for cooking, and with cultivation would be very palatable for eating fresh from the tree.

Vegetation.—The conntry all about is covered with a new and heavy growth of grass and other vegetation since the rains. For many miles in every direction comes the same report about the rank growth of new vegetation—hill and valley alike covered with it. The gronnd is thoroughly soaked, and if no more rain should fall this year, pasturage would remain green and abundant. Perhaps no other section of the great interior of the continent is so highly favored with summer rains and renewed vegetation as southern Arizona.



Ideal and Real.

[Written for RURAL PRESS by PHILMORE.]

Ideal.

Far out on the ocean, on an island where palms
Are the harps upon which Æolia plays;
Where the valleys are rich with bananas and balms,
And the sweet breath of summer floats over the waves;
Around are the silvery sands glistening bright;
Beneath the blue waters the peris abide,
Far down in their coral caves hidden from sight,
Or over the waves in their scallops they glide;
Where no storm king in anger his forces combines,
To wreck the frail bark near its haven of rest;
Where flowers over blossom and tendrils entwine,
And the gay plumaged bird builds its soft, downy nest.
The cold storms of autumn never wither the flowers,
But the soft airs of summer forever prevail.
The golden fruits smile amid the green bowers,
And fragrance is borne on the wings of the gale.
In a home such as this, with those whom we love,
Who could not be happy when free from all care?
Surely never below, nor yet scarcely above,
Can we hope for another with such to compare.

Real.

Far out in the ocean, bleak, dreary and lone,
Is an island by verdure or flowers never blessed.
Spring, summer, or autumn, here never are known,
Their charms or their fruits are never possessed.
The roar of the ocean, the shriek of the wind,
The sea lion's howl or the yelp of his whelp,
The wars of the elements, all are combined,
To make the deep gloom, and the loneliness felt.
The grey, frowning cliffs beetling over the wave,
Like giant forms cut against a clear sky,
Are the specters of ocean ever haunting the brave,
As though the sea monsters could mount up so high.
Dark clouds hang over this island, oppressed
With the gloom that pervades it already to break;
The storm bird of ocean goes thither to rest,
But must sleep on the wing or be ever awake;
No rest for man, beast, or bird, is found there,
But hideous reptiles are hid in the caves;
While all that is pleasing in earth, ocean, or air,
Comes not near this island across the wild waves.

Centennial Chat—No. 7.

[Written for the PRESS by MARY MOUNTAIN.]

At the Grange encampment we were all satisfied that no other place could be found so cool and healthful, or rather so airy, for no coolness was to be had at any price; and yet we could afford to pity the city boarders when the fierce July days wasted all our courage and made the daily sight-seeing a dangerous task even for the strongest men.

The lady from New Orleans declared that the Philadelphia heat was intolerable and she must go home to cool off. The Texan editor scribbled away in his shirt sleeves, earning his bread by the sweat of his brow and vowing by the shade of his inkstand that he would never again stray so far from the comfortable latitude of his dear adopted State.

So our own last day came and our last dinner at the New England kitchen, where, with genial Mr. Ewer, we sat down to the brown bread and beans and all the old-fashioned fixings, served up on the crowded "back stoop" and attended by the friendly ladies in prim bodices and Revolutionary caps.

Once more we looked through the store of ancient relics and enjoyed the puzzled look of modern fashionables over big wheel, little wheel and warming-pan and the faded glories of the Navarino bonnets, camlet cloaks and green silk calashes.

This Homely Little House

Holds its own against the attractions of the whole world, and at midday needs a policeman to guard its treasures and dinners from a surging crowd that threatens to sweep all before it.

Often a close rank of people, reaching from the front door to the garden gate, patiently wait their turn to enter the low rooms already filled almost to suffocation, and we never saw such crowding at any other building on the grounds.

Some of the ladies in attendance are wide-awake Massachusetts school teachers and full of questions about California, meaning to go there soon as possible.

Everywhere we find people eager to learn whatever we can tell them of California affairs and very glad to receive a copy of the RURAL PRESS as a sample of our home papers; and the hearts of its editors would be glad in turn if they could know the heartiness of appreciation that always greets their paper.

The Women's Pavilion.

In the little brick engine house belonging to the women's pavilion, we had the pleasure of shaking hands with *a genuine lady engineer*, who is not only thoroughly at home in her business, but very brisk and bright about it, and of course is going to California when the Centennial is over. Her engine was gay with sweet flowers that went up and down, back and forth, as though taking active part in the grim business, and the merry engineer herself was neatly dressed and not the least bit smutty or greasy. She said that among all the ladies who visited her, only one had been horrified at her occupation and advised, with great emphasis, that she should quit such unwomanly work and go to teaching school.

This snug, flower-trimmed engine runs all the machinery in the women's building, and there are several looms weaving dress goods, carpets, shawls, scarfs, baby sacks and gay little bookmarks in red, white and blue. Then there is candy making, and I have to remember the young lady who cuts out the sugar plums as the sourest person I met, so it seems that sweetness of occupation is not always catching.

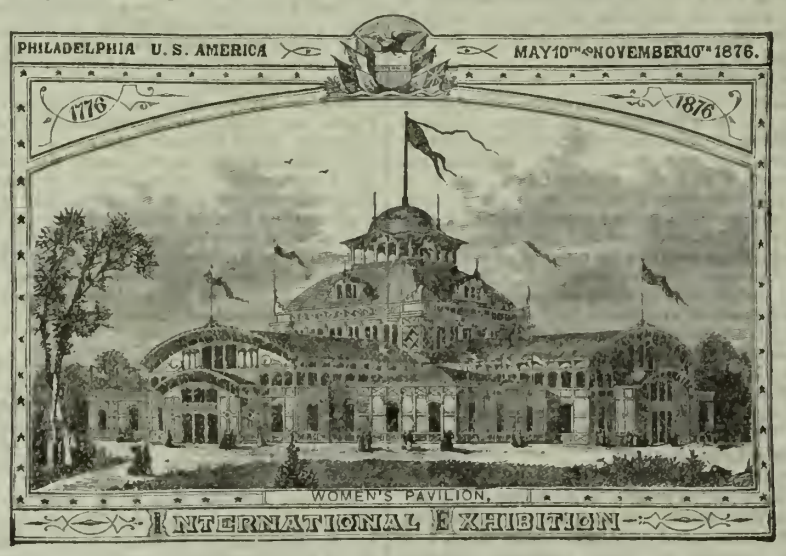
Some of the women are pleasant and friendly, others extremely snappish and defiant; but one can avoid the sharpness of a tired woman by admiring in silence the beautiful work that is often the result of hard study and endless patience.

There is a room whose walls are lined with books all written by women, and we find the honored, well known names along with hundreds not yet written on the scroll of fame. Passing on we find other walls lined with pictures in every style of art, contrasting with beautiful statues and works of design from the Cooper institute and other schools for women. In needlework there is the richest and best from all parts of the world, and a few notable cases from the royal school of art, where one may see curtains and draperies designed by the royal ladies and a few bits from the queen's own fingers. There are triumphs of dress-making that are almost dazzling, quite too fine to be worn by anybody but an ideal Flora McFlimsey, and not so interesting to me as the

Model Reform Garments

That are found at the rival stands of Mrs. Flint, from Boston, and Mrs. Hutchinson, from New York, differing in some particulars but alike in having all garments well supported from the shoulders. Every sensible woman ought to take an interest in this reform and help to introduce it.

Close by the reform garments are models of



cook stoves, dish-washers, darning-machines and various domestic labor-savers invented or improved by women.

It would take large space to mention all the oddities of fancy work, and the delicate beauty of some of these cannot be described.

Belonging to this class are the sprays of flowers and other ornaments made from fish scales, offered for sale, and orders solicited by the lineal descendants of Thomas Jefferson. Pretty hats, and flowers for trimming them, are made from corn husks by a Florida lady, and a fair-faced Indian woman sits there day after day fashioning pretty trifles from straw, grasses and basket stuff. Another lady is just as busy cutting flowers and various devices from paper, with a skill and rapidity that is wonderful. There are cases of natural flowers with shape and colors perfectly preserved; wax flowers equally perfect in their way; decorated ware, painted screens, wonderful laces of ancient and modern design, but it takes a keener eye than mine to tell whether they are yellow from age or from dipping in coffee.

The Native Flora of Northern Illinois,

Collected and arranged by Mrs. Hathaway, is a very interesting exhibit, also the North American mosses by Miss Watson of Ohio.

A box of most fanciful stationery is shown, with a label saying it is to be presented to the Empress of Brazil, and truly, I hope it may not suffer such a public snubbing as befell the elkhorn chair, heretofore mentioned.

The cabinet work of Christine Olson, a Swedish lady now living in Chicago, commands general admiration. She learned the trade in her father's shop, but in opposition to his wishes, and after his death continued the business for the support of her mother. Coming to this country she worked as house servant, but could not forget her favorite occupation, and making tools out of hoop-skirt wire and bits of old iron, she began carving in wood and soon made herself famous as a self-taught artist. She has on exhibition an organ, bureau and center table that are good proof of woman's right to work with tools, and are handsome enough to claim

"The Centennial Premium."

A paper is published here by women, and wishing to learn all about it I went to the counter where it was sold, and probably stirred up the wrong woman with my questions, for she looked very superior, and said that if I wanted a paper I could have it for 10 cents, and that was all she knew about it. Hoping to mollify her with the prospect of an "interview," I asked if she wouldn't like to *give* one of her papers to a sister reporter, but she turned her back upon me with a freezing look that came pretty near making a cool afternoon; and I wandered off to the neat old lady who had two of the papers for sale, and wants to go to California, and could I tell her where to find a book that would tell her all about that country. I directed her to the California building, where I am afraid she will not find a book of any sort, and then bought one of her papers, which is really a nice sample of journalism, but does not give the exact information a visitor is most anxious to obtain. What we seem to need is a Centennial daily after the manner of the *Mechanics' Fair Daily* of Dewey & Co., in San Francisco; for at times we all grope helplessly in the midst of this immensity, and feel that time is not used to the best advantage simply from not knowing where the most notable things are to be found.

For instance, I had heard of a famous historical character, but supposed it was only a dead bird served up on a perch with very dry stuffing; yet here, in agricultural building, alive as ever, one may find

Old Abe, the War Eagle of Wisconsin,

Looking venerable, with body and wings of dark gray and perfectly white head and neck. It is claimed that he is the hero of 25 battles, and never lost one, and he looks intelligent enough to enjoy his military reputation. The photograph and history of this fine old bird are for sale, and the proceeds go to the "Old Abe ornithological museum." The agricultural building is quiet and beautiful in its way, and the astonishing variety and novelty of the exhibits can hardly be realized without days and weeks of patient observation.

At one entrance agriculture seems all run to liquids, and up and down and across you see only bottles, bottles, fancifully arranged in all artistic shapes, and supposed to contain purest and best vintages from all wine countries, and samples of every known drinkable.

An hour was well spent in the Portuguese colonies of Africa, where they show a pre-historic giant with long and heavy weapons of war; native tools, drums, charms, calabashes, dozens of glass jars filled with varieties of seeds and with oils extracted from seeds; many samples of coffee; native fruits dried and preserved; cotton, and a simple little hand-loom that a child could lift, yet it makes good cloth, tufted and plain.

There are baskets woven in pretty colors; matting, plain, figured and plaid; more than 60 varieties of handsome native wood; flour, meal, farina, tapioca, corn, pickles, fans, grain, ropes from bark, grasses, a great variety of fibrous plants, nuts, sugar, from crude to refine, salt ditto, ditto, gums and resinous extracts, ginger, indigo, ocher, and excellent photographic views of Loando the capital, and of other chief towns of these colonies.

Passing on, we come to the

Gate of Honor,

Covered with prizes, diplomas and ribbons, and here Dom Pedro spent 20 minutes operating this easy gate, which almost opens and shuts itself, and every lover of a perfect gate must leave here his tribute of admiration.

From Liberia has come a curious machine for cleaning, separating and hulling coffee, and other things are similar to those from the Portuguese colonies. Jamaica has many attractions, and the native products are very tastefully arranged. A pyramid is built up of Jamaica rum in bottles, and another is trimmed around with logwood, annatto, Turk's island salt, coffee, seeds, preserved fruits, and the whole topped out with Jamaica ginger. A fairy-like hat and scarf are made from lace-bark, and beautiful bouquets from the cuticle of the dagger plant.

All through this immense building there are graceful pavilions filled with special products, and one of the most noticeable is

The Cotton Pavilion of Brazil,

With columns, arches and feathery plumes at top, all of cotton, the green and yellow Brazilian flags drooping at the four corners, while above swings a large silken banner, with the cotton plant pictured at life size, to help one realize the look of a field full of bursting cotton balls. Opposite, and in strong contrast, is the brown old Santa Barbara grapevine, also arranged in pavilion style, with bottles of wine at corners and pampas grass for trimming.

The different States have their own departments here, and it is extremely interesting to compare their different products separately and then as a whole with the similar exhibits from foreign countries.

New Hampshire has a very creditable exhibit, and furnished the cap-sheaf of enthusiasm for my fellow pilgrim, whose pride in his native State is only second to that for California, and fairly bubbled when he came upon samples of copper ore from his own town, even from Gardner mountain, where his boyish feet scampered among the falling nuts and kicked at surface lumps of this same ore, which was then supposed to be iron. Here was shown the fine yellow corn that makes the sweetest meal in the world, if we may trust to memories of the old-time Johnny-cakes; and the showing of grains with the yield per acre is very satisfactory indeed to one who remembers the native growth of rocks per acre that so sorely tried the early settlers and their boys.

But the point of interest is

The Webster Plow,

Made by Daniel Webster in 1837, and it looks like a rustic giant beside the dainty modern plow. The total length is 13 feet; length of beam, nine feet one inch; handles, six feet four inches; distance between handles, two feet ten inches; length of landside, four feet two inches; width of mold-board, 20 inches; width of share, 16 inches; from point of share to end of mold-board, five and a half feet. Writing of this plow, Daniel Webster says: "When I have hold of the handles of my big plow, with four yokes of oxen to pull it through, and hear the roots crack, and see the stumps all go under the furrow and out of sight and observe the clean, mellowed surface of the plowed land, I feel more enthusiasm over my achievement than comes from my encounters in public life at Washington."

Near by is a plow 120 years old, and it looks like a withered veteran beside the Webster plow. An old fellow, who squinted shrewdly among the relics, said that he once used a half-patent plow that would kick him out of the field and kick him after he was out.

A Work Dress.

[Written for the PRESS by M. E. TUTTLE.]

"To do work easily a woman must be dressed for it." I do think for a farmer's wife a neat fitting dark calico wrapper for working hours is the best thing out, and that much abused old dame Fashion has provided some of the trimmest styles that any one could wish. I obtained a pattern of one the other day that promises to be nearly perfect. It has seams extending up the front and back to the shoulder seam, and is cut in seven pieces without the sleeves and collar. It had, however, a very long train which I remorselessly cut off—no, not remorselessly—for I do confess to a few thoughts of how beautiful that sweeping train would look on a carpet. I know if Sister Mary Mountain was at home in her working clothes she would elevate her nose at such weakness, but then she, I have no doubt, is wearing trimmed dresses and tiebacks with the best of them at the Centennial, and will be none the wiser for this bit of gossip between you and me and the editor. By the way, I have waited patiently for her to find that lady who runs an engine in the women's department dressed in a handsome linen suit (the lady, not the engine, I mean). Now, my experience with engineers are that they are a sooty set, from the drivers of those polished beauties on the Central and Union Pacific down to the good, gray headed old man that runs a threshing machine engine that I know of. Not that they are any the less gentlemen because of the sort; no indeed, their souls look out of their eyes just as clear and bright as if they were not conscious that their faces were dirty. Now, if women can teach men to run engines without dirt it will be a great step toward that dainty refinement which some people are striving after. (Mary Mountain tells about the lady engineer in another column this week.—ED. PRESS).

But I was talking of wrappers, and as I have no carpet on my kitchen I must dispense with the train and make it short enough to clear the floor. I mean to put a ruffle at the neck and wrists, or a collar and cuffs of the same, and trim with bias bands or stripe trimming, and now, while prints are so cheap, one ought to have enough such dresses so they could look tidy all the time and not be bothered with overskirts and drapery and such trials, about home at least.

Just think of it, no tightness about the waist, no binding down of shoulders, no scratching of starched collars about the neck, no choking of breastpins at the throat! Then we can sing about our work and enjoy it.

A kitchen apron which I have seen, with a band that is buttoned back of the neck—saving the trouble of pinning a bib—would also be a great addition to this dress. These patterns can be easily obtained, and how much nicer for us to wear such garments than to imitate fashionables and wear the pleated burdens now so much in style.

Another Victim of Stock Gambling.

The following, written for the Oakland *Tribune*, (evidently by a friend of the deceased), tells the sad story that is too often repeated in the history of our city: Adam Roff committed suicide by shooting himself through the heart on Monday morning, Sept. 4th, in San Francisco. Deceased was a man of excellent parts, good business abilities, and fine social qnalities. He was 31 years of age, a widower, and the father of several children. He was an Englishman by birth, but long resided in Toronto, Canada, whence he came to California two or three years ago. He was one of a large number of brothers, all talented and thriving, and occnpying positions of responsibility in various ciiies of the United States and Canada. In Toronto, Roff had occupied the responsible position of freight agent of the Northern railroad, which he threw up in order to join a couple of his brothers here, and make his home on the Pacific ooast. He had money, and was indnced to invest in the great gamble-stocks. For a while all went well. When the bonanza fever raged, a year and a half ago, he invested in the new allurement, and was buoyed np with the prospect of becoming rich without the necessity of laboring for his wealth. A turn in the wheel, however, had dissipated all his bright anticipations, and the "bonanza" swindle has found him a snicide's grave.

When informing the writer of this of the good fortune that was his by reason of his investment, he was cautioned that he w is laboring under a delusion, and if he depended upon stock speculation for a livelihood, it would end in disaster. The caution was received with an incredulous smile, but here is the sad, tragic result. It is marvelous what a credulous, confiding creature is man, when his cupidity, his love of lncre, his thirst for wealth are appealed to. It is marvelons that the procession of human gulls should forever continue to present itself and be taken in and done for. What is there in the condition and climate of California that people should, day after day and year after year—through broken fortunes, shattered intellects and violent deaths—continue to place their hopes on the most wretched delusion that ever took possession of the nineteenth century.

How strong the passion must be, indeed, to seek a royal road to wealth, when so much is risked in the vain endeavor. The old Spanish navigator, who was so vain of his personal charms, did not seek more persistently the fountain of youth than the average Californian seeks the delusive fountain of wealth supposed to exist in the stock market.

There never was a community held in such terrible thralldom as this of the Pacific coast, by the well arranged machinery and well organized corps of the stock kings and brokers. If ever there was an evil that cried for redress it is this. Never did anything more foul, villainous and destructive appear on the face of the earth than the close, compact and wealthy stock organization of San Francisco. And yet, day after day, year after year, it is allowed to go on perpetuating itself, increasing its strength and destroying its victims. Fathers, mothers, sisters, brothers, widows, orphans, are alike victims of these Thugs of the stock board. No qualm of conscience or twinge of the heart strings, no reflection on the destruction, disaster and ruin they bring abont causes them to relent in their unhallowed careers. If they should pause for a while in their work of robbery and rnin, it is like the vnlture resting for a moment on the rock that he may whet his infernal fangs for keener rapine and more universal desolation.

The dreadful guilt of the pnrsuers of this business, who know no friends but to fleece them, no confiding customer but that he may be betrayed, no man of means but that he may be robbed, is dreadful. There is in Oakland a gentleman who was formerly engaged in this nefarions business, who had some conscience left, felt the evil that he brought npon his fellow beings and abandoned it the same as he would abandon a plague ship. Tears of joy now nightly flow down his cheeks as he communes with his God, that he had strength enough to abandon so dishonest a mode of life.

Where are our preachers, our judges, our senators, onr philanthropists, that go to make up the virtue and wisdom of a free and enlightened community, that they do not take counsel to put a stop to the plundering organizations known as stock boards, and to the intrigues, falsehoods and perjuries that are daily practiced to rob men and women of the fruits of their labor, and expose thousands to wretchedness and poverty, to shattered minds and wretched existence? Is it that our whole society is corrupt? Is it that the glitter of gold and the favor of the wretches who stop at neither assassination, death or other vileness to accomplish their ends, is too precious to be lost?

Oh, indeed, it is sad if there is not virtue and resolution enough in our midst to grapple with this giant evil and trample it to the ground forever. It threatens not alone those who are now here, and those who are coming, but the generations yet unborn. A savior of some kind is badly wanted. God grant that we shall soon see him. But let all who have any thonght of placing their hopes on stock speculations beware and take warning of poor Roff. His is not an isolated case. The number of similar fates is large, while the despoiled and wrecked are legion.

A CITIZEN.

YOUNG FOLKS' COLUMN.

Letters to Girls and Boys.—No. 15.

[Written for the PRESS by JENNIE E. JAMESON.]

DEAR GIRLS AND BOYS:—I went to a strange place the other day. Do you want me to tell you about it? My brother-in-law went to preach to the poor people at the county house, three miles from this city, and that was the place. The building is large and fine-looking upon the outside, but I do not think you wonld like to live there. People are sometimes discontented with their homes. I hope you are not, and that you will care more than ever for them after you read this letter.

In the school-room we found more than 100 people from three to 80 or 90 years of age, and such a strange collection of faces I never saw before. The children looked pale and pinched and sorrowful—just as thongh they had no one to love and pet them. I always pity such children and wish that they would learn to love Jesus, because He loves them better than any one on earth could do.

I wish that very child who reads the RURAL PRESS had a good home, a loving mother, and many other friends to love them. But remember, He who notes the sparrows fall will care for us if we ask Him in faith. The sermon was about the fifth verse of the 11th chapter of Matthew. After its close, and when we had sung several hymns, we gave the children some picture lesson papers, such as we use in our Sunday school. The old, white-haired people wanted them too, and they were soon gone. Then there was a little fellow outside crying away with all his might because he had none, so we sent him a card; then he was all right.

We went all over the house, and saw the sitting rooms with the wee babies in old-fashioned wooden cradles, the sleeping rooms with long rows of white-covered beds, and the dining rooms with white wooden tables, and wooden benches for seats; a plate, knife, fork, spoon and tin dipper being ready for each person.

In the kitchen there is an oven large enough to bake a barrel and a half of flour at a time. I guess they need such an oven, for they have 192 poor people, 30 lunatics in an asylum near by, their own family and the hired help to cook for.

Girls, how would you like to wash dishes for snch a family?

Away up in the fourth story we fonnd a man who was 100 years old last May, and was one of the smartest and most intelligent of the old people nntil he injured his head by falling from a team a short time ago. There he sits, day after day, looking from the window away ont upon the beautiful green hills and the fields covered with waving grass and grain. We hope he sees, by faith, a more beautiful country "where lie those happier hills and meadows low." In the hospital we saw some sick people—one sad, white face we never can forget, so pitiful was its expression. In the lunatic asylnm there were several who looked as rational as any one. One woman, with white hair tucked away under an old-fashioned white cap, came up, touched us on the arm and said: "I never started fur to stay here—was just going to my sister's over yonder; bnt, if you will believe it, I haven't got there yet! Was goin' this mornin', but they said I would have to go down cellar to get out, and I told 'em if I'd got to go down cellar I wouldn't go a step!" But when we were ready to go down to the first floor again, she was determined to go too, and they had to lock the door in her face to keep her back. They are all locked up in their rooms (which open each side of a hall running throngh the center of the building) a part of the time; but are permitted to go into a yard near the house. This is surrounded by a high fence to prevent them from escaping.

What do you suppose brought these poor people to the county f.rm? There are some good people among them, but the wife of the gentleman who has charge of the institution said that, in three-fourths of the cases, it was rum—"King Alcohol" it is called. Would you like to serve a king who would take away your happiness, your home and your food, cloth you in rags and force you to take refuge in a poorhouse? There was one man who might be enjoying a pleasant home in the city if he would. Some time ago he joined the temperance reform club, and his father gave him $2 a day as long as he would keep sober. But alas! he had formed, long years before, the terrible habit of drinking intoxicating liquors. He yielded to temptation and was soon in the poorhouse. Perhaps he began by snoking cider through a straw—many have begun so. One said, while waiting in his dark, lonely cell for the time—soon to come—when he should be hung for a murder committed when he was under the influence of liquor: "'Twas cider, sweet, insidious, that first my young lips tempted, making all else sure."

Oh, children! Beware of these small beginnings, which make such terrible endings. Do not think you must drink because others do. They are on the road to ruin, but that is no sign you should go too.

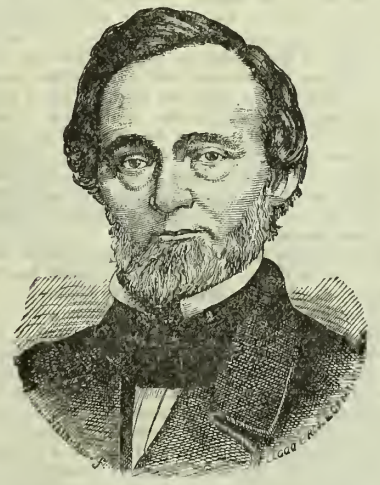
I recently heard a young man say that, as he was walking home from his work one day, he saw something lying near the railroad track. He went to the place, and what do you snppose he found? Two little boys so drunk they could not walk! He secured help and carried them home. I have wondered what kind of boys they were. I will tell you what I think—indeed, I am pretty sure that they were boys who thought it "mannish" to stalk about the streets with an old pipe or a stump of a cigar in their month. I think they would swear and drink cider and beer. It was not simply one step from the path of right to drunkenness; there were many little steps in wrong doing. Beware of the little wrongs.

GOOD HEALTH.

Dr. W. W. Hall.

Last spring we made a brief mention of the death of Dr. W. W. Hall. He was the founder and editor of *Hall's Journal of Health*, and has, we believe, done more valuable work in instructing the people in the principles of health maintaining than any other writer on hygiene. Our columns have been so frequently enriched by his writings that we have been at considerable pains to secure a portrait for publication, knowing that many of our readers would regard him as an old friend and be gratified to look upon his features. In connection with the portrait we print a sketch of Dr. Hall, published by the *Journal of Health* on the occasion of his death:

During 30 years he had not been ill a day. He had nearly attained his three score and ten years. In spite of a naturally frail physical organization, he might have attained an additional score of years. But few of the readers of the *Journal of Health* had ever seen the man whose name for a quarter of a century was a



Truly Yours
W. W. Hall

household word in thousands of intelligent families. Any impressions in regard to the personal appearance of Dr. Hall, based npon his strong and vigorous style as a writer, are likely to be erroneous. In stature he did not exceed five feet and a half, and he was qnite slender. In manners he was modest and unobtrusive, of pleasing address, and musical, earnest voice, which added force to his reasoning.

His death was instantaneous, as he had always foretold and desired. That it was occasioned by overwork cannot be doubted. His one and only dissipation was labor. It was no unusual thing for him to labor in his office for 18 hours of the 24. He took little exercise, because he had, or thought he had, no time to indlge in it. He achieved results because he labored untiringly. His published volnmes number about 30, exclusive of the 20 volumes of the *Journal*, which he edited without assistance. He was an able counsellor in matters pertaining to health, but failed to live according to the precepts which he uttered. Like other gnide-boards, he pointed the way through pleasant paths in which he never walked.

The writings of Dr. Hall have attained great popularity. His books have sold to the extent of hundreds of thousands, but he regarded the *Journal of Health* as his great life work. It was the first and most successful effort ever made in any country to establish a journal devoted to instructing the people so to live as to attain the largest measure of health and happiness.

Dr. Hall's last book bore the title "How to Live Long," and was a series of maxims, the observance of which on his part would probably have tended to prolong his life for many years. The constant violation of the very laws which he so nobly expounded unquestionably accounts for his sudden taking off.

Dr. Hall had a very extensive acquaintance throughout the country, and his unexpected demise will be widely and sincerely mourned. Upon none will the loss fall more heavily than upon his coadjutors in the management of the *Journal*, upon whom the active labor of its publication long since devolved, and who will continue it in accordance with its founder's frequently expressed wish.

DOMESTIC ECONOMY.

Baked Fish.

Scale, wash, and wipe dry inside and ont, a two or three pound fish. Make a stuffing as follows: One pint of grated bread; two tablespoonfuls of melted butter; pepper and salt to taste; one raw egg; a little celery salt; one onion, chopped fine, is to my taste an improvement, but can be omitted if not liked. Care should be taken not to wet the bread crnmbs; the egg and melted butter will moisten sufficiently. Tie over the fish thin slices of salt pork; fill a dripping pan half full of hot water; then, if you have not a wire grate, place the gridiron on your pan, and after laying your fish on the gridiron cover all with another pan; bake in a hot oven till the pork is well shriveled; then remove the upper tin, allowing your fish to brown. One and a half hours will cook thoroughly, if a steady fire is kept.

Sauce for same: Take half a pint of milk and the fish drippings mixed; a little salt and pepper; mix until smooth, two onnces of butter and two tablespoonfuls of flour; stir into liqnor when boiling; have ready a hard boiled egg, chopped fine, to add when ready for the table.

Cucumber Pickles.

Wash sufficient cucumbers to fill a three gallon jar; put on them a teacupfnl of salt, and cover them with boiling water. Let them stand over night, then pour off the water and wipe the cucumbers dry. Then pnt them into a brass kettle and cover them with vinegar; add a piece of alum the size of a hickory nut. Heat gently; do not allow them to boil, but keep them warm for three hours and then pour off the vinegar, which will be worthless. Put the cucumbers into a jar, and then take fresh vinegar and heat to boiling in a brass kettle, adding spice, mnstard seed and peppers to taste. Skim and pour it while boiling hot on the cucumbers. Let stand for 24 hours, then pour off and boil and skim the vinegar, following the boiling of the same vinegar for three successive days. Then pour it on the cucumbers and set aside ready for use. Good cider vinegar shonld be used.—*Mrs. J. P. Hall, in Western Rural.*

TOMATO SOUP.—Take two quarts of fresh, round tomatoes, scald and peel, without breaking; do not cut or fork them. Put into a porcelain kettle, or fire-proven stone vessel, add two quarts of boiling water, and a teaspoonful of salt, and set on the fire or in the oven, cover, and let them stew slowly three-quarters of an hour. Mix two tablespoonfnls of flour with a tablespoonful of butter, or a teacnp full of good cream, which has been boiled, stir into the soup, and let it boil together 10 minntes, and dish up with small thin slices of well toasted bread. Be careful to let the tomatoes remain whole, as you would oysters. A teacupfnl of grated corn added to the soup when you put in the flour, etc., will be an excellent addition, and render the imitation of oyster soup more complete. Simmer the corn only 10 minutes, if it is fresh and full of milk.

PLUM BUTTER.—Mrs. M. B. H., Goleta, California, writes to the *Inter-Ocean* the following recipe for plum butter: Look over the plums, discarding the bad ones; then wash them. Put them in either a tin or porcelain vessel and pour in hot water to cover them, but leave out the soda. Boil until the skins crack; drain off, and measure the water; put it in a tin pan or porcelain kettle with a pound of white sugar to every pint of plum water; boil and try it nntil it jells. I sometimes put in a little lemon extract while hot. You will find you have the clearest, nicest jelly you ever saw, and the easiest made. While the jelly is boiling, if you have time—but don't neglect your jelly and let it burn or boil over—you can rub the plums through a colander for your butter.

SUCCOTASH. — Take two quarts of shelled beans and put into four quarts of cold water in a covered iron kettle, with a half pound of salt pork; let them boil half an hour. Take 30 ears of green corn, out the oorn off the cob, scrape the cobs lightly to get all the juice and pulp. Turn the corn into the kettle with the boiling beans and pork, and let them boil together for half an hour, then add a quarter of a pound of butter, stir well and send hot to the table. This will make a dinner for eight hungry people, and is a good and nutritious dish that tastes of the grand old days that have gone by.

GRAHAM CRACKERS.—Wet the best of Graham flour with cold milk, adding about a fifth proportion of thick cream, or a little butter if cream is not to be had. Mix as soft as can be handled; knead very thoroughly, say 15 or 20 minutes; roll thin; cut in three-inch square cards; lay so they will not touch each other, on a hot sheet-iron pan, and bake quickly, say 10 to 15 or 20 minutes, according to thickness. Handle carefnlly while hot, and pack away, when cold, in tin cans or stone jars in a cool, dry place.

COTTAGE PUDDING.—One-half cup of sugar; one egg; one cupful of cream; one pint of flour; one heaping teaspoonful of Taylor's cream yeast. Bake in a cake-pan. To be eaten with a hot, sweet sauce, or with cold cream.

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Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, September 23, 1876.

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The Week.

The event of the week is the State fair at Sacramento. As we go to press to-day, Wednesday, the exhibition is at its hight. We shall be obliged to defer a review of the occasion until next week, when we expect to note the interesting features fully. We learn, however, from the telegraph and the local papers, that the fair is progressing finely with all the accompaniments of a throng of people and a full field and pavilion of exhibits.

The fair season of the agricultural regions is now fully inaugurated, and the weeks hence until the middle of October will shine on the fair goere. In another place we print a list of the fairs to come. We wish them all success, for we believe fairs rightly encouraged are a power for the spread of agricultural knowledge, for the excitement of laudable competition among producers and valuable as promoters of social enjoyment. We would like to meet our readers at all their fairs and note the features of their progress. But this will be impossible, and we shall trust our correspondents will be on the alert for us at the fairs, as they are in their homes and fields.

Work for Leisure Hours.

We spoke last week of the farmer's resting time and invited him to enjoy the comforts of visits and the freedom of the fairs. Only a few days elapse and we come to the subject of work again. Our resders may think that we are giving them but a short vacation. We do not do so maliciously. The nature of life upon the farm is such that he who lives it best must expect but short reepites from its cares and duties. We promise that the work we shall recommend will be of light, and, we trust, of satiefactory character.

It is timely now to make a review of the harvest year. It will be found profitable to study the results of the months of lshor and waiting. It is the season for the farmer to learn lessons from his successes and his failnres, and to shed the light of the years of experience upon the future doing. He is fortunate who is able to make his review with such data as a well kept record of work and its results affords. He who can figure accurately the cost and receipts of the different crops which he has grown will find his retrospection trustworthy and satisfactory. Even if he has lost he has the satiefaction of knowing it, and he is quite likely to bestir himself to discover if there be not some changes possible in his practice which shall turn the current of his affairs. We urge then the fitness of these days of leisure for a carefnl trial balance and inventory of farm accounts.

Another and an allied labor is the planning for the year to come. If the conditions of the farm admit of any divereity of crop, by all means let it be made. If there be doubt of the adaptability of the soil for some new and desirable crop, let an experiment he made in a small way. We find from year to year that we little know what our soil will do. It has been proved within the last two or three years that root crops, fruit trees, forage plants and other growths which are in good demand will flourish in regions which were thought wholly unfitted for them. It is the time now to study such eubjects as theee and discover if farm profits cannot be increased a little by the productiou of some new and desirable crop.

It is the time now to plan for the year in the way of investment. There will be in the hands of many farmers a surplus for investments as soon as the crops are sold. To those who are under obligations, we say, become free men by discharging them. To those who fortunately are masters of their own purses, we recommend the farm itself as a direction for investment, in preference to any of the schemes of stocks and various enterprises which so often "gang aglee." The farmer who owns his land has in it a bank and a treasure house which will return him a good rate of increase for any wise investment which he makes in it. The farmer's money has furnished the working capital for the larger part of the wildcat schemes and enterprises which have cursed the country and wrecked the prosperity of many men. If a farmer will put his surplus from year to year in his farm, building up its productiveness, extending its improvements, enlarging its comforts, promoting its natural beauty and attractiveness, he will find himself growing richer and happier; the vulture of the stock market will not be at his heels waiting for him to fall, and his family will be joyful and contented in the possession of a home, of which no gambling trick can dispossess them. Oh, the lessons are so many! The mortgages which lie thick upon many of our richest farming lands, should be a constant warning to our prosperous men to hold aloof from the almost certain delusions of the stock boards.

But while we deplore the stock tendency of the day we do not forget that stock is one of the very best directions in which the California farmer can employ some of his surplus earnings. Not the tissue paper stock of the city curbs and counters should win the farmer's patronage; but rather the noble and profitable live stock of the fields. Many of our lands will be immensely increased in productive value if the animal be brought upon them. And the beauty of the investment is that, in addition to the satisfaction there is in propagating fine stock to grace the pastures, there is profit in it as well and in the end the inveetment will return large rates to the live stock capitaliet. One of the most promising directions for change in our agriculture is in the wider introduction of fine stock upon our farms. Not the old-time wild system of herding is now to be restored, but the more enlightened system of maintaining a few animals well and breeding them intelligently should receive the attention of all those whose lands are at all fitted for the enterprise.

There is one thing we would mention further in this connection. It is now the best time to make arrangements for the winter shelter and feed for cattle. The hay crop was abundant and is now held in large quantities and at low prices. To those who have stock to winter and have not hay of their own cutting, now is the time to lay in a supply. If we should have a winter like the last it will not take the hay market long to profit by it, and cattle will have to be starved or wintered at a loss. It has been a year of such heavy feed growth throughout the State that we trust we shall not hear of the perishing of stock as last winter. While the leisure is abundant we would also suggest the planning of shelter for the dairy cows. A cow cannot make the best use of her feed if she is at the mercy of the cold rains and fogs and winds. We greatly need in this State a wider investment in dairy barns. There are some which are very commendable and there should be more.

Tree planting time will soon be here again. It will be wise to plan now for the planting. Choose the locations, make decisions as to what kind of trees are best adapted to your conditions and needs and engage them early from the nurserymen before the stock shall be culled. While time lingers let the patient wife tell her lord of the changes and improvements which she desires in her department of the farm and home, and let him plan for his own peace and happiness by granting her gentle requests.

Farm Machinery.

One of the greatest leaks in farm economy may be found in the neglect into which machinery falls when the immediate time for its use is passed. We doubt not that many a reaper and header may be found to-day where Putnam left his plow, just in the place where they were last used. It may be permissable, when one's country calls, to leave the plow in the furrow, but in times of peace and leisure to leave a valuable farm tool in the open weather is a careless regard for value which is not economical, to say the least of it.

This subject has received quite a generous and vigorous handling from Eastern agricultural speakers and writers for years. The result has been a more general housing of machines, although there is still room for improvement. We do not have the Eastern winter; the snow does not whirl around the abandoned separator, nor apply a heavy compress to the plow and harrow in the fence corners. But we have something which can be regarded as hardly less ruinous to exposed machinery. The continued moisture of the rainy season is an insidious foe to both the wood and iron of the implement.

The farmer uses machinery which far exceeds in cost the tools of the common mechanic, and yet the mechanic would rise at midnight to save a handsaw from exposure, while the thoughtless farmer will allow all his harvesting machinery, which cost him hundreds of dollars, to lie a twelvemonth subject to the disintegration of the elements. These things ought not to be so.

As a sample of the care that machinery should have on the farm we quote from the *Canada Farmer* the following recommendations for storing a reaper: "Not only should the reaper and mower be protected from the alternations of weather, that is, kept in an enclosed place, the barn, shed, or, better still, an implement house erected for the purpose, but the manner and condition in which they are laid away must be very carefully attended to as well, if their future usefulness is expected or desired. First of all, then, let them be well cleaned and dried, observing to pick away all tufts or blades of grass that may have become entangled amid the iron gearing; for wherever these are found, moisure is not far off; and moisture, iron and air in contact, mean simply oxidation or rust.

"Remove the cutter bar. This is by far the better plan, for it obviates the sagging and twisting which usually follow either a folding up of the bar, or the more common practice of letting it lie in cutting order on the ground. Wipe every portion of the iron-work perfectly clean. For this purpose common coal oil is very serviceable to loosen and dissolve any oil that may have caked about the joints or axles. Dry thoroughly, and give the whole a light coat of good sweet oil. The wood-work may be treated in the same manner with the best results. The whole job may be accomplished in an hour or so, and at an expense of about ten cents, yet by this hour's labor and insignificant expenditure at the proper time, you do more to preserve your machine in good order than could be secured for twenty times the amount had it been left, as so many are, uncared for and exposed." This advice of our contemporary will apply to nearly all of the more complicated and expensive of farm machines. We trust that useful hints may be taken from it by any who may need them.

WEST SIDE IRRIGATION.—The first results of the preliminary surveys for the West Side irrigation project come to hand in the Antioch *Ledger* of Sept. 16th. It says: Commissioner Williams, of the West Side irrigation canal returned home Thursday evening after an absence of two weeks, with the other commissioners, with the surveying party under chief engineer Hall. Mr. Williams says all doubts of the final success of the movement are dispelled by the thorough survey of Tulare lake. Engineer Hall is more than pleased with the result, which shows there is an abundance of water in the lake for irrigation of the entire district and that the water can be taken direct from Tulare lake, notwithstanding the many contradictory statements heretofore made regarding this point. The residents of the valley without exception express themselves as exceedingly anxious for the success of the undertaking and have contributed beyond their means to have the survey made.

QUERIES AND REPLIES.

Borers and Rabbits.

We had a call during the week from W. M. Hsynie, of Sacramento county. Mr. Hsynie has noticed in this column methods for destroying borers and saving trees from rabbit gnawing. He has had practice with both these pests and his belief and practice with them is as follows: Borers, he believes, only attack a tree when it begins to lose vigor and show signs of weakness and sickness. To guard against borers the grower must keep his trees strong. If a tree is kept growing strongly from the time it starts in the spring until it becomes dormant in the fall he has no fear of borers. In his orchard, on the open plains of Sacramento county, he promotes growth by irrigation. He mulches with straw and keeps the ground pulverized by thorough cultivation. To irrigate a tree he draws away the loose dirt around it, forming a hollow three or four inches deep. Into this he pours four or five pails of water and then draws the loose stuff over it again. In this way the moisture is kept from evaporation and held where the tree can use it. He has only found it necessary to irrigate his trees four times in a season and the work is so easy that he and a boy have served 100 trees in a day. He believes that a great deal of unnecessary work and water are used in efforts to distribute water all over the orchards. The success of Mr. Haynie's treatment may be found in the condition of his trees. Others not far away are infested with borers, while his show marvelous growth and strength and, as he says, he "does not have to punch the heart out of his trees with wires nor cut away the bark with a jack-knife." This is Mr. Haynie's doctrine on the borer question. It is a matter of general observation that the more vigorous a tree is the less likely it is to be attacked by pests or else withstands their attacks better, and it is to the advantage of every orchardist to keep his trees healthy and strong, but Mr. Haynie's practice, effective as it is in his case, we do not believe will secure freedom for all trees unless efforts for vigorous growth be supplemented by other precautionary watchfulness and quick remedies.

For the treatment of rabbits in orchards, Mr. Haynie has a method which gives him success. First of all, a rabbit-tight fence is effective, but not having this he treats the visitors as follows: He takes pieces of watermelon, canteloupe or other vegetable of which they are fond, sprinkles them with strychnine and then scatters them around in his orchard. Rabbits will not touch the bark as long as they can find this bait, and one meal is effective, for the rabbit never gets far away from it. He finds eight or ten rabbits, frequently, mornings, and buries one at the roots of each of his fruit trees and turns the pest to good account, for the bones and flesh go to make an excellent fertilizer for the trees and cause a surprising growth. Of course, in applying this strychnine remedy one must be careful if he have any stock or poultry about. Mr. Haynie finds his poison treatment so effective that he does not care how many rabbits come into his orchard. He considers the carcasses worth ten cents each to the trees and says he would not mind having a hundred a day.

Growing Cranberries.

EDITORS PRESS:—Have you anything, or do you know of anything in print which is a reliable guide to cranberry culture on this coast? I desire to engage in that business in this county, and am without practical knowledge. Also, can I get plants from any of the seed stores in San Francisco?—WM. AYRES, Eureka, Cal.

We know of nothing in print which can be called a guide to the practice of cranberry growing under the conditions which prevail on this coast. We have printed in the RURAL PRESS, from time to time, brief items of experience, but the growing has not been sufficiently tried here to warrant any general guide to practice. All that has been done so far with the plant in this State has been in the way of experiment, and we shall be pleased to hear from our readers if any of them have recent experience to relate. We presume our querist knows already the conditions of soil and general culture which are requisite. Now, we cannot advise him better than to proceed with his enterprise, beginning on rather a small scale, and gain his knowledge by experience.

We believe there are no plants in the market here, but our seedsmen will obtain them on order.

Plum for a Name.

EDITORS PRESS:—I send you to-day by mail two plums or prunes. Will you please inform me through your paper of which variety they are? The tree came from John Kelsey in a mixed lot bought for German prunes. Is the above a good plum or prune for drying purposes?—R. F. BRADFORD, JR., Portland, Oregon.

We do not recognize the plum, nor can we find any one who will assume to name it. It resembles the Ickworth most nearly, but there are some points of difference. It is not a prune. For drying we think it would do well to dry whole, and it could be sold to advantage as a substitute for prunes. The flesh is very rich and would, we think, make a very good dried plum. There is some demand for these dried plums, unpitted, to take the place of genuine prunes on boarding-house tables, etc. This year the plum crop is very heavy and the price of dried fruit is low. If there should be a shortage of crop any year, we think plums like the sample could be dried with profit.

The Plowing Season.

The passing of the months brings us again to the time when plows occupy the thoughts of the farmer. Of course weeks will yet elapse before the rains will fit the soil for working, but while the season waits the farmer should make his decision concerning the implements he will use when the busy time comes.

It has been our custom to keep an eye on the establishments which minister to the farmer's need for machinery, and secure engravings of all new implements which are introduced. We find that Frank Bros. & Co., of 349 Market street, San Francisco, are gaining large sale for a plow which we have not yet illustrated in the RURAL, and we give an engraving herewith. It is the "Buford iron gang plow," and the picture gives a faithful representation of it. Throwing aside the coulters and it appears quite ready for work in California fields.

There are several excellencies claimed for this plow: The framework and beams are entirely of iron, the mold-boards of patent cast steel made in perfect duplicates and interchangeable. The plow is controlled with only one lever in front of the driver, with which, and his weight, the gangs can be lifted clear of the ground, for turning with the slightest effort. When set to plow the beams are locked rigid, so that the plows cannot be thrown out when working in the hardest ground, or striking an obstacle. The frame is furnished with two screws, one on each side of the driver, which he can operate without leaving his seat; with these screws the depth of the furrow can be regulated and the plow made to run level even on sidehills. The horses, in any number desired, are worked in pairs. The whole plow is so strong and simple that there is no danger of any part giving way or getting out of order, and an experienced hand is not required to work it.

Several hundred of these plows have been sold on this coast, and Frank Bros. & Co. have letters from all parts speaking of its satisfactory workings. It has been tried in all soils and we have seen testimony that it scours perfectly even in the worst abode. We are informed that the price of the plow complete with whiffletrees, extra shears, etc., is $100. The firm have a large stock of the plows on hand for this season's demand, and give a guaranty that the implements shall do perfect work or be returned.

The Centennial.

We have been giving our readers, from week to week, quite full descriptions of the several features of the great exposition. Apart from matters of description, the news from Philadelphia is that since the cool weather has begun there has been a marked improvement in the attendance and the daily receipts have considerably increased. Great numbers of people have waited for this more bracing weather to enable them to endure the journey and the tramping. Others, and of this class the farmers of the country form the larger part, have waited until the harvest was gathered. The prospect now is that the closing weeks of the exposition will be its best weeks. The announced time of closing is the 10th of November, so that there yet remain about seven weeks of open show. In this connection we are informed that the fare for the round trip, from San Francisco to Philadelphia and return, has been reduced to $246.80. This is a reduction of about $20 on the trip, for which the public are indebted to the roads east of Omaha. The concession will aid those who make the trip to bear the expense of tarrying at Philadelphia. We think it is not too late to enjoy and profit by the Centennial. Let those go who can; it is the occasion of a lifetime.

The Capacity of the Alden Factories.

EDITORS PRESS:—Thanking you for the very kind notice of our display at the Mechanics' fair, we beg to call attention to the great error (a misprint probably) which, if not corrected, will make the Alden business appear quite insignificant. The printer gives to the Alden machines (52 in number) now in operation on this coast, a capacity of 50,000 pounds each season, while the fact is that that number of Alden machines will work up 5,200 tons of fruit and vegetables in each season, or 100 tons to each machine.—ALDEN FRUIT PRESERVING CO. OF CAL.

We regret the error; the true figures are so much better.

INFLUENCE OF THE RURAL PRESS.—The New York *Independent*, one of the most carefully edited and widely circulated newspapers in the country, makes up nearly one whole page of its last issue with quotations from the RURAL PRESS, most of which are duly credited. While the fact is, of course, highly gratifying to us as journalists, we refer to it more to show the interest which exists at the East in California agriculture and the success which the RURAL PRESS attains in ministering to it.

ON FILE.—"Inquiry Concerning Grapes," H. J. D.; "Centennial Chat," M. M.; "Reese River Valley," A. C. K.; "In Memoriam," Hamilton Grange; "Inquiry for Dressing Birds," A. M. D.

THE AGENT of the PRESS who recently visited San Mateo county is now off our list.

A Lifetime of Well Doing.

Readers of the RURAL PRESS have remarked the vigor and finish of the writings of Mrs. C. I. H. Nichols, which have appeared in our columns from time to time. From the labors of her pen the conclusion has been drawn that she is a lady of no common rank, and such is the fact, for her life has been the arena of more vigorous and successful work for the right than usually falls to the lot of well-doers.

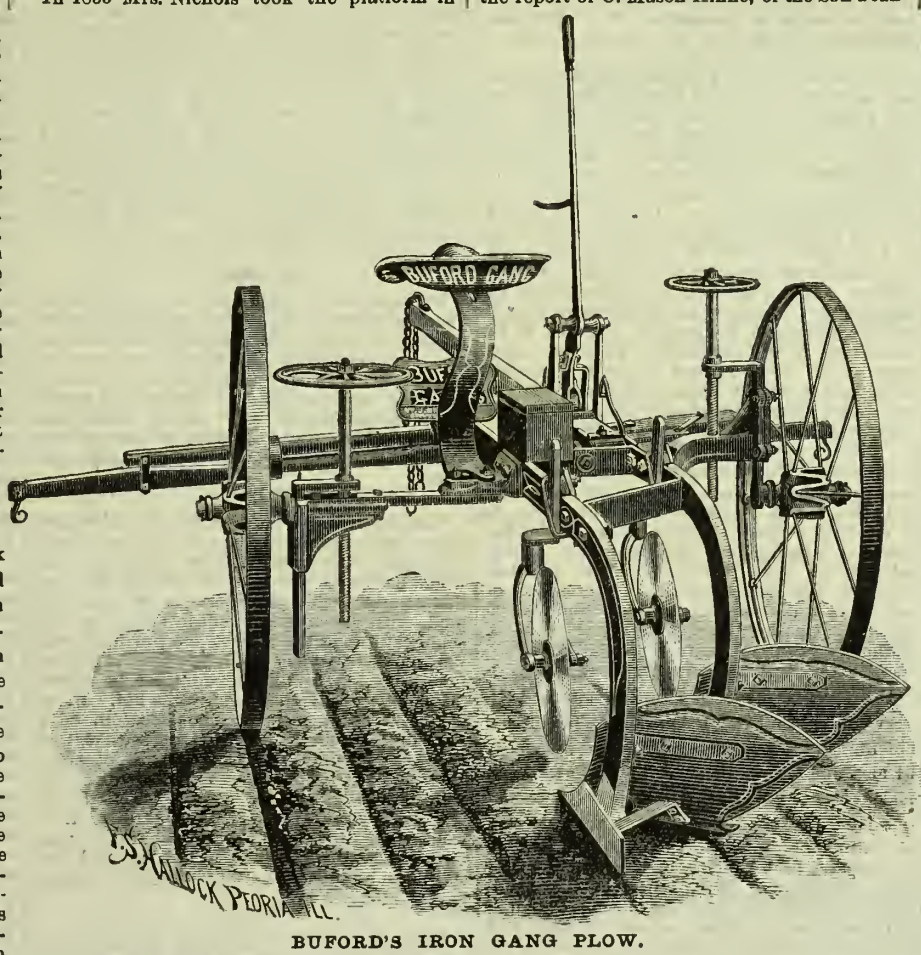
We have lately been put in possession of some facts concerning her life which we will share with readers of the PRESS. Mrs. Nichols is a woman of rare talents and of peculiar bravery in the execution of measures which appeal to her sense of right and justice. She was born in Townshend, Vt., in 1810. In 1835 she set out for Herkimer, New York, and established a seminary for young ladies, which still flourishes as a monument to her early efforts. From 1840 to 1853, Mrs. Nichols edited the Windham County (Vt.) *Democrat* with marked success. We have lately seen a gentleman who was acquainted with her career at that time. His remark was: "I tell you, sir, Mrs. Nichols was the smartest woman in Vermont."

In 1853 Mrs. Nichols took the platform in behalf of the "Maine liquor law" and canvassed the States of Vermont and Wisconsin. At this time she also assumed the advocacy of woman's equal rights with man before the law, and several important modifications of legislative enactments in Vermont were accomplished chiefly through her labors.

In 1854 Mrs. Nichols visited Kansas, and in 1857 moved thither. At the time of the formation of the Kansas constitution she canvassed the State, making stirring addresses in favor of the equal rights of woman. She was invited to address the State Constitutional Convention and the Legislature several times on subjects of this nature. Mrs. Nichols' work for the rights of women were directed chiefly to realizing in the laws the practical rights to which she believed women were entitled. Some of these were the right to her own earnings and equal right to the guardianship of her children. Her efforts are perpetuated in the Kansas constitution in the shape of a right granted to women to vote in school matters.

At the time of the Kansas troubles Mrs. Nichols made speeches in Connecticut, New Jersey, Pennsylvania and Vermont in behalf of the people of Kansas, securing valuable contributions and molding public opinion in favor of a free State and free homes in a State which the slave power was struggling to possess. During the war Mrs Nichols held a responsible position in the treasury department at Washington, and was matron of the colored orphan asylum.

Thus during the long years was she engaged in labors of right and charity. In 1871 Mrs. Nichols came to California. Though now 66 years of age, she is in full possession of the talents which she has used so well. She was married twice and has four children: Mrs. Gen. Frank Davis, of Cavendish, Vt.; C. H. Carpenter, of Wyandotte, Kansas; A. O. Carpenter, of Ukiah, Cal., and George B. Nichols, of Ukiah, with whom she resides. We trust that many years yet remain to crown this lifetime of well doing.



BUFORD'S IRON GANG PLOW.

Jumping Seeds.

During the past week considerable wonderment has been created by the appearance of small minute seeds, which keep up a continual jumping, as if possessed of life and animation. To give them a name has baffled all our doctors and scientists, and curiosity has run wild to know what they are, and what makes them jump. We have thought over the matter and tried to explore the mystery, but can only arrive at the conclusion that they are parasites that grow on the oak leaf, and when ripe fall to the ground. The life which is exhibited is, perhaps, derived from a combination of animal and vegetable matter producing electricity. They are picked up in various parts of the city, on the ground under oak trees. Some of them have been corked up in vials for over a week and still they jump.—*Chico Enterprise.*

These "flea seeds" were brought to notice some two years ago, and were described at length in the MINING AND SCIENTIFIC PRESS and PACIFIC RURAL PRESS. It seems, however, that they have made their appearance in Butte county, and are the object of some curiosity, being considered something new. As a matter of general information we give an illustration of the "seed" and the insect, and extract from the report of C. Mason Kinne, of the San Francisco Microscopical Society, who followed their development through to the perfect insect. He says:

The seeds are very minute, presenting the appearance of a mustard seed, and are of a brown color. On placing them in the open hand the "seeds" jump about from one place to another in a very lively manner. Even when in a vial or small bottle the same characteristic



CYNIPS SALTATORIUS.

is manifest, and as they were somewhat peculiar the "flea seeds" have attracted considerable attention.

The gall or cocoon is found lightly attached to the leaf of the oak, and in time falls to the ground, when the noise occasioned by the thousands leaping about, without any apparent cause or organs of motion, sounds very much like the falling of fine rain on the leaves. An examination shows that the extraordinary activity displayed is caused by the spasmodic contraction and concussion of the abdominal parts of the occupant against the side of the shell, which movement does not cease even after the covering is nearly split in halves, if the tender structure of the chrysalis be not injured. That it is the chrysalis and not the larvæ has been shown by the microscope, and its change to the perfect insect has been noted at weekly stages.

The average length of the insect is five-hundredths of an inch, and in each has been found from 60 to 80 pear-shaped ova. The engraving gives its general appearance, with wings raised somewhat unnaturally, for the purpose of showing their size and shape. It was drawn on the wood, from the microscope, by Mr. Kinne, and is enlarged 20 diameters. Its ovipositor is a tiny, though perfect, piece of Nature's mechanism, and lies encased in a sheath at the lower part of the abdomen. Mr. Henry Edwards, of the Microscopical Society, furnished the following technical description of the curiosity:

GENUS CYNIPS—*L. Cynips Saltatorius* (nov. sp.)

Black, shining. Head broad between the eyes, which are very prominent. Antennæ 14-jointed, the first and second joints being much swollen, and the third joint larger than the other two; the remaining joints are long, simple and nearly equal. Thorax densely but finely punctured, very globose in front, projecting so far as to almost hide the head. Abdomen globose, shining. Ovipositor cases, short, spatulate received into margined groove in the body. Ovipositor itself flesh color, curved inwardly towards its middle. The abdomen is six-jointed. Terminal joint of palpi, hatchet-shaped. Tarsi very hairy throughout, the anterior pair with six and the remainder with seven joints. Coxæ very globose. Tibæ long, with large and powerful spines at the base.

The Coming Fairs.

Now that the Mechanics' fair reaches its conclusion, and we bid adieu to our friends and patrons of the Pavilion, the thought comes of the other fairs which will be held in other parts of the State during the next four weeks. We are informed that the prospects for full and interesting meetings in the different parts of the State are very fine. The State fair at Sacramento next week promises to be one of the best ever held by the society. Exhibitors have declared their intentions freely, and applications for space have been large. We can earnestly recommend all our patrons to continue the work of exhibiting by appearing before the new audience at Sacramento.

Nor would we forget the county and district fairs. To the north as far as Siskiyou, and southward to Los Angeles, the region of the fair extends. Intervening counties will also join in, affording opportunity for instructing and entertaining the people with industrial exhibits. We print herewith a list of the fairs to come, and recommend them all as worthy of patronage and attention:

California State Fair, Sacramento, from Sept. 18th to Sept. 23d.
The Southern District Agricultural Society, Los Angeles, from Oct. 5th to Oct. 14th.
Nevada State Fair, Reno, Nev., from Sept. 11th to Sept. 16th.
Sonoma and Marin District Fair, Petaluma, from Oct. 9th to Oct. 16th.
Oregon State Fair, Salem, from Oct. 9th to Oct. 16th.
Northern District Fair, Marysville, from Oct. 9th to Oct. 16th.
San Joaquin Valley Agricultural Fair at Stockton, beginning Sept. 26th.
Contra Costa County Fair, Pacheco, from Sept. 25th to Sept. 29th.
Monterey Agricultural Fair Association, Salinas city, from Oct. 11th to Oct. 14th.
Santa Clara Valley Agricultural Society, San Jose, from Oct. 2d to Oct. 7th.
Humboldt District Agricultural, Mining and Mechanical Society, Winnemucca, Nev., from Oct. 2d to 6th.
Santa Clara Valley Agricultural, San Jose, first week in October.
Siskiyou County Agricultural Fair, Yreka, from Oct. 11th to 14th.

—*Mechanics' Fair Daily.*

The Melon Sugar Enterprise.

We mentioned last spring the inception of a melon sugar enterprise on the Sacramento river. It seems from a correspondent of the Sonoma *Democrat* that the work goes bravely on. The location is at Isleton, six or eight miles above Rio Vista. The company have incorporated under the name of the California sugar manufacturing company, with a capital stock of $2,000,000. They have sold 50,000 shares and are putting up a building 120 by 48 feet, besides the engine and boiler rooms which are about 40 by 40 feet. The first story is of brick. The machinery was purchased in Germany for $10,000. The foundation of the building is already laid and the work will be pushed to a speedy completion. It is the design of the company to make some three grades of sugar out of the pulp of the melon, alcohol out of the refuse syrup and parts of the rind, and table oil out of the seeds. The melons will yield about ten per cent. of sugar and the seeds 25 per cent. of oil. Isleton, as the name would indicate, is built upon an island. It is known as Andros island. It is composed of land rescued from the tules, is rich, as such lands usually are, and is well adapted to the culture of melons. Beets grow to great perfection here, and it is the design of the company to add about $6,000 worth of machinery which will enable them to manufacture beet sugar. Mr. Josiah Poole, to whom we are indebted for the information here given, and who is deeply interested in the enterprise, showed us a field of eight acres from which a good crop of hay had been harvested, that now was growing beets that would yield from 30 to 40 tons to the acre.

The Vineyard.

Grape Syrup.

Among the efforts being made to utilize the grape crop of this season, none seems to promise better at present than the scheme to make the juice up into syrup for the table. Mr. J. C. Wineberger, of St. Helena, has got an evaporator from Cincinnati, at a cost of $155, which, it is thought, will have capacity to make 100 gallons of good syrup daily. It is estimated that to make this quantity two tons and a half of grapes will be required. Two men will be able to crush the grapes and attend to three pans. Hence the cost of 300 gallons of syrup will be about as follows:

For 7½ tons of Mission grapes at $10	$75 00
For labor of two men	4 00
For one cord of wood	6 00
Total	$85 00

The syrup will be worth at least 50 cents a gallons, or $150 for product which will cost $85.

Or if parties make their own grapes into syrup, 50 cents a gallon for it will be equivalent to nearly $20 per ton for grapes, and 75 cents per gallon to $30 per ton for grapes. The syrup is said, by good judges, to be equal if not superior to the article known as the best golden syrup.—*Napa Reporter.*

Mission Grapes.—As an evidence of the remarkable productiveness of the Mission grape, we were shown, to-day, an arbor in a gentleman's garden covered by these vines, that, at the least calculation, supports at least 1,500 pounds of fruit. On going under the trellises one will be astonished to see the great clusters, yet unripe, hanging so closely together that the under-surface is fairly covered with them. One cluster of three bunches was nearly as large as a common wooden pail. At a rough estimate we should say that the arbor was 25 feet square. Say the grapes upon it weighed 1,500 pounds (a small estimate), and you can calculate what an acre would produce. —*Santa Barbara Press.*

Useful Information.

To Clean Oil Paintings.

Pettenkofer of Munich discovered the process for cleaning oil pictures, and was rewarded by the king of Bavaria with a gift of 100,000 francs. Wash the picture gently, if it is dirty on the surface, with water and a sponge, and wipe quite dry with a soft cloth. Then take a wad of cotton wool in each hand, one wet with spirits of turpentine and one dry, and gently rub the surface, a bit at a time, with the wet cotton, and dry it with the other, changing the cotton as often as it gets dirty. Then get a box or tray made of wood, or cardboard for very small pictures, a little larger than the stretching frame and about three inches and a half deep, with no cover. On the bottom, inside, place a layer of cotton wool or coarse blotting paper, half an inch thick or less, and fasten it down with tacks or cross-strings, so that it will remain in place when the box is inverted. Lay the picture on the floor or on a table, face upward; saturate the cotton or paper with strong alcohol, making it quite wet, but not so wet as to drip; and then turn the box upside down and place it over the picture. Being a little larger than the picture each way the box will not touch it, but will rest with its edges on the table or floor. The fumes of the alcohol will dissolve the varnish, penetrate through the old coats of it, and clarify the whole. After a quarter of an hour it is well to raise the box a little, and make sure that the paper or cotton does not touch the picture, and that the spirit is not dripping or running down. The box is to be replaced and left for about an hour. When it is lifted off again, if the surface be as soft and even and the varnish as clear as if just applied, the operation is finished. If parts are still rough or clouded, the spirits should be renewed and the box put on again for half an hour or an hour more, and then the picture may be left to dry like any newly varnished one; and may be stood up while drying, as less likely to collect dust.

Thoughts about Paint.

A writer in the *Hub* arrives at the following conclusion: Wood is a porous substance, subject to change by atmospheric effects, such as dampness, heat, cold, etc. Paint is designed to protect the wood from these effects, and to improve the appearance of the article painted, by giving it both color and smoothness. To be durable, the first coat should unite with the wood, by grasping, as it were, the fibers, or penetrating into the pores, filling them, thereby sustaining itself and the subsequent coats applied over it, while at the same time it should be composed of materials to make it somewhat pliable, to follow any movement of the wood caused by shrinkage or by jarring or by any other slight disturbance—a quality which might be called elasticity.

The drying of paint is not caused, as many suppose, by the evaporation of its liquids; a portion only of these evaporate, while the oils oxidize—that is, the oils absorb oxygen from the atmosphere, and are converted into gums or resins, binding the particles of pigment together. This transformation of the oils into resins or gums may be hastened by the addition of siccatives or dryers, or by a partial oxidation of the oil by boiling; but just in proportion as this drying quality is given, will the elasticity or toughness of the paint be destroyed.

Boiling oil to partially oxidize it destroys one of its valuable qualities—namely, penetrativeness, and the paint mixed with it consequently has a tendency to dry on the surface of the wood, without entering the pores to secure a permanent foothold.

To Prevent Damp from North Walls.—North walls are frequently damp from the absence of the drying effect of the sun; this defect may however be remedied by allowing ivy to grow over them. It acts both by preventing the access of rain, and by the rootlets absorbing moisture from the wall. In very exposed situations the rain is frequently driven with such violence against the walls, as to penetrate through them, although the brick-work be of considerable thickness. This evil may be obviated by dissolving three-quarters of a pound of mottled soap in one gallon of boiling water, and spreading the hot solution steadily with a brush, over the outer surface of the brick-work, taking care that it does not lather. This is to be allowed to dry 24 hours, when a solution formed of a quarter of a pound of alum dissolved in two gallons of water, is to be applied in a similar manner over the coating of soap. The soap and alum mutually decompose each other, and form an insoluble varnish which the rain is unable to penetrate. The operation should be performed in dry, settled weather.

Salt Wood.—It is a curious fact that in the salt mines of Poland and Hungary the galleries are supported by wooden pillars, which are found to last unimpaired for ages, in consequence of being impregnated with the salt, while pillars of brick and stone, used for the same purpose, crumble away in a short time by the decay of their mortar. It is also found that wooden piles driven into the mud of salt flats and marshes last for an unlimited time, and are used for the foundation of brick and stone edifices; and the practice of docking timber by immersing it for some time in sea water after it has been seasoned, is generally admited to be promotive of its durability. There are some experiments which appear to show that, even after the dry rot has commenced, immersion in salt water effectually checks its progress and preserves the remainder of the timber.

Poisonous Red Carpets.—German industry has supplied commerce with carpets of a fiery red color, which owe their beautiful shades to a coloring matter which is known under the name of Vienna lake, rose lake, etc. These carpets are very poisonous, since chemical analysis has demonstrated the presence of arsenious acid; once in the proportion of 1 96 per cent., another time of 2.49 per cent.—*Il Medico di Casa.*

Factory Accidents.—In England, in the half-year ending the 30th of April, 1876, factory accidents caused the death of 128 persons, namely, 91 men and one woman, 27 young persons (all males except two), and eight male children and one female child. The accidents not fatal were serious enough to require amputation of a limb or part of a limb in 488 instances, but in 403 of these the loss was only of part of the hand; there were also 260 fractures of limbs or bones, 197 instances of injuries to head or face, and 2,193 other injuries sufficient to prevent a return to work within the next 48 hours. The total, including the 128 killed, is 3,266 persons injured—2,497 males and 769 females. Cleaning machinery in motion is described by a sub-inspector as "continuing to lead to very numerous and painful mutilations."

Hot Shot in Railway Cars.—A Chicago man has an idea which is startling, if not original. He says: "I have a plan to heat cars of all kinds that entirely does away with the chances of burning, in case of accident. I would use no stoves, hot water, or steam, but would use red-hot shot, that weigh 100 pounds each, placed in a box under the car, with registers in the floor of the car. Five balls would heat the car for four hours, the furnaces for heating to be placed along the stations, 100 miles apart. In case of accident there would be no stove in the car to burn the passengers, as in the recent case of the proprietor of the Sherman house, on the Harlem road. Mr. Holmes of the South Side horse railroad company, has given it a trial, and is pleased with its working."

Another Bridge Across the Mississippi.—At a meeting of Chicago and Clinton capitalists, at Clinton, Iowa, August 4th, a company was formed to construct a pontoon railway and wagon bridge across the Mississippi, under the act of Congress passed two years ago. The bridge is to be similar to the one at McGregor. There will be $100,000 stock; nearly that amount is already taken. Engineer J. E. Blunt, of Chicago, is engaged to make surveys at once and locate the bridge. It is expected to build it within the next few months. The bridge, besides affording wagon way across the river here, will give the Prophettown branch of the Burlington railway and the Western Union railway entrance to the city, previously denied by the Northwestern railway company, controlling the present bridge.

Hints for Steam Users.

The need of greater care in the employment of the steam engine in farm work has been noted in connection with the mention of the disasters which have visited our harvest fields. We find in the *Iron Age* some hints which all owners of engines and boilers should consider:

Among the recommendations of almost all the small engines in the market, we find the assertion that "it does not require a skilled man to run it." "Our machine can be run by a boy," etc. Now, good machinery needs good care, no matter how simple it is. There may be no danger of explosion, the machine may require little attention and almost "run itself," yet it should have good care. What constitutes good care we shall endeavor to explain briefly.

Oiling.

Abundant lubrication with good oil is a prime requisite. We place this first, because the mistaken idea only too generally prevails that any kind of oil will answer, provided enough is used to keep the bearing surfaces from "squeaking." The steam user who follows this policy will do so to his cost. The oil used should be the best.

Most engines of the present day, no matter how small, are fitted with oil cups, and many engineers take it for granted that if the cups are filled once in so often it is all right. It may be all wrong. What a bearing needs is a proper quantity of oil constantly supplied to it, and not to be flooded one day and dry the next. It may happen that the cups do not work as they should. The bearing may not get enough, and the oil in the cup last too long, or the cup may deluge the bearing at first and then let it go dry. We have seen a cup intended to run a certain bearing for a month and supply it with plenty of oil, which invariably emptied itself in a week, while other cups beside it would work as they were intended to. The result was that a green hand, trusting the cup to do its work like the others, ruined the bearing entirely.

Cleaning.

An engine or machine should never be allowed to become dirty. Thorough cleaning requires very little labor, and only a little attention now and then. An engine or machine which has always been kept clean, protected from rust, and not abused in any way, is worth, when second-hand, very much more than another which has had little attention, been allowed to rust and to take care of itself generally.

Boilers.

The boiler is at once more expensive and more easily destroyed than the engine itself. Very often it receives the least attention, and would have even less were it not for the fact that utterly neglected boilers do at times explode with inconvenient effect. Most of the small engines in the market are provided with safety boilers, so that the danger from explosion is very small. A boiler should not be blown off and filled with cold water while hot. Blowing out under pressure does not seem to be a desirable practice. The heating surfaces of the boiler should be kept as clean as possible. A very thin deposit of soot makes a great difference in the amount of heat transmitted. In getting up steam when the boiler is cold, it is well to avoid too much haste. One part may be over-heated while another part is cold, resulting in strains. The valve should be closely looked after.

Firing.

Firing is an art to be acquired by all steam users. It was once thought that anybody could fire, and he was supposed to be a good fireman who could keep steam constantly blowing off from the savety valve. It is now understood that he is the best man, other things being equal, who can get the most work with the least coal. Boilers of small engines vary so much in construction and requirements that particular directions in regard to them would be useless. To keep an even pressure of steam, and have but a small body of coal on the grate when it is time to draw the fire, are points that should receive attention.

Care.

A leak should never be tolerated for a moment. The matter may in itself be trifling, but the results may be the destruction of the boilers. The drip from a valve, or steam pipe, or joint, should never be allowed to fall upon the boiler, because of the rapid corrosion which a drip of any kind causes. A very slight leak is often sufficient to cause a severe grooving of the plates, necessitating costly and troublesome repairs. We may be expected to say something about low water, but upon this subject we think there is very little to be said, save that in some boilers a very slight fall of the water level is sufficient to expose the crown sheet, and, with a sharp fire, to ruin the boiler in a short time. The steam user should study his engine, and acquaint himself with all its peculiarities, and if he exercises an intelligent observation he will soon learn what attention it needs, and how such attention should be given. —*Iron Age.*

Important Improvement in Boiler Construction.—In some of the leading boiler works in Manchester, England, the longitudinal riveted seams have been abolished, as causing a weakness exactly in that direction where the greatest strain causes an especial danger. The plates are united by soldering, with the help of a gas furnace and special machinery, so as to make their length equal to the circumferences of the boiler.

D. M. Osborne & Co.'s Machines.

A fine exhibit was made at the late fair of the Mechanics' Institute of the mowing and reaping machines of D. M. Osborne & Co., of Auburn, N. Y. These are the machines that carried off the first premiums as combined machines and reapers at the California State fair, held at Sacramento, September, 1875, after a rigid examination by the committee with the machines in full operation by team. The team used was owned and driven by Mr. McCall, of San Jose. The State diplomas then obtained were displayed in connection with the machines at the Pavilion, together with similar ones from the Oregon State fair and others. This house has an experience of more than *twenty years*. It is a consolidation of several well known companies at Auburn, N. Y., and is now one of the largest companies in the Union. They now control very many of the best patents known in the mower and reaper interest. They build the celebrated Wheeler, Kirby and Burdick machines with very valuable improvements over old styles. They have front and rear cut two-wheel mowers, front and rear cut and single reapers, and combined machines, as well as a most perfect self-binder. They have opened a permanent Pacific coast branch house of their own in San Francisco, with their Mr. M. Ayers (an old veteran in the business, who has followed the fortunes of these machines for many years,) in charge as general manager of the Pacific coast agencies, covering Wyoming, Utah, Nevada, California and Oregon. From this branch the above-named country will be supplied with machines and extras for any machines ever made by them, and the trade is direct with the local country dealers, and there is no San Francisco commissions paid to any one. The following circular, issued last February, explains itself, and upon it many machines have been sold all over the State and in Oregon :

"Take Notice—D. M. Osborne & Co., of Auburn, N. Y., manufacturers of various styles and sizes of mowers and reapers, are now establishing direct trade with the local dealers of California. This house has over 20 years' experience, and has two of the largest factories in the United States. Agents are wanted in all parts of California. Large invoices of machines and extra parts are now in transit. Agents securing territory this season and introducing the machines will always hereafter have the preference. We have no 'sole agents.' Parties wanting agencies will, until further notice, address, M. Ayers, P. O. box 1818, San Francisco, February 15, 1876."

Mr. Ayers now piles up on our desk a bundle of testimonials from all parts of the State, especially for flax cutting, where the improved movable lower double section or ledger plate in the guard comes in for its share of the honor. The machine on exhibition at the Pavilion has been running by steam with one of M. C. Hawley & Co.'s one horse power engines, and not over one-fourth of its power being used, in full operation, cutting apparatus and all, constantly all through the fair since August 8th, and yet no sound or rattle and pound can be heard at the Pitman connection, as with many other machines, and there is no perceptible wear. The perfection of the machinery is shown by the stillness with which the machines run.

The agents for this house are more than doubling their orders nearly all over the State. The concern is a fixed institution here, and gives the farmer in this instance as near direct trade with the Eastern manufacturer as business necessities will admit. As promised in the February circular, all 1876 agents are being retained for 1877, and the terms and conditions are very liberal to agent and farmer. The *Osborne Monthly*, a live newspaper published at Auburn, N. Y., by this company, sent gratis, post paid, to any farmer and country dealer whose name can be obtained, and it is well worth reading. All communications should be addressed to D. M Osborne & Co., Box 1,818, San Francisco, Cal.

Foreign Tribute to American Skill.

A marked tribute to the skill of our American mechanics has been accidentally uncovered in an order from France for duplicate parts of some rubber machinery. About 20 years ago an American mechanic, Alexander Hutchinson, left Trenton, N. J., with a set of rubber machinery to introduce that industry into France. From time to time sundry duplicate parts have been sent thither, while parts of new machines have been got out in that country. The factory being now the largest one in France and national pride instigating a desire that nothing further should be imported, they have been able to secure all the parts but the calender rolls; but as these are cast in an iron mold, the molten iron running against cold iron to make a hard surface, French mechanics have given over this job as impossible, and the order is now placed in the United States by Mr. Hutchinson himself. The casting in these molds is a high order of the mechanic arts, as the work is liable to crackle in the turn-out, while the tools to dress it off must be of the very hardest steel, and all set in the most powerful lathes, running so slowly as to be hardly perceptible. There is one foundry in Trenton, N. J., one in Pittsburgh, Pa., and one in Boston, Mass., which have successfully done this work.—*Boston Commercial Bulletin.*

The Wonders of Wire.

It is hardly hyperbolical to affirm that the simple metallic thread or filament familiarly known to us as wire, epitomizes the entire culture and progress of the age, and that there is no other single form of the useful metals so intimately inwrought with civilized man's needs.

Nay, if we were required to indicate some particular article of man's handiwork which should, above all others, in itself represent the material and moral power of our present civilization, we should at once name that little piece of pointed perforated wire—the sewing needle.

And hardly inferior to this in the category of most important trifles made of wire, which are quite indispensable to mankind—or, shall we say, womankind—may be classed the hairpin. If, as is indisputably and poetically affirmed, "Beanty draws us with a single hair," what engineer so reckless as to estimate the power of the hairpin?

A keen appreciation of the magnitude of little things would doubtless dawn upon us if we could only foresee what family perturbations, what personal discomfort, what a taxing of man's ingenuity for a substitute, what an overturning of present fashions, peradventure, —what dire possibilities of change even in our whole social structure might the sudden deprivation of that nbiqnitous piece of bent wire entail!

If we seem to exaggerate the importance of wire in the world's economy, let us ask in what department of the mechanic arts, of scientific and industrial progress, wire, in some form, is *not* a valuable adjunct or an indispensable requisite?

The uses and importance of wire are, however, made obvious in the greater achievements of man.

The intelligence flashed from continent to continent the wide world around, must have the wire track to follow; if we span the Niagaran chasm, the wire cable is the potential means; or, if science, intent on hydrographic research, desires to investigate the physical conditions of ocean's profoundest depths, the wire line alone insures the return of the evidence-bearing instrument from those realms of eternal silence and night.

All-important, too, is wire to the miner in his explorations of the earth's crust for mineral wealth. The inestimable treasures of coal and the useful metals, and our monthly millions of gold and silver are drawn from the deepest rocky crypts by the strong, tenacious sinews of wire—which have now fairly supplanted the hempen strands of old.

Wire also ministers in no small degree to our physical comfort and enjoyment of life, as witness the wire broiler, whereon our steaks and chops are made delicious and digestible, and the fabrics and devices of wire to exclude or entrap the pests of the household.

We may not even debar from the catalogue of human inventions and discoveries indebted to wire those two greatest agencies of modern material progress—the railway and steamship—for, without much stretch of fancy, may we not consider the iron rail, the axle and the ponderous steamship shaft merely Brobdignagian wires wrought to special and convenient size and shape?

To the credit of the Pacific coast and the enterprising proprietor, it may be stated that all of the elegant workmanship in wire at the late Mechanics' fair was exclusively of *home manufacture*, made at the California wire works, of which Mr. A. S. Hallidie is proprietor, and successor to J. M. Eckfeldt & Co.; office and salesrooms, 412 Clay street.

CHLORIDE OF LEAD AS A DEODORIZER.—Dr. Goolden, in the London *Lancet*, directs attention to the great value of chloride of lead as a deodorizer. He prepares it by dissolving half a drachm of nitrate of lead in a pint or more of boiling water, and pouring the solution into a bucketful of water in which two drachms of chloride of sodium have been dissolved. When the sediment has subsided, the clear supernatant fluid is a saturated solution of chloride of lead. Dr. Goolden says that a cloth dipped in this solution, and hung up in a room, will instantly sweeten a fetid atmosphere; or, if the solution be thrown down a sink, water closet, or drain, or over a heap of dung or refuse, a like result will ensue. In this way he disinfected a house in which a drain had burst, some stables, and also a large ship. In the last case the bilge water was exceedingly offensive. He merely dissolved half an ounce of nitrate of lead in a bucket of boiling fresh water and had it thrown down the bilge when the ship was rolling slightly. The effect was the instantaneous disappearance of all smell.

COLORED GLASS FOR ENTOMOLOGICAL CASES.—At a meeting of the Entomological society of Belgium, some time ago, M. Capronnier was charged to make experiments as to the influence of different colors of glass on insect collections; the object being to preserve collections from the decoloration which green and carmine parts especially undergo in daylight. He operated with four tints of glass—yellow, violet, green and blue—also with uncolored glass. It was found that yellow is the best preservative; after 90 days it was the only color which left carmine nearly quite intact. It is not an absolute preservative, for at the end of this time the tint was slightly altered. It seems that the only way known at present of keeping collections absolutely intact is to keep them in darkness.

WATERING PLANTS IN SUNSHINE.—Liebig was the first to discover and prove the presence of nitric acid and of ammonia in the air and the water. From the fact that the contact of atmospheric air, hydrogen and the electric spark produces nitric acid, he inferred that the same process repeated on a large scale by the effect of lightning upon the wet atmosphere—*i. e.*, by every thunder storm—must produce the same result; and the analysis of rain water showed that it really contained a certain amount of nitric acid. The quantity of nitric acid was found to be greater when the experiment was made in the day-time than when made in the night, and a particularly large percentage of the acid was obtained from water which had dripped in full sunshine from the green leaves of a tree. As we all know, a rainfall happening during strong sunshine is considered to be injurious to vegetation, and especially to the development of the green leaves, which often have a stained and seemingly burned appearance afterward. We also know that experienced gardeners, although they can give no theoretical reason for it, discourage the watering of flower-beds during the sunshine. It must be inferred from these facts that the falling rain drops, when shone upon directly by the rays of the sun, exercise a pernicious influence upon vegetation; and we may suppose, although there is as yet no positive proof of it, that the cause of this is the formation of nitric acid in the water. It would be interesting to see in this case, as in many others, a mere empirical observation confirmed by the development of scientific knowledge.

MIXING DIFFERENT COLORS.—The following recipes will enable the amateur painter to mix many shades or tints that he may require: Cream color—This is a mixture of chrome yellow, the best Venetian red and white lead. Pearl gray—White lead, with equal portions of Prussian blue and lampblack. The blue must be used very cautiously, as it is a powerful color. Fawn color—Burnt sienna, ground very fine, mixed with white lead. Buff—This is a mixture of pale chrome yellow and white lead, tinged with a little Venetian red. Straw—A mixture of pale chrome yellow and white lead. Drab—Raw or burnt umber and white lead, with a little Venetian red.

THE NEW WILLCOX & GIBBS Automatic Tension Silent Sewing Machine is the latest and most marvellous invention in sewing mechanism. It is the only sewing machine that can be used successfully without instruction or experience, and invariably does perfect and durable work. First premium at American and Franklin Institute Fairs, November, 1875. Send for circulars and price-list to Willcox & Gibbs Sewing Machine Co., E. B. Cutler, Gen. Agent, 111 Post street, S. F.

HARD ON THE PUBLISHERS.—Some of our subscribers when called upon by our agents insist that they have sent us notices through (perhaps) a neighbor, the postmaster, or a letter, and we have taken no notice of their orders, for which they feel hard towards us. Now, we never received such notices without responding to them. *It would be suicidal to our interest to ignore them.* The fact is that it too frequently happens that people misdirect their letters; too frequently forget to put the right (or any other) kind of stamps on their letters; they too often send a copy of the paper back, which may never reach our business office, or if it does reach us, may lack the name of the town and county in which the subscriber lives, in which case we cannot (if we have his name) tell what part of our list to find it, to cross it off or change it, without looking over some 10,000 names. Postmasters and their clerks make omissions and mistakes as well. ☞ When you have business with this office remember postal cards and letter stamps are cheap, and ask no one to do that which you can well do yourself. tf

AMERICAN MANURES, OR FARMERS' AND PLANTERS' GUIDE.—Comprises a description of the elements and composition of plants and soils; the theory and practice of composting; the value of stable manure and waste products, etc. Also, a chemical analysis of the principal manufactured fertilizers—their assumed and real value—and a full expose of the frauds practised upon purchasers. By Wm. H. Bruckner, Ph. D., Phila. Sold at this office. Price, $1.75; post paid.

THE THRESHERS' GUIDE, by D. W. Hollihan, a practical operator with threshing machinery in California and other States. A book of useful and friendly hints to the grain growers, machine owners and threshing superintendents and workmen. Published at the RURAL PRESS office, in 1872. Price, $1; in limp cloth binding, 75 cents; postage paid.

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

GOOD PRINTING INK.—We prefer Chas. Eneu Johnson's printing inks, having used them on this paper for the past four years. H. S. Crocker & Co., printers, stationers, blank book and paper dealers, are Johnson's S. F. agents.—DEWEY & Co., Publishers.

THOUGHTLESSNESS.—Persons sometimes return their paper, marked "stop this paper." Their name being pasted on the sheet they think that is all we need to be able to cross their names off. Now that is thoughtlessness. Your P. O. address is needed as much as your name. We have thousands of names arranged only according to locality. Our mailing clerk does not know where everybody lives.

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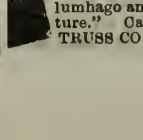
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FOR SALE—My POULTRY BUSINESS, with my Farm of 115 acres; 22 acres of Vineyard and Orchard; House of 10 rooms; Barns; Granaries; 30 Chicken houses.
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M. EYRE, Napa, Cal.
In view of above I offer a few fine Fowls, Bronze Turkeys, etc. (not included in breeding pens and stock sold with farm), at reduced prices.

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"Metal Trusses being rigid and unyielding, are often displaced from their position by the motions of the body, in consequence of which they ENLARGE rupture instead of healing it. Their pressure is often wrought upon parts of the body which are healthy, thereby causing lumbago and other diseases of a dangerous nature." Call on the MAGNETIC ELASTIC TRUSS CO., 609 Sacramento Street, S. F.

To Encourage the Growth of Timber.

EDITORS PRESS:—Will you publish the act referred to in your article "Important to Settlers" in the RURAL PRESS of July 29th? We are all on Government land, and if the act will help us, although not on the prairies, we would like to avail ourselves of it.—R. W. WATERMAN, San Bernardino, Cal.

The following is the act referred to as published in Dewey & Co.'s pamphlet on the "Public Lands of California and the United States Land Laws." The following, taken in connection with the amendment to which our correspondent refers, comprises the law as it now stands for the encouragement of timber growing:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the act entitled "An Act to encourage the growth of timber on Western prairies," approved March 3d, 1873, be, and the same is hereby, amended so as to read as follows: That any person who is the head of a family or who has arrived at the age of 21 years, and is a citizen of the United States, or who shall have filed his declaration of intention to become such, as required by the naturalization laws of the United States, who shall plant, protect and keep in a healthy growing condition for eight years, 40 acres of timber, the trees thereon not being more than 12 feet apart each way, on any quarter section of any of the public lands of the United States, or 20 acres on any legal subdivision of 80 acres, or 10 acres on any legal subdivision of 40 acres, or one fourth part of any fractional subdivision of land less than 40 acres, shall be entitled to a patent for the whole of said quarter section, or of such legal subdivision of 80 or 40 acres, or fractional subdivision of less than 40 acres, as the case may be, at the expiration of said 8 years, on making proof of such fact by not less than two credible witnesses: *Provided*, That not more than one-quarter of any section shall be thus granted, and that no person shall make more than one entry under the provisions of this act, unless fractional subdivisions of less than 40 acres are entered, which, in the aggregate, shall not exceed one quarter section.

SEC. 2. That the person applying for the benefit of this act shall, upon application to the register of the land district in which he or she is about to make such entry, make affidavit before the register, or the receiver, or some officer authorized to administer oaths in the district where the land is situated, who is required by law to use an official seal, that said entry is made for the cultivation of timber, and upon filing said affidavit with said register and said receiver, and on payment of $10, he or she shall thereupon be permitted to enter the quantity of land specified; and the party making an entry of a quarter section under the provisions of this act shall be required to break 10 acres of the land covered thereby the first year, 10 acres the second year, and 20 acres the third year after the date of entry, and to plant 10 acres of timber the second year, 10 acres the third year, and 20 acres the fourth year after date of entry. A party making an entry of 80 acres shall break and plant, at the times hereinbefore prescribed, one-half of the quantity required of a party who enters a quarter section; and a party entering 40 acres shall break and plant, at the times hereinbefore prescribed, one quarter of the quantity required of a party who enters a quarter section, or a proportionate quantity for any smaller fractional subdivision: *Provided, however*, That no final certificate shall be given or patent issued for the land so entered until the expiration of eight years from the date of such entry; and if at the expiration of such time, or at any time within five years thereafter, the person making such entry, or, if he or she be dead, his or her heirs, or legal representatives, shall prove, by two credible witnesses, that he or she or they have planted, and, for not less than eight years, have cultivated and protected such quantity and character of timber as aforesaid, they shall receive a patent for such quarter section or legal subdivision of 80 or 40 acres of land, or for any fractional quantity of less than 40 acres, as herein provided. And in case of the death of a person who has complied with the provisions of this act for the period of three years, his heirs or legal representatives shall have the option to comply with the provisions of this act, and receive, at the expiration of eight years, a patent for 160 acres, or receive without delay a patent for 40 acres, relinquishing all claim to the remainder.

SEC. 3. That if at any time after the filing of said affidavit, and prior to the issuing of the patent for said land, the claimant shall abandon the land, or fail to do the breaking and planting required by this act, or any part thereof, or shall fail to cultivate, protect and keep in good condition such timber, then, and in that event, such land shall be subject to entry under the homestead laws, or by some other person under the provisions of this act: *Provided*, That the party making claim to said land, either as a homestead settler or under this act, shall give, at the time of filing his application, such notice to the original claimant as shall be prescribed by the rules established by the Commissioner of the General Land Office, and the rights of the parties shall be determined as in other contested cases.

SEC. 4. That each and every person who, under the provisions of the act entitled "An Act to secure homesteads to actual settlers on the public domain," approved May 20th, 1862, or any amendment thereto, having a homestead on said public domain, who, at any time after the end of the third year of his or her residence thereon, shall, in addition to the settlement and improvements now required by law, have had under cultivation, for two years, one acre of timber, the trees thereon not being more than 12 feet apart each way, and in a good thrifty condition, for each and every 16 acres of said homestead, shall, upon due proof of such fact by two credible witnesses, receive his or her patent for said homestead.

SEC. 5. That no land acquired under the provisions of this act shall in any event become liable to the satisfaction of any debt or debts contracted prior to the issuing of certificate therefor.

SEC. 6. That the Commissioner of the General Land Office is hereby required to prepare and issue such rules and regulations, consistent with this act, as shall be necessary and proper to carry its provisions into effect; and that the registers and the receivers of the several land offices shall each be entitled to receive two dollars at the time of entry, and the same sum when the claim is finally established and the final certificate issued.

SEC. 7. That the fifth section of the act entitled "An act in addition to an act to punish crimes against the United States, and for other purposes," approved March 3d, 1857, shall extend to all oaths, affirmations and affidavits required or authorized by this act.

SEC. 8. That parties who have already made entries under the act approved March 3d, 1873, of which this is amendatory, shall be permitted to complete the same upon full compliance with the provisions of this act.

Approved March 13th, 1874.

Iron and Wire Works and Ornamentations.

Of late years, and remarkably so in our young city, San Francisco, useful, graceful and beautiful articles manufactured in wire have become quite prevalent, and been much adopted in our houses and gardens. The display of wire work in the late Mechanics' fair fully proves and illustrates these remarks. The exhibit at the entrance of the Pavilion garden, by Howard & Morse, of fancy iron wire fencing, summer houses, bird cages, etc., either galvanized or painted, and also the summer house in the center of the garden, made a very attractive and effective display. The fancy iron wire fencing is being much adopted in wealthy peoples' grounds in the East, and large orders have been sent to this firm from there, and it is fully expected that our well-to-do men and millionaires here will extensively patronize it round their squares in the city and their villas in the country. For garden seats and arbors where rustic wood work would be inappropriate, those of metal work will be found of the greatest value. The above firm produce, as their exhibit shows, fine examples of artistic iron and wire work, chairs in Gothic, vine-leaf and oak and other patterns, at moderate prices and of incomparable beauty. The obdurate nature of the several metals used is entirely overcome in the elegant tracery, waving lines and light flowing scrolls which adorn these admirable pieces of furniture.

Perhaps the most useful of all their metal adornments for gardens are the arches and canopies of wire work for spanning paths, or as affording proper supports for the growth of elegant climbers. There can be nothing cheaper or more durable, while the elegance of these ornaments, when covered with fine climbing masses (such as our California climate can produce) of *Stauntonia*, or the verdurous tendrils of *Astrolobium nithon*, or even common ivy, with many other like things, is unmatched. The canopies are suitable for plants of less rapid growth, and are in themselves elegant structures, though of course still more so when skilfully covered with the tendrils and blossoms of suitable plants. We strongly commend these structures to all lovers of the useful and graceful in gardening. Trellises fitted to pots and covered with climbers make noble window and terrace ornaments. The choice kinds of *Tropaeolum* or nasturtium are among some of the best plants for the purpose. To carry them over the entire surface it is necessary to watch the young shoots as they make progress, and lead them regularly. Fine lead wire will be found useful in all cases where creepers have to be led over trellises. The thread-like fingers of the *Tropaeolum* make the best effect if trained over the interior of a sphere; but for plants of stouter growth, such as the pyramidal bell-flower, a flat and somewhat fan shaped design will be most suitable. Trellises and wire-work designs of light character suit for such climbers as *Passiflora rhodochiton, Cobea scandens, Maurandyas* and fuchsias of pendant habit.

Where it is possible to make an ornament useful, or at least to appear useful, it is always much more appropriate. Thus the summer house, or arbor, offers shade and a place of rest, and hence should be placed in a spot where rest will be most agreeable; where there is a good view is often appropriately chosen as the site for an invitation to halt and rest. Rustic arbors may be shaded with fruit trees, vines, currant, cherry, and any other bowery fruit trees and shrubs. Ivy, clematis, everlasting pea, yellow and white jasmine, stauntonia, Virginian creeper, etc., are also useful and make elegant screens.

Folding chairs are sometimes made for gardens, so arranged that the back folds down on the seat and keeps it always dry; the visitor has to throw up the back, when the seat is found dry and well protected from the effects of the sun. This may be a hint for manufacturers. We hope to see these wire and iron works, so promotive of refined taste in the public mind, well patronized and adopted generally. Mr. J. P. Bering, of 420 Sansome street, is agent for Messrs. Howard & Morse.

San Francisco and Pacific Glass Works.

The exhibit of home-manufactured glass ware made by this company in the late fair was particularly fine, instructive and practical. Every visitor observed it on first entering the Pavilion, and could at once assign each article to its particular place in its commercial or household relations, and consequently the display became the more interesting as we examined it and appreciated how intimately it was connected with our daily life. Here we found the jar that is to hold our preserves, and the bottle that is to contain our ipecacuanhs; the convenient jars that are to enclose our winter sweetmeats, stood side by side with cider and vinegar demijohns; the patent tule-enclosed, big-bellied receptacles of brandy and whisky whose contents may kick up an Irish shillelaigh fair, hob-nobbed with the demure diminutive vials that may surround our Chickadee's dose of soothing syrup, that lulls the belly-ache into forgetfulness. Of all sizes and shapes of green and black ware are these brittle specimens of man's ingenuity, and a showy pyramid they made.

The works of this company are situated on King street, foot of Fourth, and are run under the immediate supervision of Carlton Newman and James Davis, the latter once the foreman of our printing office. The Pacific glass works and the San Francisco glass works, formerly two rival establishments, consolidated to form the present company, and under one management and incorporated, the business has become very successful and lucrative, and at the same time the means of supplying the Pacific slope with cheaper and better goods than than can be obtained from the East.

Glass being made of sand and soda is a heavy article, as well as a difficult one for transportation on account of the immense amount of waste material necessary for its safe transportation. Shipped here from the East, the freight becomes the principal item in its cost, consequently a factory here can compete with Eastern prices and still have a fair margin left for profit.

In the line of jars for fresh fruit this establishment has been of great value to the people of this coast, reducing their cost to the consumer nearly 30 per cent. Of these they manufacture the "Gem," the "Groove Ring" and Mason's porcelain-lined jars. The former is the favorite, and is an excellent jar for practical purposes. The Groove Ring is a much cheaper jar, having a tin lid which is secured and made tight by the use of sealing wax, and is said to effectually preserve its contents. The Mason is a porcelain-lined jar of great value and strength, and a favorite with some for particular uses. All are good, and furnished to wholesale dealers on exceedingly low terms.

The capacity of the works on King street is equal to the demands of the whole Pacific slope, amounting to upwards of $120,000 per annum. They run eight large pots when working full-handed, and turn out a very superior article of ware.

General News Items.

THE storm in the Eastern States last Monday did great damage.

DIPHTHERIA is prevalent in San Francisco. There were 170 deaths from it last month.

THE troops have had a brush with the Sioux, surprised 40 lodges and scattered the Indians.

PRINCE MILAN has been proclaimed King of Servia.

THE yellow fever does not seem to be decreasing in Savannah.

THE Jewish New Year was celebrated on Tuesday last.

THE State Educational Convention met in San Francisco this week.

MR. CAMERON, Secretary of War, and General Sherman have arrived in San Francisco on a visit.

THE Congressional Commissioners on the silver question met in New York on Monday. They selected three experts to aid them in their investigation.

NAVAL officers affected by the recent order of Secretary Robeson, reducing the pay of officers awaiting orders on half pay, will contest the matter in the courts.

THE San Francisco Water Commissioners are now inspecting the property of the South Yuba canal company in Nevada and Placer counties.

A DESTRUCTIVE storm at Philadelphia on the 17th inst. blew away portions of the roofs of the main exhibition building and machinery hall, damaging the American and English exhibits considerably.

THE *Hassler*, which got away from the navy yard on Thursday, will resume the survey of Santa Monica bay; afterward the surveys of Santa Rosa and San Miguel Islands will be undertaken.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

FOR WEEK ENDING SEPTEMBER 12TH, 1876.

AMALGAMATORS.—Wm. McCourt, Virginia City, Nev.
MACHINES FOR SAWING STAVES.—Benjamin H. Catching, Forest Grove, Ogn.
ANVILS.—James Jenkins, Cortez, Nev.
APPLE CORERS.—Isaac Rodgers, Sheridan, Ogn.
BOOK SHELVES.—John L. Boone, S. F.
CARRIER ATTACHMENT FOR SEWING MACHINES.—John L. Boone, S. F.
COFFINS.—Samuel Rodgers, Los Angeles, Cal.
STENCH TRAPS.—John Peter Schmitz, S. F.
BAG SEWING MACHINES.—William Webster, S. F.

Notices of Recent Patents.

Among the patents recently obtained through Dewey & Co.'s SCIENTIFIC PRESS American and Foreign Patent Agency, the following are worthy of mention:

SUGAR COMPACTING MACHINE.—W. Wadsworth (deceased), by T. L. Wadsworth, administrator, Sacramento. The invention of said W. Wadsworth (deceased), combines certain improvements in machines for converting loose granular sugar into blocks or cubes or other solid form. It consists in the employment of a rotating drum or cylinder, the face or rim of which is provided with cavities or cells which form molds, in and upon which the granular sugar is deposited from a hopper which is mounted above the drum and into which the sugar is compacted or condensed by pressure rollers, which are so arranged as to press upon the rim or face of the wheel as it rotates. The invention also includes a system of pistons which are automatically operated so as to force the condensed blocks or cubes out of the molds and deposit them upon an endless belt. The operation is continuous. The wheel deposits the sugar in the trays on the endless belt while the belt moves continually and carries the trays to a point where they can be removed by the workmen.

DEVICE FOR TRANSPLANTING TREES.—Timothy Carroll, Anaheim. This invention relates to a novel device for transplanting fruit trees, and consists in connecting a vertically moving tube and guide rod or rods with a frame, whereby said tube may be operated for the purpose of taking up the tree; also in a lever pivoted to the frame and a loose ring arranged within the tube whereby the ball of earth around the roots of a tree may be forced out into the hole prepared for its final reception. A hinged piece is at the lower end of the frame, which during the operation of taking up the tree is bolted in line therewith, but which after the tube and tree have been re-set, may be unbolted and swung out of the way in order that the frame may be lowered and the lever brought down to act on the rods of the tube so as to raise the same.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

E. N FRESHMAN & BROS., advertising agents, 186 W. Fourth St., Cincinnati, O., are authorized to contract for advertising in this paper. Estimates furnished free. Send for a circular.

The Immigrant Bureau Re-Organized.

A Free Employment and General Information Office.

The Peoples' and Grangers' Immigrant Bureau, which accomplished so much good last year, has been re-organized under a new Board of Directors, and will continue its good work of attracting immigration and providing for the necessities of the new comers FREE OF CHARGE. Four thousand and eighty-two situations have been found for applicants since May, 1875. The Bureau expects to receive orders for all the help that may be required in the country the present season. Four hundred persons visit the office daily. Descriptions of land, maps, pamphlets, circulars, and local newspapers, should be sent to the Bureau. They will be freely distributed among inquirers. The Bureau was established by the State Grange, and being supported *entirely* by subscription NO CHARGE is made for any business transacted. The following gentlemen are on the Board of Directors for the ensuing year: Mayor A. J Bryant, Chairman; I Friedlander, C. Adolphe Low, Mark L. McDonald, Amos Adams, J. Regensburger, C. D. Sullivan, Charles Lux, George H. Eggers, J. C. Wilmerding, C. J. Cressy, John Morton, Col. A. Wason, Hon. F. A. Gibbs, F. B. Taylor, C. H. Dennison, Claus Speckles, Charles Kohler, A. W. Thompson, All communications should be addressed, J. EARL, MANAGER, IMMIGRANT BUREAU, Grangers' Building, 40 California street, San Francisco.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Wednesday, Sept. 20th, 1876.

The course of trade has progressed evenly during the week. Transactions in Grain and other Produce are of considerable amount. The clearance of Wheat ships has proceeded rapidly.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	Cal. Average.	Club.
Thursday	9s 6d@ 9s 9d	9s 9d@10s 1d
Friday	9s 6d@ 9s 9d	9s 9d@10s 1d
Saturday	9s 7d@ 9s 10d	9s 10d@10s 1d
Monday	9s 7d@ 9s 10d	9s 10d@10s 1d
Tuesday	9s 8d@ 9s 11d	9s 11d@10s 1d
Wednesday	9s 8d@ 9s 11d	9s 11d@10s 1d

To-day's cable quotations to the Produce Exchange compare with the same date in former years as follows:

	Average.	Club.
1874	10s 4d@10s 8d	10s 8d@11s 3d
1875	10s 7d@11s —	11s 1d@11s 6d
1876	9s 8d@ 9s 11d	9s 11d@10s 1d

From the above it will be noticed that the cable price continues its disposition to advance. Although this gives a firmer tone to the local market, there is, as yet, no change in prices.

The Foreign Review.

The advance in England is further described in the following telegraphed review from the *Mark Lane Express* of September 18th: The weather throughout the week has been dull and autumnal. In the north a large portion of the Cereal crop remains unsecured; sprouted grain and a deteriorated condition have therefore characterized the supplies at many of the northern country markets, and threshing has been in a great measure stopped by frequent rains. The seed crops have also sustained injury from the same cause. Mustard and Rape seed especially have appeared in considerably less quantities than is usual at this time of year, the condition of both having much deteriorated. It is estimated that in Scotland barely half of the Cereal crops is cut, and more than a quarter is stacked. The same delay prevails in Ireland, and outstanding grain is suffering in color, and sprouting. Farmers who were fortunate enough to secure their Wheat in good order are in no hurry to sell now. There appears to be a probability of better prices, and the bulk of the supply is more or less affected by the damp. Imports of Wheat are still fair, but show a slight decrease, while exports have somewhat increased. The imports of the last month were little more than half those of the corresponding period last year, when the rapid advance in values caused such a stream of supplies. India still contributes largely to our foreign supply; shipments from that quarter are regarded with undiminished interest, as exercising considerable influence on the course of prices. The continued steadiness of the local trade seems to have strengthened the opinion that prices have touched their lowest point. If foreign supplies do not increase, there is no reason why prices should not improve two or three shillings per quarter. Maize has advanced despite the heavy supplies, the enormous consumption keeping prices steady; besides, the approach of Winter seems to give a hardening tendency. Oats and Beans sold freely during the week; the former, notwithstanding heavy arrivals, advanced sixpence to a shilling per quarter. Flour has been steady at the extreme prices of the preceding week. There has been a very steady demand for floating cargoes, and prices have improved fully a shilling per quarter for both Wheat and Maize.

The European Crops.

The cable brings also the following concerning the European grain crops:

LONDON, September 19th.—James Caird, the well known practical agriculturist, author and statistician, writes to the *Times* in regard to the Wheat crop as follows: "The condition and quality is all that could be desired, but as threshing proceeds the yield continues more disappointing. The land under Wheat in the United Kingdom this year is 3,000,139 acres, which is 678,000 below the average of 1874 and the seven preceding years—a decline of over 20 per cent. on the average growth. The decline from last year is 378,000, but that will be more than compensated by the increased yield per acre and the higher quality. I put the gross product of our present crop at 10,600,000 quarters. Deducting 800,000 quarters for seed, it will leave 9,800,000 for consumption. At the present rate of consumption with us we require for the coming year about 13,000,000 quarters from stocks on hand and foreign importation. This is the fourth year in succession in which America has been our main dependence. If that should fail in any material degree it will be impossible to fill the gap elsewhere. British India has largely increased her export, which in the last eight months reached nearly five per cent. of our whole foreign supply. With no quarter from which we can expect increased supply, and with some prospect of a diminution of the American supply, it is satisfactory to know that we begin with a large stock from the surplus of last year's import. The very fine quality of the Wheat of all countries warrants an increase of price in consequence of the decreased area under cultivation. We may, before long, expect such a moderate increase on the low price of the last two years as to leave some profit to both home and foreign growers."

From statistics submitted to the Grain Fair lately held at Vienna, it appears that Austro-Hungary will this year be able to export: Wheat, 1,372,000 quarters; Barley, 1,715,000 quarters; Rye, very little for export. The quality of Wheat and Barley varies much. It is also added that England and France, Germany (Bavaria and Saxony excepted), Switzerland, Sweden, Norway and Denmark, north of Italy and Roumania remain this year with harvests of Wheat somewhat behind the usual average, while Bavaria, Saxony, Austria and Russia have the full average crop or above. Of Rye, only Russia and France show a full average, while the other countries have a deficiency, more or less. Of Barley, Prussia, the south of Bavaria, England and Sweden are not up to the usual average; all other countries have a middling or good result.

Freights and Charters.

Wheat charters to the United Kingdom, says the *Post*, have been active during the week and rates have slightly advanced. The list of vessels on the berth and engaged to load has greatly increased, while the disengaged vessels are now fewer in number. The closing quotations for first-class vessels to a direct port are £3, while to Cork for orders we quote £3 5s. The engagements in tonnage in port now aggregates 85,585 tons for Wheat and 6,199 tons for miscellaneous uses. The disengaged tonnage foots up 22 vessels of 27,569 tons. The engagements of the week have been as follows: Ship Ellen Munroe, 1,383 tons, Wheat to Liverpool, prior to arrival, £3 7s 6d; Br bk Penshaw, 729, Wheat to Cork for orders, private; Br ship Garcioch, 1,177, Wheat to Cork for orders, private; ship H. S. Gregory, 2,020, Wheat to Liverpool, Havre or Antwerp, privats; Br ship Sussex, 1,205, Wheat to Cork for orders, private; Br ship Salisbury, 1,094, Wheat to a direct port, U. K. or cont., private; Br bk Oberon, 1,181, Wheat to Cork for orders, private; Ger bk F. H. Drews, 624, Wheat to Cork for orders, private; Swedish ship Ssvenas, 768, Wheat to Cork for orders, privats; Br ship Shslimsr, 1,596, Wheat to Marseilles, owners' scount; Br ship City of Nankin, 986, Wheat to Cork for orders, £3 5s; Fr bark Regina Coeli, 344, Wheat to Falmouth for orders, owners' account; Brig Percy Edwsrd, 219, sssortsd esrgo, to Tshiti, lsid on; ship St. Charles, 1,166, Wheat to Cork for orders, £3; Br ship Fiji, 1,407, Wheat to Liverpool, private; Br ship Auriga, 1,571, Wheat to Cork for orders, prior to arrivsl, £3 7s 6d; Br ship Denbighshire, 1,366, Wheat to Cork for orders, prior to arrival, privats; ship America, 2 034, Wheat to a direct port, private; ship Columbus, 1,853, Wheat to Liverpool, Hsvre or Antwsrp, private; ship Trlumpbsnt, 2,046, Wheat to a dirsct port, private; ship Glory of the Seas, 2,102, Wheat to Liverpool or Havre, £2 17s 6d; ship Lucile, 1,394, Wheat to Cork, U. K., £3 2s 6d; Br ship Borrowdsle, 1,197, Whsat to Livsrpool, private; Br ship India, 912, Wheat to Oork, private; Br ship The Douglas, 1,428, Wheat to Liverpool, £3 2s 6d; Br bk Strathearn, 1,201, Wheat to Cork, £3 5s; Br bk Boldon, 656, Whsat to Cork, U. K., private.

The Chicago Grain Trade.

CHICAGO, Sept. 17th—The unsettled and rainy weather during the greater portion of the past week has imparted a buoyancy to the Wheat market to which it has during the present season been a stranger. Prices have ranged from $1.02 to $1.06, closing at about $1.03, for No. 2 Spring. The last two days of the week were pleasant, and the receipts began to increase so rapidly that prices at the close were lower, and trading has been chiefly of a local and speculative character, and cash wheat has sold uniformly higher than the options. What at this time last year was selling at $1.09. Receipts for the week have been—Wheat, 292,000 bushels; Corn, 834.000; Oats, 251,000; against 529,000, 676,000 and 359,000 bushels respectively last year. Shipments have been—Wheat, 274,000 bushels; Corn, 1,662,000; Oats, 378,000; against 415,000; 1,068,000 and 355,000 bushels respectively, last year. Corn has ruled rather high, with fair activity, closing at 45¾c. Oats have generally sold higher, but closed at about the inside price, 33c.

New York Market.

NEW YORK, Sept. 18th.—Owing to the absence of any considerable supply of sound Wheat, the advanced prices claimed for fine and for cool Spring have greatly restricted the export movement, which, in the early part of the week, was very large. Old Spring is in liberal supply; but the major part of it is more or less unsound, and not suited to the wants of shippers; hence the sales have been comparatively moderate. For No. 2 Spring, for October delivery, $1.18 is bid, without leading to any business; in new Winter there has been quite a movement for future delivery at a further advance, sales having been made at $1.22 for No. 2 red Winter, $1.28@1.30 for amber do., and $1.35 for white Michigan At the close the market was quiet and tame for old, strong, firm and fairly active for new Winter of all grades.

Eastern Wool Market.

NEW YORK, Sept. 18th.—Although the Wool market has displayed a good deal of activity, trade has in a great measure been restricted by the advanced views of holders. On nearly all descriptions of clothing material, an advance is demanded, and from present appearances, although the views of holders are not at all times met, there is no denying the fact that a higher range of values will prevail much sooner than a lower one. Goods are now selling more freely, and prices are somewhat better; manufacturers, therefore, are in want of stock, and to obtain it must extend their limits. Stocks are now exceedingly light, and but few lots of really choice Wool remain unsold. The new Fall is arriving slowly, and attracts more attention; slightly burry lots are held at 14½c., and strictly free at 17@20c. There has not been any movement in foreign; the supply, however, is not large. The sales for the week are: 225 bales Spring California, 18@27½c.; 35,000 lbs. new Fall do, 16@17c.; 6,000 lbs. old Black do, 15c.; 23,000 lbs. Oregon, 30c.; 3,000 lbs. low do, 23c.; 23,500 lbs. combing do, 32c.; 25,000 lbs. Colorado, 18@19c.; 3,000 lbs. western Texas, 15@18c.; 6,000 lbs. eastern do, 23@27c.; 18,000 lbs. Georgia, 27c.; 100,000 lbs. Michigan fleece, 36c.; 25,000 lbs. No. 1 and No 2, Ohio, 38@40c.; 5,000 lbs. combing do, 50c.; 35,000 lbs. mixed do, 35c.; and 5,000 lbs. old Fall California, 14,000 lbs. pulled do, 20 bales Rio Grande, 40,000 lbs. Oregon delaine, 20,000 lbs. coarse Texas, 265 bags lamb pulled, 39 do short X do, 23 do No. 1 do, 13 do No. 2 do, 10,000 lbs. unwashed Western fleece, and 10,000 lbs. New Jersey combing, on private terms.

BOSTON, Sept. 16th.—The demand for Wool is quite active, manufacturers being free purchasers, with more or less speculative inquiry. Prices are a shade higher for fleeces. The tendency of the market for all kinds is upward. Sales of Ohio and Pennsylvania for the week have been 270,000 pounds, and include considerable medium and X at 37@40c; XX and above, 43@44½c. We quote the market firm at 38@40c for X and No. 1, and 43@45c for good and choice XX. Michigan fleeces advanced a shade, and attracted considerable attention, with sales of 414,000 pounds heavy and choice X at 33@37c, mostly at 35@37c, and there is now little to be had under 36c. Combing and delaine fleeces are in demand and prices are firm. Sales of 146,000 pounds combing and delaine—39@45c for delaine, and 45@50c for washed combing, and 30@36c for unwashed. The demand for California is good, and new Fall is arriving more freely. The sales of this description during the past week were 920,000 pounds, at 16 cents per pound currency. Transactions in Spring aggregate 474,000 pounds, mostly at 22@30c. Good lots are selling at 27@30c. Pulled Wool is steady and firm, with sales of 169,000 pounds super and extra at 26½@42c, mostly at the range of 32@40c.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week Aug. 30	Week Sept. 6.	Week Sep. 13.	Week Sept. 20
Flour, quarter sacks	42,993	71,075	52,935	61,731
Wheat, centals	305,541	497,684	485,636	394,552
Barley, centals	56,938	52,170	54,196	68,994
Beans, sacks	349	488	2,326	283
Corn, centals	4,143	1,615	1,875	2 454
Oats, centals	9,494	5,096	12,162	15,611
Potatoes, sacks	22,981	15,360	19,331	20 300
Onions, sacks	2,557	1,539	1,318	768
Wool, bales	2,935	3,668	4,795	5,079
Hops, bales	172	280	446	435
Hay, bales	2,619	2,940	2,139	2,575

Bags—There has been an arrival of another cargo of Bags from Dundee. Prices are reported easier than last week, the range being from 11 to 12c for Standard Wheat.

Barley—The Eastern export for Brewing Barley continues and considerable sales have been made. Prices are maintained. We note sales as follows: 1,100 ctls choice Bay Brewing, $1.10; 1,600 do Coast do, $1.02½, both to New York by rail; 4,000 do do, $1.02½, at San Jose to go overland; 1,600 do fair Coast do, 92½c, 450 do do, 97½c, all gold: 2,000 do Feed, 92½c; 450 do bright do, 95c; 120 do do, 90c per ctl, all silver; 1,008 sks Bay Feed, 92½c, silver; 600 do light Coast Brewing, $1, gold: 200 sks Feed, 90c; 300 do do, 95c per ctl, silver; 100 sks Feed, 92½c; 1,200 ctls do do, 90c, both silver; 2,000 do choice Bay Brewing, $1.07½, gold; 700 sks Coast Feed, 92½c; 700 do good do, 95c; 300 do Coast Chevalier, 92½c. All the foregoing are for silver. 200 sks poor Coast, 90c: 300 do fair do, 95c, both lots silver.

Beans—The quotations for some sorts are reduced in our tables.

Corn—Prices are a point lower. We note sales: 200 sks small round, $1.27½, silver; 100 do do, $1.25, gold; 100 sks small round, $1.22½; 150 sks large White, $1.22½; 800 sks large Yellow, $1.12½, gold; 100 do small do, $1.25, silver; 200 sks Golden Drop, $1.27½ per ctl, silver.

Dairy Produce—Prices for Dairy Products are unchanged from last week. The recent advance is calling in large quantities of packed Butter; kegs and pickled roll. One house reports receipts of 100,000 lbs during the week. Cheese is unchanged.

Eggs—Fresh Eggs are selling at 40@45c. Imported Eggs range from 20 to 30c, the latter price being gained by lots forwarded by express.

Feed—Ground Feeds are unchanged. Hay maintains its former range: from $7.50 to $13.50 according to quality. We note sales: 42 tons poor Volunteer, $9.50; 49 tons good Oat and Clover, $10; 41 do good Wild Oat, $12.

Fruit—Fruit is still in abundance. Grapes are thick as leaves in Vallambrosa; prices are given below. The Staghound is in from Tahiti bringing 30,000 Oranges. Quite a trade is done in this Fruit. The first supplies of the season were received on March 30th, and since that date, at regular intervals, 15 partial cargoes have arrived. This Fruit helps this market out very nicely. When the Los Angeles orchards cease to yield for the season our Fruit dealers draw on Tahiti, and thus we have Oranges all the year round. Together with the quantity brought by the Stagbound, the total receipts of Tahiti Oranges for the season to date have been 4,473,000

Hops—Hops are advanced a point in our quotations, the range being now 20@25c. We were shown a lot of fine Napa Hops for which an offer of 25c was refused. Holders are firm. The New York trade is reported by Emmet Wells, for the week ending September 8th, as follows:

The new Hop season of 1876 and '77 opens under very favorable auspices, especially for the growers, who now will have a fair chance of being well remunerated for their labor during the past year, especially those who have succeeded in producing a choice article. We are promised a new outlet for our surplus Hops this season. The German crop is short, and for the first time in the history of the American Hop trade, we shall export Hops to Germany. How the quality of our produce will be liked there remains to be seen. Shippers will act with great caution, sending over only a few on the start—just enough to show the quality and to test the market, and to see what kind of a price the Germans are willing to stand. A wider range of prices will rule this season than last, owing to the unevenness of the growth. The yield of New York State and Wisconsin has fallen considerably short of last year, but in California and the Territories there has been a large increase, so that it is safe to say the yield this year stands 140,000 bales against 150,000 last year.

Oats—Receipts of Oats during the week were unusually large, and the market shows signs of yielding a little. We note sales: 200 sks Inferior Coast, $1 35; 150 do good do, $1 55, both silver; 1,000 do fair do, $1 40; 340 do do, $1 45; 500 do do, $1 50 ₱ ctl, all half silver; 526 sks dark Coast, $1 25; 200 do feed, $1 62½, half silver; 100 do do, $1 65, gold; 1,000 sks fair feed, $1 40 half silver. Choice Surprise sell up to $1 75 ₱ ctl; 50 sks feed, $1 55, silver; 225 do, $1 65, half silver; 800 sks Surprise at $1 70, half silver; 700 sks good Coast feed, $1 50, half silver, 526 sks dark inferior Feed at $1 25.

Onions—Onions are dull. The best selections do not exceed 650 ₱ ctl.

Potatoes—Potatoes are a shade cheaper. Onffey's Cove now has an extreme of $1.05. Half Moon Bays range from 60@85. We note sales: 800 sks choice Half Moon Bay, at 77½@82½c; 500 do, 75@80c; 1,000 do, 80c. Sweet potatoes experienced a decline during the early days of the week, but have regained their price. We note sales of sweets as follows: 250 sks, $1.

Poultry—Poultry is a shade lower. Prices are given below.

Provisions—Fresh beef is a shade lower and abundant. Mutton is unchanged, with ample supply. The supply of hogs is increasing, and there is an active demand for packing. The market for cured meats, lard, etc., is firm, and the demand is large for export and the interior.

Rye—Rye is advanced in price. Sales have been as follows: 100 sks, $1.50; 260 do, $1.65 ₱ ctl, both half silver.

Vegetables—Prices are not materially changed. Green Peas and String Beans range a little lower; tomatoes improve; Watermelons are more sought for, and Canteloupes are cheaper. Full prices may be found in our tables.

Wheat—Prices are unchanged, but the market is stronger because of favorable foreign advices. We note sales: 5,500 ctls good Shipping, $1.50; 6,000 do choice do, $1 52½; 6,000 do choice Tehama Club to a shipper, $1.53½; 600 do Superfine Milling, $1.32½; choice Milling is held at $1.55; 100 sks Superfine, $1.20; 200 ctls do $1.25; 2,600 sks ordinary Milling, $1.42½; 300 sks Milling, $1.50; 600 ctls do, $1.50; 705 sks choice do, $1.55; 200 sks Milling, $1.50; 400 ctls do, $1.50; 5,500 ctls do, $1.52½; 1,000 do choice do, $1.55; 160 sks Superfine Milling, $1.20; 300 do Fair Milling, $1.50; 400 sks Fair Shipping at $1.50; 1,200 sks good do at $1.52½ and 2,600 sks Choice Milling at a private price, quotable at $1.57½; 600 sks Fair Milling at $1.50; 300 do $1.50; 100 sks Superfine at $1.25; 500 sks choice Proper at $1.55; 340 ctls White Australian, $1.57½; 1,000 sks choice Shipping, $1.52½; 200 do Fair Milling, $1.50 ₱ ctl.

Wool—Prices for Wool in this market are unchanged. The receipts are large and transactions are considerable. The following are reported: 1,000,000 lbs of all kinds, as follows: 250,000 lbs fall and 30,000 lbs Oregon spring on private terms; 100,000 lbs Oregon Valley, 25c; 175,000 lbs do, 22@24c; 588,000 lbs fall, 9@15c; 8,000 lbs spring, 18c; 190,000 lbs fall, 13@15c; 70,000 lbs Oregon Valley, 20c; Eastern Oregon, 25c; 24,000 lbs free fall, 14c.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., Sept. 20, 1876.

BEANS.			
Bayo, ₱ ctl	2 00	@	2 25
Butter	1 90	@	2 25
Pea	1 92½	@	—
Pink	2 25	@	2 50
Sm'l white	1 60	@	1 80
Lima	1 90	@	—
BROOM CORN.			
Common, ₱ lb	2	@	3
Choice, do	4	@	5
COTTON.			
Cotton, ₱ lb	15	@	18
DAIRY PRODUCE, ETC.			
BUTTER.			
Cal. Fresh Roll per lb	42½	@	45
Point Reyes	45	@	47½
Pickle Roll	32½	@	35
Firkin	25	@	30
W'st'n Reserve	16	@	25
New York	—	@	—
CHEESE.			
Cheese, Cal., lb	10	@	15
do Old	—	@	—
Eastern	12½	@	15
EGGS.			
Cal. fresh ₱ doz	40	@	45
Ducks'	40	@	—
Oregon	37½	@	—
Eastern	21	@	30
FEED.			
Bran, per ton	17 00	@	17 50
Corn Meal	28 00	@	—
Hay	7 00	@	13 50
Middlings	24 00	@	—
Oil cake meal	—	@	33 50
Straw, ₱ bale	55	@	60
FLOUR.			
Extra ₱ bbl	4 50	@	5 00
Superfine	4 00	@	4 25
Graham, ₱ bbl	4 75	@	—
FRESH MEAT.			
Beef 1st quality lb	6	@	7½
Second do	5	@	5¾
Third do	3½	@	4
Mutton	3½	@	4
Pork, undressed	6¾	@	6½
do, dressed	9	@	9¾
Veal	5½	@	6
Milk Calves	5½	@	7
GRAIN, ETC.			
Barley, feed ctl	80	@	1 00
do brewing	1 00	@	1 10
Chevalier	1 30	@	1 40
Corn, White	1 20	@	1 22½
do Yellow	1 17½	@	1 22½
Oats	1 40	@	1 60
Milling	1 80	@	1 90
Rye	1 50	@	1 55
Wheat shipping	1 50	@	1 52½
do milling	1 55	@	1 60
HIDES.			
Hides, dry	13	@	14
do wet salted	5½	@	7
HONEY, ETC.			
Beeswax, per lb	25	@	30
Honey in comb	10	@	12½
do Strained	6	@	8
HOPS.			
New crop	20	@	25
NUTS—Jobbing.			
Almonds h'rd sh'l lb	8	@	10
do, soft sh'l	18	@	20
Brazil do	14	@	16
Cal. Walnuts	12	@	14
Chile Walnuts	11	@	12½
Pecanuts	17	@	18
Peanuts per lb	8	@	9
Filberts	15	@	16
ONIONS.			
Union City ctl	—	@	—
Stockton	50	@	65
New Red	50	@	—
Silver Skins	50	@	65
POTATOES.			
Petaluma, ₱ ctl	—	@	—
Salt Lake	—	@	—
Humboldt	—	@	—
Half Moon Bay	60	@	85
Cuffey Cove	1 00	@	1 05
Early Rose new	50	@	65
Sweet	1 00	@	—
POULTRY & GAME.			
Hens, per doz	6 50	@	8 50
Roosters	5 00	@	6 50
Broilers	3 50	@	4 50
Ducks, tame, doz	7 00	@	8 50
do Muscovy	8 00	@	9 00
do Canvass	—	@	8 00
Geese, per pair	2 00	@	2 50
Wild Gray do	3 00	@	4 00
White	1 50	@	2 00
Turkeys, Live, lb	15	@	16
do Dressed	20	@	22
Quail, per doz	—	@	—
Snipe, Eng., doz	—	@	—
Doves, per dozen	50	@	57
Rabbits	1 00	@	1 50
Hare, per doz	2 00	@	3 00
Venison lb	6	@	9
PROVISIONS.			
Cal. Bacon, L't, lb	16	@	17
do Medium	15½	@	16
do Heavy	—	@	15½
Lard	14	@	16½
Cal. Smoked Beef	12½	@	14
Eastern do	—	@	—
East'n Should's	10	@	12
Hams, Cal	15	@	15½
do Armour	—	@	17
do Worster's	19	@	19½
do Dupee's	19	@	19½
do Davis Bros'	19	@	19½
SEEDS.			
Alfalfa, Chile lb	8	@	10
do California	11	@	12
Canary	9	@	10
Clover Red	—	@	22
do White	50	@	55
Cotton	6	@	10
Flaxseed	—	@	3½
Hemp	12½	@	—
Italian Rye Grass	25	@	30
Perennial do	20	@	30
Millet	10	@	12
Mustard, white	5	@	6
do, Brown	3	@	3½
Rape	5	@	8
Ky. Blue Grass	30	@	—
do 2d quality	29	@	—
Sweet V Grass	—	@	75
Orchard do	30	@	35
Red Top do	—	@	25
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	20	@	25
Timothy	11	@	13
TALLOW.			
Crude, ₱ lb	6¼	@	6½
Refined	8¾	@	9
WOOL, ETC.			
FALL—			
Free	11	@	13
Choice	13	@	15
Burry	9	@	11
Oregon	17	@	23

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., Sept. 20, 1876.

FRUIT MARKET.			
Oranges Mex. ₱ M	—	@	—
Tahiti, do	30 00	@	35 00
Cal. do	—	@	—
Limes, Mexican, ₱ M	10 00	@	12 50
Malaga Lemons, ₱ bx	—	@	—
Cal. ₱ 100	2 00	@	2 50
do Sicily ₱ b'x	15 00	@	—
Bananas, ₱ bnch	2 00	@	3 00
Cocoanuts, ₱ 100	6 00	@	7 00
Pineapples, ₱ doz	—	@	—
Apples, ₱ box	50	@	1 00
do Choice	—	@	1 00
Apricots, lb	—	@	—
Blackberries ose	—	@	—
Cherries ₱ lb	—	@	—
Plums lb	2	@	4
Prunes lb	2	@	4
Figs	3	@	4
Gooseberries	—	@	—
Huckleberries	—	@	—
Strawber's ₱ cs	5 00	@	7 00
Pomgranates	—	@	—
Raspberries	—	@	—
Currants, ₱ os	—	@	—
Cranberries bbl	13 00	@	14 00
Peaches, ₱ box	1 25	@	2 00
Pears, ₱ bx	50	@	75
do Choice	1 00	@	2 00
Crab Apples, ₱ lb	2	@	3
Grapes ₱ box	20	@	50
Rose of Peru	25	@	50
Muscat	40	@	75
Sweetwater	25	@	40
Black Hamburg	25	@	50
Tokay	2	@	50
Morocco	1 00	@	1 25
Quinoes	1 00	@	—
DRIED FRUIT.			
Apples, ₱ lb	6	@	8
Pears, ₱ lb	—	@	10
Peaches, ₱ lb	7	@	7½
Apricots, ₱ lb	10	@	12½
Plums, ₱ lb	5	@	6
Pittod, do ₱ lb	13	@	15
Raisins, imported	3 25	@	3 75
Cal. Raisins	5	@	10
Black Figs, ₱ lb	5	@	10
White, do	12½	@	15
Prunes	12½	@	17
Citron	28	@	30
Zante Currants	9	@	10
VEGETABLES.			
Asparagus ₱ lb	—	@	—
Beets ₱ ctl	—	@	75
Cabbage, ₱ 100 lbs	50	@	60
Carrots, ₱ 100 lbs	50	@	62½
Cauliflower, doz	50	@	62½
Celery, doz	50	@	—
Garlic, ₱ lb	2	@	2½
Green Peas ₱ lb	1½	@	2
Green Corn ₱ doz	5	@	15
Sum'r Squash ₱ box	40	@	50
Marro'fat Squash, tn	10	@	—
Artichokes, ₱ doz	—	@	—
String Beans, ₱ lb	1½	@	2
Lima Beans	—	@	3
Parsnips	—	@	—
Shell Beans	1½	@	2
Peppers, green, bx	40	@	60
Okra	5	@	6
Cucumbers, ₱ box	—	@	50
Tomatoes, box	35	@	50
Egg Plant, box	1 25	@	1 50
Rhubarb box	—	@	—
Lettuce, doz	10	@	—
Turnips, per ctl	50	@	62½
Watermelons doz	1 25	@	1 50
Canteloupes do	1 00	@	1 50

LUMBER.

CARGO PRICES OF REDWOOD.

Rough, ₱ M	$18 00
Rough refuse, ₱ M	14 00
Rough clear, ₱ M	30 00
Rough clear refuse, M	20 00
Rustic, ₱ M	32 50
Rustic refuse, ₱ M	22 50
Surfaced, ₱ M	30 00
Surfaced refuse, ₱ M	20 00
Flooring, ₱ M	28 50
Flooring refuse, ₱ M	18 00
Beaded flooring, ₱ M	30 00
Beaded floor, refuse, M	20 00
Half-inch Siding, M	20 00
Half-inch siding, ref. M	16 00
Half-inch, Surfaced, M	25 00
Half-inch Surf. ref., M	20 00
Half-inch Battens, M	20 50
Pickets, rough, ₱ M	1 00
Pickets, rough, p'ntd	13 00
Pickets, fancy, p'ntd	26 00
Shingles, ₱ M	35 00

PUGET SOUND PINE—Retail Price.

Rough, ₱ M	22 50
Fencing, ₱ M	22 50
Flooring and Step, ₱ M	32 50
Flooring, narrow, ₱ M	35 00
Flooring, 2d quality, M	25
Laths, ₱ M	3 50
Furring, ₱ lineal ft	—¾

REDWOOD—Retail.

Rough, ₱ M	22 50
Rough refuse, ₱ M	18 00
Rough Pickets, ₱ M	18 00
Rough Pickets, p'd, M	20
Fancy Pickets, ₱ M	30
Siding, ₱ M	25 00
Surfaced and Long Beaded	37 50
Flooring	35 00
Do do refuse, ₱ M	25 00
Half-inch surfaced, M	32 50
Rustic, No. 1, ₱ M	40 00
Battens, lineal foot	—¾
Shingles, ₱ M	3c

RETAIL GROCERIES, ETC.

WEDNESDAY, M., Sept. 20, 1876.

Butter, Cal. ch'ice	40	@	50
Cheese, lb	18	@	30
Eastern	25	@	30
Lard, Cal., lb	—	@	18
Eastern	20	@	25
Flour, ex. fam, bl	6 25	@	6 50
Corn Meal, lb	2½	@	3
Sugar, wh. crsh'd	12½	@	13½
do lt. brown, lb	8	@	9½
Coffee, green, lb	23	@	35
Tea, fine blk,	50, 65, 75	@	1 00
Tea finest Jap,	55, 75, 90	@	100
Candies, Admant'e	15	@	25
Soap, Cal., lb	7	@	10
Rice, lb	8	@	12½
Yeast Powders	1 5	@	2 00
Bowen Bro. large can per doz	5 00	@	—
Small, do	2 50	@	—
Bowen's Cream Tartar lb	—	@	75
Can'd Oysters, dz	2 00	@	3 50
Syrup, S F Gol'n	75	@	1 00
Dried Apples	10	@	12
Dr'd Ger. Prunes	12½	@	14
Dr'd Figs, Cal	9	@	10
Dr'd Peaches	11	@	15½
Oils, Kerosene	30	@	40
Wines, Old Port	3 50	@	5 00
do Fr. Claret	1 00	@	2 50
do Cal., dz bot	3 00	@	4 50
Whisky, C.K, gal	3 50	@	5 00
Fr Brandy	4 00	@	8 00

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by SUTRO & Co.]

SAN FRANCISCO, Sept. 20, 3 P. M.

LEGAL TENDERS in S. F., 11 A. M., 91 to 91½. Silver 5¾@6.

GOLD in N. Y., 110

GOLD BARS, 889 to 890. SILVER BARS, 11@12 per cent. discount.

EXCHANGE on N. Y., 50@55-100 per cent. premium for gold; on London bankers, 49; Commercial, 49¾; Paris, five francs per dollar; Mexican dollars, 5 per cent. discount.

LONDON — Consols, 96⅛; Bonds, 102¼

QUICKSILVER in S. F., by the flask, per lb, 44@45c.

Breeders' Directory.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at $50 cts a line per month, payable quarterly.

CATTLE.

A. MAILLIARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

P. STANTON, Sacramento, Cal., breeder of choice Jersey Cattle. Bulls, Cows and Calves for sale.

SHEEP AND GOATS.

GARNIER BROS., Encino Ranch, Los Angeles Cal., breeders of pure French, Spanish, and Saxon Merino Sheep. Price, from $25 to $50, each.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co. Cal., breeder of Pure-Blooded French Merino Sheep

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

T. A. WILSON, Grayson, Stanislaus county, Cal. Breeder and Importer of Spanish Merino Sheep.

LANDRUM & RODGERS, Watsonville, Cal., breeders of Pure Breed Angora Goats.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

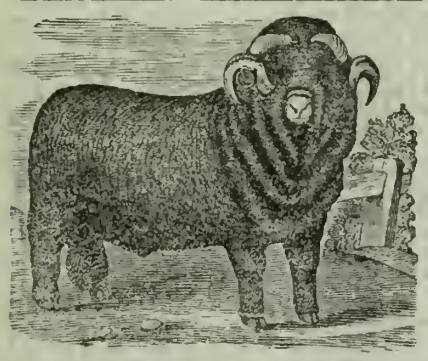
M. FALLON, Cor. Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Fowls for Hatching from Pure Bred Fowls.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

SWINE.

ALFRED PARKER, Bellota, San Joaquin Co., Cal., Breeder of Improved Berkshire Swine.

Live Stock Notices.



Pure Blooded French Merino Rams

And 100 Choice Young Ewes

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda county, Cal., near Niles Station, on the Western and Southern Pacific railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proven to be the heaviest shearers in the world.

☞NEW MILCH DURHAM COWS FOR SALE.

Thoroughbred Southdown Sheep,

VERY CHEAP.

A few Ewes, two to three years old, at $10 each. Several young Rams and Lamb Ewes at $8 each. Having just purchased 80 head I am over-crowded, and offer at these prices to reduce stock. Address,

M. EYRE, Napa, Cal.

Grangers' Bank of California,

42 California Street,

SAN FRANCISCO.

Authorized Capital, $5,000,000.

OFFICERS:

PRESIDENT.....GILBERT W. COLBY.
MANAGING DIRECTOR.....C. J. CRESSEY.
CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

The Bank was opened on the first of August, 1874, for the transaction of general banking business.

Dewey & Co. {224 Sansome St} **Patent Agt's.**

The GORHAM SEEDER AND CULTIVATOR COMBINED



No Other Machine Presents such an Array of Useful Devices, and, taken together, they Constitute the Gorham Seeder a Machine Distinct and Separate from all others of its Class.

We Ask all Those in Want of a Seeder to Call upon us and Give our Machine a Thorough Examination, or Write Directly to Us.

We can produce single testimonials that would fill this page, claiming for it a reputation as broad as its use is extensive. Among the hundreds who have used them we refer to as many as space will admit, in different parts of the State, who are using from 1 to 16 machines each:

Dr. Glenn, of Jacinto; R. S. Cary, Sacramento; Charley Coyle, Woodland; G. W. Scott, Yolo Co.; Bullard & Co., Chico; John Simpson, Tehama; E. Hunter, Princeton; John Beggs, Colusa; Murdock & Jones, Colusa; Overhiser, of Grangers' Union, Stockton; A. L. Layre, Fresno Co.; I. Friedlander, San Francisco; John Mitchell, Modesto; Grangers' Union, San Jose.

THE SIX-FOOT MACHINE, with two horses, will seed 12 acres per day easily. THE EIGHT-FOOT MACHINE will seed 16 acres per day; THE TEN-FOOT MACHINE, with four horses, will seed twenty-five acres per day; THE TWELVE-FOOT MACHINE will seed 34 acres per day; THE FOURTEEN-FOOT MACHINE, with six horses, will seed 40 acres per day. ☞ Extras of all parts always found with us.

Our Assortment of Harrows is the Most Complete to be found in the State.

Iron Harrows; Hard Wood Harrows, with adjustable hinges; Teeth of the Best Toe-Cork Steel; seven and nine Chisel Tooth Cultivators, with Reversible Teeth.

COLLINS' CAST CAST STEEL PLOWS.

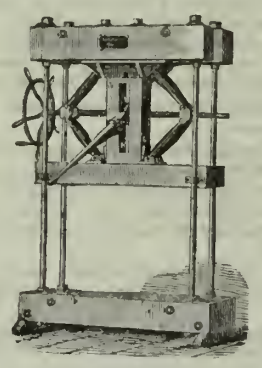
The people of the coast need no longer be humbugged by imitation Cast Cast Steel Plows. We will keep the Genuine Collins' Steel Plows, made expressly to suit the wants of this trade; also, a full line of Extras for the above goods, which we guarantee to fit.

Feed Cutters, Wine and Cider Mills, Barbed Wire for Fencing, Wagons, Spring Wagons, Halliday Windmills, Etc.

KELLER & CO., 43, 45 and 47 J Street, Sacramento, Cal.

BOOMER PRESS,

For WINE, CIDER, PAPER, LARD, TALLOW, TOBACCO,



Etc., Etc.

We Claim for the BOOMER & BOSCHERT WINE PRESS a Great Superiority over any other in the Market, for the Reasons:

FIRST—That while it is STRONG, and equal to the hydraulic in power, it is of SIMPLE construction.

SECOND—Its power is ACCUMULATIVE, increasing as the substance becomes more dense.

THIRD—It will PRODUCE MORE WINE with the least LABOR, and in the least TIME.

For particulars and prices, address

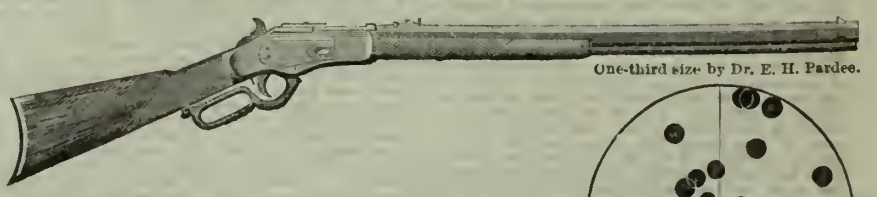
A. L. FISH & CO.,

9 & 11 FIRST STREET, San Francisco.

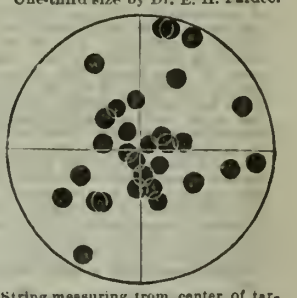
50 **Visiting Cards**, with your name finely printed, sent for 25c. We have **100** styles. **Agents Wanted. 9** samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

Winchester Repeating Rifle.

MODEL 1873.



One-third size by Dr. E. H. Pardee.



String measuring from center of target to center of each shot, 32¾ inches. Average distance of each shot, 1 9-100 inches.

The Strength of all Its Parts,

The Simplicity of Its Construction,

The Rapidity of Its Fire,

The Power and Accuracy of Its Discharge,

The Impossibility of Accident in Loading,

Commends it to the attention of all who use a Rifle, either for Hunting, Defense, or Target Shooting.

The San Francisco Agency is now fully supplied with all the various kinds and styles of Arms manufactured by the Winchester Repeating Arms Company, to wit:

Round barrels, plain and set, 24 inch—blued. Octagon barrel, plain, 24 inch—blued. Octagon barrel, set, 24, 26, 28, 30 inch—blued. Octagon barrel, set extra heavy, 24, 26, 28, 30 inch—blued. Octagon barrel, set 24, 26, 28, 30—extra finished case hardened and check stocks. Octagon barrel, set extra heavy, 24, 26, 28, 36 inch—extra finished—C. H. & C. S. Octagon barrel, set, 24, 26, 28, 30 inch. Beautifully finished. C. H. and C. S. Known as "One of One Thousand." Octagon barrel, set, gold, silver and nickel plated and engraved. Carbines blued, also gold, silver and nickel plated. Military rifle muskets, model 1873. Rifles, muskets and carbines, model 1866. **Reloading Tools, Primers and Parts of Arms.**

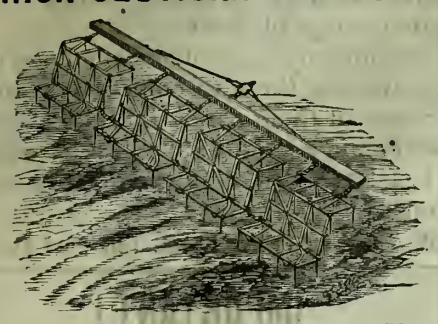
A heavy stock of Cartridges Manufactured by the W. R. A. Co., for all kinds of Rifles and Pistols, constantly on hand and warranted the best in the market.

JOHN SKINKER, No. 108 Battery Street, San Francisco,

SOLE AGENT FOR THE PACIFIC COAST.

Agricultural Articles.

IRON SECTIONAL HARROW.



This Harrow was Awarded the First Premium at the California State Fair in 1875.

The undersigned, having purchased the patent right of this Harrow for California, are now manufacturing them in Roseville, Placer County, and would call the attention of Farmers to the superior merits of this Harrow over all others now in use.

As its name indicates, it is made in sections of about three feet in width, each section having four bars, in which the teeth are inserted, and by connecting the sections with links, the Harrow is formed.

Should a farmer require a Harrow upon his farm to do all kinds of work, he should purchase six sections, which would be suitable for four horses, and would cut 18 feet in width; by disconnecting two sections he will have a two or three-horse Harrow, cutting about 13 feet. One section alone is complete in itself, and suitable for garden work, with one horse. The Harrows are made of the best quality of iron, and with teeth warranted to be steel.

We give a few of the many reasons why we claim superiority for these Harrows over all others in use on this Coast:

First—By the lightness of draft, taking into consideration the amount of work it does.

Second—By working uneven or rolling ground just as well and as evenly as if it was entirely level.

Third—They are made of Iron and Steel, and therefore are not affected at all by sun or rain, or by heat and cold; they are always tight, and ready for use; they are also durable. A farmer purchasing one has a Harrow that will last a life time.

Fourth—The teeth being fastened with a nut and screw into the cross bars, should one break, another can be inserted in a moment. We are making three sizes, all being the same in width, but different in depth and weight only.

Prices, from $12.50 *to* $15.00 *per Section.*

All orders sent to

BREWSTER & CO.,
Roseville, Placer Co ,

Will be promptly attended to, and satisfaction guaranteed in all cases.

CAUTION.

It has come to our notice that certain parties are now making this Harrow in this State, and that several of them have been sent here from the East. Now this is to *caution* all persons against making, selling or buying them, so made and offered for sale, as we shall enforce our rights in relation to the matter, and would call the attention of all persons infringing upon our patent, to the *law* in regard to it.

BREWSTER & CO.,

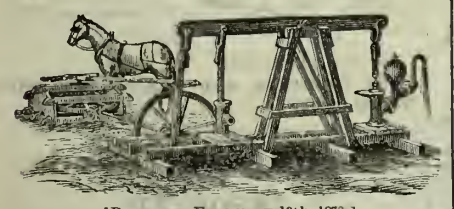
Roseville, July 15th, 1876.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power



[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,

Cor. J and 10th Sts., Sacramento.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.

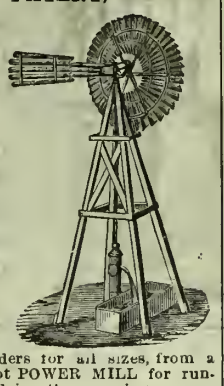
The Famous "Enterprise"

(PERKINS' PATENT)

Self-Regulating, Farm Pumping, Railroad and Power

WINDMILLS,

Pumps & Fixtures,



Have been in use on the Pacific Coast in the towns and farming districts for over four years, and wherever they have been sold (and there are thousands of them out) they are doing their work as well as when put up. A careful perusal of our Circulars gives a fair representation of them and shows their simplicity.

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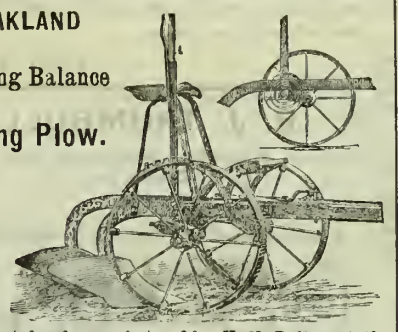
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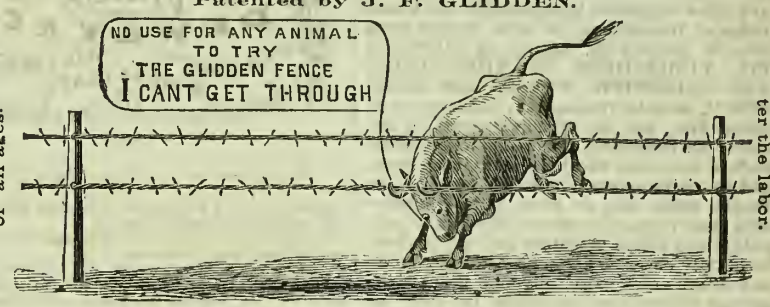
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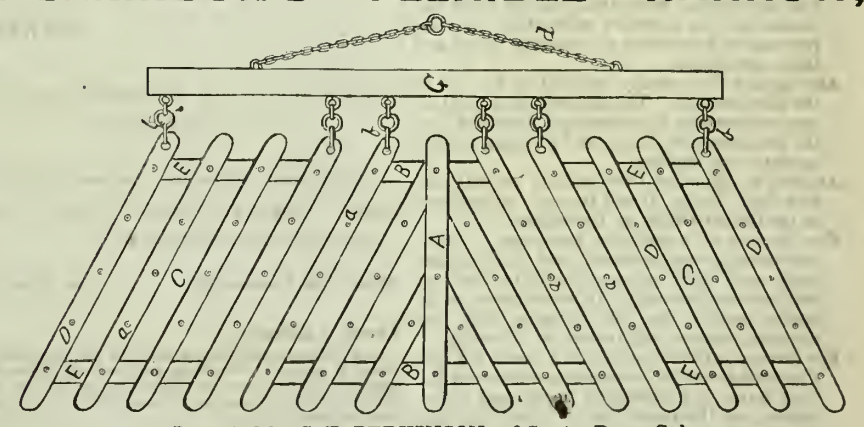
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Merits are claimed for this Harrow over all others in use. It gives good satisfaction in its work, and should be thoroughly tested by farmers. It has the build of durability. It can be made for $35 on this Coast.

This Harrow is made in three sections, which are connected to a draft bar by links and clevises. The bars are about four feet six inches long, and there are four bars in each of the two outside sections. The center section is filled up as seen in the engraving. The Harrow is made of good Eastern oak, with 63 steel teeth, and covers about 13 feet width of swath.

Reasons for the Superiority of this Harrow.

First—By the lightness of the draft, two horses, of ten hundred each, can draw it on loamy soil with ease.

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Third—Where other patentees have failed in setting the teeth so that each and every tooth will make a separate and distinct mark, this Harrow will do it on trial.

The Harrow is manufactured by the inventor, J. E. PERKINSON, at Santa Rosa, Cal., to whom applications for rights can be made.

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3d. The needle being in the goods at the time the feed takes place, renders it impossible to full one piece while the other is stretched.

4th. The VERTICAL FEED-BAR being behind the needle renders it capable of sewing elastic goods, making a smooth and flexible seam, with stitch alike on both sides—thus enabling the sewing of any number of thicknesses without basting, and operating with equal facility in the heaviest as well as the lightest fabrics.



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A well-constructed model is generally first needed, if the invention can well be thus illustrated. It must not exceed 12 inches in length or hight. When practicable, a smaller model is even more desirable. Paint or engrave the name of the article, and the name of the inventor, and his address upon it.

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For further information, send a stamp for our illustrated circular, containing a digest of PATENT LAWS, 112 illustrated mechanical movements, and HINTS and INSTRUCTIONS regarding the RIGHTS and PRIVILEGES of inventors and patentees, which will be furnished post paid. Also a copy of NEW PATENT LAW of 1870

When the invention consists of a new article of manufacture, a medicine, or a new composition, samples of the separated ingredients, sufficient to make the experiment (unless they are of a common and well-known character), and also of the manufactured article itself, must be furnished, with full description of the entire preparation.

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MESSRS. DEWEY & Co., Patent Solicitors: *Gentlemen*—Yours of the 29th ult. containing my patent to Elevated R. R. duly received, and I hereby return my sincere thanks to the MINING AND SCIENTIFIC PRESS Patent Agency for your promptness and honesty in regard to our business connections. I have received a flood of circulars from Eastern firms, desiring to deal with me, but I have declined any communication with them and prefer, as soon as circumstances will permit, to negotiate with and patronize a home institution; one in which I have faith and confidence—DEWEY & Co.

Again thanking you for your promptness in securing my patent, I remain, obediently yours,

WM. H. HARRISON.

IMPROVED.—Dewey & Co., publishers of the MINING AND SCIENTIFIC PRESS and the RURAL PRESS, now have the leaves of both these sixteen page sheets cut and stitched, which is an improvement that all readers of that otherwise inconvenient form of journal will appreciate very much. Every farmer would be a gainer were he to subscribe for the RURAL. It is decidedly a valuable paper, and the SCIENTIFIC PRESS is no less so to mining men.—Inyo Independent.

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That all the honest industries of our State may be advanced in connection with that of agriculture, our columns being ever open to the discussion of the merits of all progressive improvements.

That the RURAL, after having been read and pondered over by the home circle, can be filed away for future useful reference, or forwarded to the old Eastern fireside of the Atlantic border, in aid of an increasing immigration to our sunny clime.

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J. L. THAAP—San Francisco.
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A. U. STRONG—Lake and Napa counties.
F. L. TUCKFIELD—Contra Costa county.
WM. J. LAWRIE—Sonoma and Marin counties.
G. KUTNOW—San Joaquin county.

THE RURAL PRESS.—Glancing over the columns of a late number, we are pleased to find how much excellent reading matter it contains. It keeps a farmer posted in the latest information of real value. It is up with the times in suggestions and advice, answers to queries, etc. It tells of new trees, seeds and plants, mentions discoveries and useful recipes. The farmer; his wife, boys, girls and help, can all read it with pleasure and profit. It fairly represents each part of the State to immigrants. It is now giving a short sketch and statistics of each county. We shall watch with interest when it gets down to Santa Barbara Co. It gives prominence to an article from our colums on the state of the crops in this valley. Farmers, you can't afford to be without that paper.—*Lompoc Record.*

WOODLAND, CAL., Aug. 8th, 1876.

MESSRS. DEWEY & CO.—*Gents:* Your letter containing the patent for my Centennial churn has come duly to hand, and you will please accept my many thanks for the prompt manner in which you attended to the business intrusted to your care, and I will take great pleasure in recommending you to anyone having anything to attend to in your line. I am having a number of the churns put up, which will be ready for sale in a few weeks. Yours truly, JAMES ROOT.

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"I would not be without that RURAL PRESS for twenty dollars a year," says an old subscriber to our agent in Yolo county; "That is the best paper out for good and useful information. I have had the reading of it for two years, but now will take it."

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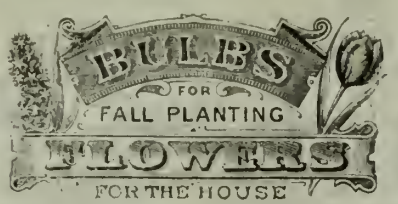


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Four Two-Year Old Thoroughbred

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—AND—

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ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

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Dewey & Co. {224 Sansome St.} **Patent Agt's.**

PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, SEPTEMBER 30, 1876. [Number 14.

The Dairymen's Meeting.

On Wednesday of next week, October 4th, our dairymen will have an opportnnity to decide whether they oan reap any advantage from an organization of their own, in which they can confer with each other concerning sll matters pertaining to their industry. We have alluded to this subject freqnently snd believe that our readers nnderstand fully the reasons why we advocate a society of dairy producers. So far there has been nothing bnt a temporary organization effeoted, because it was the sentiment of those present at the May meeting to wait nntil October, and nntil all dairymen should fully understand the movement, before giving the sooiety a permanent form. Every dairyman, therefore, who joins the society at the October meeting will have a full voice in shaping its polioy and government. An election of officers for the year will take place and the sphere of the society's work may ho defined.

In addition to matters of form, the meetings will have a disposition to engage earnestly in discnssions of practical valne to dairy workers. In the letters which we have received concerning the meeting we notice that the range of snbjects which different dairymen will bring forward is wide and valuable.

The practicsl value of different breeds of cattle for the production of milk will be introdnced by the president, A. Mailliard, who will relate his experience with the Jerseys, and Robert Ashburner, who will describe his success with Short Horns. Both these gentlemen believe in putting cattle to the test of the pail, and what they say, and the discussion which will draw out the experience of all present, will furnish mnch valuahle information.

Processes of mannfacture will also be fully reviewed. Henry Clanssen, of Point Reyes, will describe his ideas of success in dairying and the experiments which he has made with deep snd shallow setting of milk for cream. T. B. Crandell, of Point Reyes, will discuss butter making as an art. Upon sll the points advanced by these gentlemen full discussion will be invited and criticism expected. In oheese making Mr. E. A. Davison, of Gilroy, will present the lessons he has learned from the season's work, and these will furnish a text for snbseqnent speakers.

On the general points in dairying we expeot interesting discnssions. Prof. E. W. Hilgard, of the University, has promised some remarks on the treatment of pastures. I. N. Hoag, agricnltnral editor of the *Record-Union*, an able writer and a practical dairyman, will give an essay on the dairy in the interior of the State. H. Y. Stanley, of Morro, will describe the dairy interest in San Luis Obispo county, and will bring forward other important topics.

The marketing of dairy produce and the transportation of it from the dairy to the city are subjects whioh need thorongh examination, and several speakers have mentioned their readiness to lay facts before the society.

We have mentioned a few of the themes whioh will come before the meeting, to give some idea of its oharacter. It is expected that everything of dairy interest will be presented. The meetings will begin in Y. M. C. A. hall, on Snttor street, between Kearny and Dupont, at 1 P. M., to give those who come to the city by the morning trains an opportunity to attend. The meetings will continue on Wednesday evening and Thursday as long as time is required for the consideration of important matters.

An Appeal for the Boys.—We have mentioned before, the work which is undertaken by the "Yonths' directory and boys' shelter," a free employment bnreau, maintained by gratuitous contributions. The object of the organization is to secure work and homes for those boys who need them. So far as we can learn the enterprise is worthy of confidence and the encouragement of the public. The object is oertsinly commendable, and any of our readers who can give a home to a boy or give him work whereby to maintain himself, oannot do better than confer with the manager, A. P. Dietz, at 520 Bush street. The work is for the general good. He who gives a willing boy a chance to make a man of himself, serves the State.

The Juniata.

Many a school-boy of the last generation will find his ear ringing with schoolhouse songs at the thought of "The Blue Juniata." Our illustration fitly portrays one of the many entrancing scenes along the gentle river. The location is on the line of the Pennsylvania railroad, and travelers on that line can recall the landscape.

Massiveness, softness of outline, and variety, are the distinguishing peculiarities of the Juniata scenery. The miniature river, in its course



of 100 miles through the numerous outlying mountains, has apparently overcome the obstacles in its way by strategy as well as by power. At many places it has dashed boldly against the wall before it and torn it asunder; at others it winds tortuously around the obstructions—creeping stealthily through secret valleys and secluded glens. At some points the mountains appear to have retired from the attacking current, leaving numerous isolated hills standing, as sentinels, to watch its progress. But the severed mountains, the towering embankments, and the sentinel-like hills, are all toned into form and molded into shape by the action of the elements and the foliage of nature, leaving no abrupt precipioes and but few nakod rocks to mar the uniform beauty. The valleys and many of the hills are brought under cultivation, and some of the latter rise in the distance, presenting alternate squares of yellow, groen, and brown, showing the progress of agrioultnral industry, while their summits are crowned with clumps of forest trees, indicating the luxuriance of the growth before the march of civilization invaded it. Every hour of the day—every change of the season—gives new tints to these mountains and valleys. The morning mist often shrouds them beneath its veil; and as this is penetrated and dispersed by the sun, cloud-like forms sail away toward the sky, pausing at times amid the higher summits as if to rest before taking their final flight to join their sisters in the illimitable firmament. The tints of evening spread over them golden and purple halos, while deep and dark shadows sink into the water and creep up the wooded embankments. Spring clothes the entire landscape in a tender green. Summer deepens this into a darker tint, and intersperses it with the yellow of the ripening harvest. Autumn scatters its gems over all, lighting up the forests with many bright hues of changing foliage; and winter brings its pure mantle of white, over which tower the ever-verdant pines, or repose dark beds of rhododendrons.

To Our Friends in Los Angeles.—Mr. George G. W. Morgan will start on Monday next for Los Angeles, to represent the Rural Press at the Southern District fair. We trust that our friends will aid Mr. Morgan in his collection of valuable information concerning the progress of the vicinity he visits, and in extending the nsefulness of our journal.

Real Sweet.—We have reoeived from Nathaniel Jones' orchard, Lafayette, a box of large sweet apples, for which we are particularly thankful, as we oan buy nothing approaching their quality in the market.

Grapevine Mildew.

We supposed the leading facts concerning the grapevine fungus, commonly called mildew, were generally known. It seems, however, that there is considerable lack of interest concerning it in some minds. We had a call a few weeks ago from a man who informed us that he had discovered a sure cnre for phylloxera and proposed to show ns vines which he had treated. He bronght in the vines soon after, and when we told him that they showed no trace of phylloxera, but were attacked by the fungus known as mildew, he condescendingly informed us that it was "all the same animal." This is of course nonsense. The only relations which can exist between the animal phylloxera and the vegetable fungus may be a possible weakening of the plant hy one pest and thus rendering it an easy prey for the other, and even this is merely hypothetical. We propose at an early date to give a full description of the mildew fungus in our Vineyard department, so that any needing information may have it.

In this connection we notice that the fnngus has received the attention of the microscopical society during the week. Grape leaves were received from Mission San Jose and put in the hands of J. P. Moore for examination. He reports: The grape leaves prove to he infested with the fungus commonly called *Oidium Tuckeri*, but which recent mycologists class ss sn *Erysipha*. This is by no means a new fungus, but has been fully figured and described in European works. It is common in many parts of the old world. It does not, I think, occur on our native vines, but rather on snoh as have been imported. Berkeley says: "No species of *Erysipha* occurs, so far as I am aware, in very warm climates." It first makes its appearance as a fine, delicate, cottony layer upon the surface of the leaves, the branches and fruit; very soon the leaf assumes a pale color, and brown or reddish brown spots begin to appear, and the vitality of the leaf is soon destroyed. The destruction seems to take place not so much through an abstraction of the chlorophyll of the leaf as by shutting down upon the shell structure, excluding light and air, and, as it were, squeezing the life ont of the tissue. To what extent the ravages of this fungus may slready have proceeded on our coast, I am unable to say. I have received specimens from several localities, showing that it has hegun to spread. As to the hest remedy for it I can only say that finely powdered sulphur is, as far as present known, the best remedy. Tersulphuret of potassium, hyposulphite of potash, and sulphuret of potassium answer, perhaps, the same purpose. I would suggest that as far as practicable the dead leaves he gathered and burned. It would afford me muoh pleasure to receive specimens from any part of the State or coast where it has made its appearance, and to ascertain the variety of vine most affeoted.

California Stock in the Sandwich Islands. The latest received copy of the *Hawaiian Gazette* says: Five more pure hreed Merino rams from the Berkeley ranch, near Oakland, California, were hrought by the *D. C. Murray* on the 17th inst. for the Lanai ranch. The importations of pure Merino stock, by different ranches, that have taken place during the past four months, amount to 97 sheep: 83 rams and 14 ewes, at a cost, including freight, of $8,432. Of these Merinos, 85 are from C lifornia, and 12 from New Zealand. We understand that orders are sent for about as many more, and so our fine stock importations for this year will amount to about $15,000. This shows not only that our grazing interests are in a healthy progressive way, but that our graziers are determined on spending a considerable share of their income for improving their bands.

The California Fruit Show at Philadelphia.—We learn by dispatches that the California display of fruit in pomological hall, at the Centennial, was highly esteemed and attracted much attention. A oorrespondent writes of the show that the fruit looked as fresh as if exposed for sale in San Francisco.

There are 112 deep-water vessels in port.

CORRESPONDENCE.

Reese River Valley.

EDITORS PRESS:—This valley extends from the Humboldt southward nearly 200 miles, with average width of five miles, but widening out in places to as many leagues.

With the exception of two or three neighborhoods a mere bird's eye view from the stage coach window, or some adjacent mountain peak, was all that was had of the valley. It did not appear to be so densely populated as Truckee meadows, Carson valley, or portions of the Humboldt—the ranches, like angels visits, being few and far between, the water for irrigation scarcer and the soil apparently thinner. It is altogether likely that, in one respect, the necessities of the valley might, to a certain extent, be met by artesian wells, no less than four having been sunk by Mr. S. L. Cohoon at Battle Mountain, and said to be the first and only wells of the kind in the State, finding good, pure water at the depth of 130 feet. One of them was flowing at the rate of six gallons per minute, or about 8,000 in 24 hours, the cost for sinking and piping (three and a half-inch gas pipe,) not exceeding $260. A remedy for the lighter soils might be found in the thousands of tons of manure going to waste around Austin and the stage-stands between this point and Battle Mountain. It was a matter of no little surprise that so valuable an adjunct to the farm had not long ago been utilized, when wagons were seen passing empty, and that almost daily, from Austin to different points of the valley.

A few facts were gathered from Mr. George Watt, an intelligent farmer of Silver creek, in regard to his method of enriching the land, as also some other items of sufficient novelty and interest to repay you and your readers, I trust, for the perusal.

A Portable Sheep Corral

Had been introduced from Scotland, at a cost, landed here, of about $25 for every 100 yards, large enough to inclose nearly an acre of ground and made of strong twine, similar to a fish net of three-inch mesh and in hight about three feet. It is removed every other day, by this means not only keeping the flock free from scab and dirt, but, at the same time, sufficiently manuring the soil to produce double the amount of grain for the next five years to come—an item of gain well worth noticing in a country where barley brings $60 per ton.

A Pest.

Nearly every country has its pests, the blackbird, the grasshopper, the gopher, or the squirrel. The pest of Nevada is the rabbit. The question was asked more than once on the line of my route, "Can the PACIFIC RURAL PRESS furnish us a remedy against the inroads of our destructive little enemy, that comes upon us like the swarming locust of Egypt, destroying in some places hundreds of acres of grain, mowing it to the very ground, particularly in neighborhoods where their enemy, the coyote, had been killed off?"

The answer of Mr. George Watt, alluded to above, is: "Fence them out. Taking the idea from the way they are usually ensnared in nets, as an experiment he enclosed a field of 100 acres with a good, well-packed brush fence, four feet wide by five feet high, and found it a complete barricade against all further invasions. In some places white rags or pieces of paper were hung out, or small hills or monuments, six to eight feet apart, were piled up, with a bottle set on the top of each as a scarecrow, a preventive I should be inclined to have little faith in, if the stupid, voracious little quadruped is as fond as it is said to be of barley juice, and is no more afraid of bottles than some bipeds not a thousand miles from Austin.

Mr. Editor, do let me digress a little here. I have something on my mind that must out, or, like the old bottles with new wine, I certainly shall burst. If you don't see fit to publish it you can suppress it, that is all. I must say I never saw the like of bottles in any country before, outside of California; big bottles and little bottles, whole bottles and broken bottles, bottles of every color, red, black and blue, here and there an ink bottle, but soda bottles, wine bottles, brandy bottles, etc., piled like "Ossian on Mount Pelion;" not much wonder the building of fences with bottles was thought of. With mountains of rocks on every side, the very flower-beds of the yard are lined around with inverted bottles. Now that the mountain has labored and brought forth a mouse (the Latin has been forgotten) our usual sober gait may be resumed again.

Stock Raising

May be looked upon as the leading business of the valley. A few very agreeable hours were whiled away on a ranch 12 miles from Austin, where Mr. Bercham, the proprietor, took special pains and delight in pointing out the fine points of as beautiful a band of young horses as can be found in any country. His whole band consists of 400 head, and his cattle will number at least 1,500. Out of about 400 cows usually 100 are milked at a time, yielding, during a portion of the year, as much as 900 pounds of butter per month. He has also about 7,000 head of sheep. There are many other large herds, particularly of cattle and sheep, as, for example, Mr. George Bateman, 10 miles south of Battle Mountain, has about 1,500 head of cattle; Mr. George Watt about 1,200 head and about 4,000 sheep. A few instances have been cited from which some idea, however imperfect, may be formed as to the extent and importance of the business.

Hay, Grain and Vegetables,

In the order arranged, would rank next also in order of production, the annual hay yield being set down at about 8,000 tons and grain at 2,000, much more attention being paid to the latter within the past two years, since it has been discovered that the

White Sage Land,

Formerly considered almost worthless, is by far the most valuable for the production of the different classes of cereals. Mr. Thomas, last year, on this kind of land, raised as high as 80 tons of barley on a 40-acre tract, or at the rate of two tons to the acre. The white sage grows from six to eight inches in hight, and bears a striking resemblance to its more cultivated cousin of our gardens. It makes an excellent food for cattle in the autumn and winter. Cattle are said to prefer it at such seasons to the best grasses of the older States. As to fruits, except in some favored localities, the State of Nevada may expect to look to California and Oregon for her main supplies; the same may be said also in regard to melons and some of the tenderer vegetables, owing to the frequency and severity of the frosts. Mr. Wm. Pollock has a fruit and vegetable garden in Carigo canyon, about seven miles from Austin, with about 60 acres under cultivation, supplying the city and vicinity with every variety of vegetables, (unless tomatoes and cucumbers are excepted,) potatoes in particular showing remarkably well, the Early Rose variety yielding usually from three to five tons per acre. The soil is a rich black loam, amply supplied with water from many a mountain rivulet. Gathered from their playful career into little reservoirs, they are made to part into a thousand tinier streams, to pursue a lazier and more snail-like pace between the long green rows, now straight, now angular, or meandering with many a curve, till absorbed by the soil or the more thirsty sands of the distant plain. The garden, lined on either side with ridges of gray granite, extending their silvery slopes to its very borders; the background of towering mountains, veiled by their dark, lengthening shadows, the center a carpet of varied hue, the living green of vine or fruit or flower, clumps of yellow squash or pumpkin of still more golden tint, presented a scene, on the whole, as viewed from the valley, sufficiently pleasing to remind one of the apt and charming simile of the old proverb that likens "a word fitly spoken to apples of gold in pictures of silver." None but a view such as this could have given birth to the thought or to the poetical imagery in which it is arranged.

A. C. K.

Austin, September, 1876.

A Chapter on Ships.

EDITORS PRESS:—The Pacific coast civilization is peculiar. In some respects it may be said to lead a new school. Industrial progress has received an impetus that has carried the world by storm. Hydraulic engineering and those branches of industries embraced in agricultural and transit appliances may be said to be revolutionized, but the genius of advancement is destined to achieve still greater triumphs.

The skill that has done so much in hydraulics has now to devise means to utilize the great highway of nations, the ocean, in order to bring within the practical reach of our producers the markets of the world. The problem which this involves will when solved be of incalculable value in the diffusion of that kind of knowledge which produces harmony.

With these premises we proceed to make as plain as practicable without diagrams, plans that have been devised for increasing the speed and capacity of ocean craft without increased cost of propulsion. In the modeling of hulls, depth of draft has been heretofore thought to be indispensable; but late experiments have demonstrated the practicability of lessening the draft materially and thereby giving greater buoyancy and consequently less friction or retardation.

The model which is used to effect this may be described in the general term of "saucer," with some modifications of bow and stern. The propeller is a combination of screw and arranged in a partially enclosed arch in the vessel's bottom, amidship. Its peculiarity consists of long narrow oar-like blades, set in a spiral, the whole length of the shaft, extending two-thirds the whole length of the ship, and completing the circle of the shaft in its length. By this application the full and continuous hold of the blade upon the resisting element is secured, and the jar of concussion usual in rough weather obviated. Breadth of beam gives steadiness and lightness under sail, admitting of great spread of canvas. By these means a speed and capacity is had which heretofore has been impracticable. It is estimated that upon long voyages a speed of 20 miles per hour is quite possible by this arrangement. This admits of the movement of freights and passengers by sea, at a cost that will allow of the transit between Europe and this coast, of goods and passengers that are now debarred by the expense.

F. M. SHAW.

Los Angeles, Cal., Sept., 1876.

East and West.

[Written for the RURAL PRESS by PHILMORE.]

Mark Twain's "Sunday School Grapes" must have grown in California and the insignificant affairs he found in the Holy Land were the kind Æsop's fox talked about. But there is poetry in distance, and scriptural fruits are like some other scriptural mysteries—greatly magnified. Solomon in his songs speaks of "an orchard of pomegranates with pleasant fruits; camphire with spikenard and saffron. A fountain of gardens, a well of living water and streams from Lebanon."

Now, in Scripture this is all very beautiful, but in reality it is quite commonplace. The very name of pomegranate carries with it a charm that the reality is not endowed with. The lily of the valley, though fragrant and beautiful, is not more so in reality than in name. As for wells of living waters, they may be found in almost anybody's back yard. And the streams from Lebanon, in reality, have no comparisons to our pure mountain streams that have flowed on unsung since the world began, and still pour their crystal waters down the mountains' sides, when the streams from Lebanon live only in story. How does the rose of Sharon compare with our Cloth of Gold or hundreds of others that have no name in ancient history? When that far off and much talked of land is analyzed we find that it does not come up to our expectations. Indeed, we find it in almost every particular vastly inferior to our own great country; but the poetry will ever remain to feed the hungry fancies of those that forever look far away for the sublime and beautiful.

The above train of thoughts suggested itself while visiting one of the most lovely spots upon the face of the earth; where art has courted nature and all combined to form a picture that is deserving of a living frame.

How many lovely spots there are upon this earth that the eye of civilized man never rested upon, and how many there are almost at our door that the great masses know as little of. Travelers come amongst us for a few days and seek out the wonderful things that we never behold. The writer has been a resident of San Francisco for a quarter of a century and yet he could have had no conception of the beautiful Eden that is hidden behind the bare hills scarce four miles from the city of Vallejo.

Our old homes can boast of many lovely spots to which the mind unbidden turns when we are exiled from their sacred precincts. In our lonely hours our spirits hover around them and endow them with almost supernatural influence. They are the shrines at which we worship when the tired body claims a rest.

California is peculiarly calculated to elevate and instruct the human mind. The wonderful works of the Creator are nowhere more sublimely displayed than in this favored State. The boundless valleys, the towering, snow-capped mountains, the beautiful lakes that nestle among them, the great forests that grow where the snow cools the heated breath of summer and wraps the autumn in its chilly mantle; where spring flowers bloom in midsummer, while the plains below are a verdureless sea. Singular and interesting geological formations exist everywhere throughout the coast, as beautiful as they are mysterious. Hidden lakes are sleeping in crystal caves, whose high arched chambers are fretted with stalactites that glint and glitter in the rays of light that steal through the fissures or reflect the explorer's torch. Medicinal waters are found almost everywhere. We tap the earth and the life and health-giving element gushes out to allay our thirst and banish disease. Fruits of every description and variety grow to perfection. The fig, the orange, the lemon and the pomegranate grow side by side with the apple, pear, peach and plum.

Our mountains are the treasure vaults of our nation, from which we draw our gold and silver that at once pays our bonds and insures our prosperity. In spring our vast plains are carpeted with flowers of many hues, that constantly change while moisture remains to nourish them, and then they scatter their seeds for another year; while the matured grass, losing none of its virtues, fattens the flocks and herds that roam over them. In autumn our spring comes and the farmer's work begins; so that while the Eastern States are bound with fetters of snow and ice, we are in the midst of flowers.

"Such is the patriot's boast: Where'er he roam,
His first, best country ever is at home.
And yet, perhaps, if countries we compare,
And estimate the blessings which they share,
Though patriots flatter, still shall wisdom find
An equal portion dealt to all mankind.
As different good by act or nature given,
To different nations makes their blessings even."

With all the bounties of this favored land, there are other countries not less favored. Even where the ice king binds in his fetters six months of the year and "winter lingers in the lap of spring," there are many joys and pleasures that here are unknown.

It were worth a year of life to wander o'er the violet-clad meadows of spring, or through the swamps in autumn, inhaling the perfume of the wild grape or listening to the thousand tinted leaves as they rustle and flutter in the breeze. In summer the falling showers purify the air and keep green the fields. The fearful lightning is a blessing—and constant change lessens the monotony of life.

Orchard Homes.

EDITORS PRESS:—Within the past few days I have seen so many pretty orchard homes that should I attempt any description of them I should hardly know where to commence or to leave off. For every man to be able to "sit under his own vine and fig tree," is rather more than a figure of speech in California, it is the commonest reality, or might be, to every one who has an acre of land on which to plant a vine and fig tree to sit under. This oft quoted picture of the quiet peace and plenty of the far back olden time, taken in the literal sense of representing the chief fruit and ornamental surroundings of a rural home, would be considered rather a slim affair among our splendid suburban orchard homes

Perhaps the most attractive feature of our fruit farms, and that which never fails to call forth the admiration and wonder of all Eastern visitors, is such a happy combination of the beautiful and ornamental with the useful—not only in the arrangement of the different kinds of fruit trees and vines so as to present the most pleasing effect to the eye, but in ornamenting the borders, lines of land, walks and yard-plots with a profusion of the most beautiful foreign and native trees and shrubs. The approaches from the road-side to many of these places are so ingeniously and artistically ornamented that even cheap nest buildings, half hid away among the trees and vines, have an air of taste and elegance; and the peeps and views here and there to the orchards and vineyards beyond, remind one of the landscape gardener's skill. And perhaps there is no country in the world where there is so wide a range for cultivating to perfection so many of the most beautiful and fruitful trees, vines and plants upon the same soil. This, I was thinking, was peculiarly true of that neighborhood known as "the Willows," just south of San Jose, but which may be equally true of many other localities in this valley.

The peach, plum, cherry, apple, pear and grape, and most of the small fruits, and all kinds of vegetables, do well here; and all the ornamental trees and vines raised in this climate do equally well.

This large tract of willow-land is divided up into small farms, many of them of ten acres each, with good roads and avenues crossing each other at right angles; the roads are mostly well bordered with trees.

I have taken full notes of many of these places, which I may publish at some future time, but for the present can only give brief notes of a few of them.

The Orchardists

Mr. S. Newhall, of the Los Gatos nurseries, has four of these choice little farms, ranging from 10 to 25 acres each, all well stocked with fruit trees and nursery stock.

Mr. I. H. Ingalls has a 12½-acre home joining Mr. W. C. Geiger's "Cherry Vale" place on the south; it is all in fruit, mostly cherry and prune, looking splendidly. His 400 Black Tartarian cherry trees look especially fine as to size, form and uniform appearance.

Mr. Ingall's arrangements for irrigating his place when needed are neat, convenient and substantial. The water is pumped from two strong wells by a small steam engine. His engine house and other buildings are well arranged for convenience and comfort. The day I was there he was pumping water for a neighboring orchard, which was carried thither by an underground flume.

Mr. M. Britton has a nice orchard home of 14 acres, fronting on Cherry avenue. The land is number one for trees, as his 500 cherry, 500 prune and 500 apple trees will demonstrate. All his improvements are neat and convenient. A small steam engine, of some new and improved pattern, does efficient work by sending an abundance of water to every foot of the land when needed. The front yard is well ornamented and the whole place looks thrifty and well.

Dr. C. R. Rollins, who has a choice 22-acre fruit farm, showed me some splendid samples of fruit, and his land is equally well adapted to raising vegetables; corn, tomatoes, melons, squashes, and everything else, looked well, except the beans fronting the road. I judge that land too rich for beans.

The doctor has about 16 acres in orchard, 1,000 prunes, 1,400 plums, assorted, 300 cherry and 1,800 of apple, pear and peach, and some fine ornamental trees and vines about the house.

At Mr. Leeman's nice 10 acre-place, I saw some fine apple and pear trees bearing wonderful loads of fruit. Mr. L. does not believe in trimming in his trees so much as some of his neighbors; he thins out some of the wood but lets the limbs grow out as long as they will; when loaded with fruit, as they are now, they bend and arch over from the trunk of the tree till they rest on the ground, without breaking but little. Some of these trees look from a little distance like a mound or mass of fruit and leaves—you can see no tree. On some white Winter Pearmain apple trees, six years old, and about six inches in diameter, he estimated there were nine boxes of apples each.

Mr. L. informed me that from six acres of his orchard—mostly apples and pears—he had in three years realized the nice little sum of $4,500, and that without any labor of picking and selling. The fruit was sold on the trees. What will pay better than that? G. W. M.

Santa Clara, Cal., Sept. 23d, 1876.

A Testimonial.

EDITORS PRESS:—In the RURAL of the 9th inst. is a commnnication from Mr. Caldwell, charging Mr. Trumbull, of San Francisco, with dishonesty, etc. Now, as to the business transactions between these two gentlemen I know nothing. But I have this to say, in regard to bnsiness transactions which I have had with Mr. Trumbull myself: Some two years ago I sent to Mr. Trumbull, in behalf of my firm, a check on a San Francisco bank for $250, together with an order for orange, lemon, lime and other seeds, for use in our nurseries. The check was drawn in Mr. Trumbull's own name, and he might have taken the advantage of ns if so disposed, but on the contrary, our order was filled to our satisfaction. Since that time we have ordered all our seed of him, always with the same result. He has invariably been prompt and gentlemanly in his dealings with us. We believe him to be a gentleman.

P. S. RUSSELL.

Riverside, Cal., Sept. 16th.

ARBORICULTURE.

The Forests of the World.

The forests of Europe are estimated as being 500,000,000 acres.in extent, or about 20 per cent. of the whole area of the continent. In North America it is reckoned that 1,460,000,000 acres are covered with trees, of which area 900,000 000 are in British North America. In South America forests occupy 700,000,000 acres, the total amount for the two continents of the New World and Europe gives 3,600,000,000 geographical miles. The proportion of forest land to the whole area of Europe, as above stated, is computed at 20 per cent.; in America 21 per cent. Supposing, therefore, 20 per cent. to be the proportion in Asia, Africa and Australia, the grand total of the forests of the world over a space of 7,734,000,000 geographical miles The areas of the State forests and woodlands are estimated at the following figures in the following European countries: Prussia, 6,200,000 acres; Bavaria, 3.294,000 acres; France, 2.700,000; Austria, 2,230,000; Hanover, 900,000; Wurtemberg, 469,087; Saxony, 394,000; England, 112,376. The range in the hight of trees varies from the miniature Alpine willow of a few inches to the stupendous Sequoia, which grows to a hight of 350 feet, although, indeed, it is stated that one of eucalpyti often reaches a hight of 420 feet in Victoria. In Solavonia a tree called the sapin attains a hight of 275 feet, and the umbrella pines of Italy 200 feet. The California big tree is said to girth 96 feet. The destruction of woods and forests, however, is very enormous, and in the majority of instances no attempts are being made for their reproduction. In South Africa, we are told, millions of acres are destroyed and made waste annually. In New Zealand the 30 per cent. of tore t existing in 1830 had sunk to 28 in 1868, and 18 in 1873, which rate of diminution, if continued. would result in the total destrnction of the New Zealand forests by 1889. In America, in the United States especially, the consumption of timber is enormous, and although public attention has been oalled to the matter and the United States statute of March, 1875, imposes a fine of $500, or a year's imprisonment, for a wanton injury or destruction of trees, and also a fine of $200, or six months' imprisonment, for allowing cattle to injure trees "on National grounds," the yearly consumption and improvident use of timber is almost incredible. Althongh, says the *Scientific American*, there are no available statistics to show the exact rate of speed with which we are using up the wood supply, it is easy to see that it is being done with great rapidity. Taking the legitimate use of lumber alone, industries based on its manufacture constitute the second in point of magnitude in America, and are exceeded only by the iron interest. About 150,000 persons aro stated to be employed in producing sawed lumber alone; $143,500,000 are invested therein, "and 3,265,000,000 shingles and 12 756,000,000 feet of lumber are yearly mannfactured." On the secondary indnstries based on the use of lnmber as a raw material, carpentry, cabinet-making, ship-building, etc, millions of people are employed. According to Professor Brewer's assertion, wood forms the fuel of two-thirds the population, and the partial fnel of nine-tenths of the remaining third; add this to the former estimate, and some general idea will be obtained of the enormous drain upon American forests that is constantly in progress. As a fact, it is well known that in 1871 as many as 10,000 acres of forests were stripped of their timber to snpply Chicago with fuel, and yet no attempt is made to reprodnce —*Land and Water*.

EXTRACTION OF A LIVING INSECT FROM THE EAR.—The *Archives Medicales Belges* relates the following case: A little girl, three years old, put an insect, "*bete a bon Dieu*," into her ear. Sharp cries, agitation, convulsive symptoms, ensued; injections of water were made without result. The physician then conceived the idea of asphyxiating the insect by means of chloroform; he dropped four drops of chloroform upon a small piece of cotton which he introduced into the ear. Immediately the child ceased crying, and complained no fnrther of any disagreeable sensation; the insect had become asphyxiated; an injection of warm water brought it away dead, and no further trouble ensued.

THE VINEYARD.

California Raisins.

The production of raisins in California is rapidly assuming the proportions of an important industry. The grape crop now maturing is probably the largest that the State ever produced, and with an overstocked market, both for table and wine, more than usual attention is being direoted to the manufacture of raisins It is generally conceded that the growing of grapes in this State at one and one-half cents per pound is a profitable business, and the most experienced prodncers have demonstrated that this rate can be realized from the crop if it be turned into raisins. Three pounds of Muscat grapes will make one pound of raisins, while the cost of curing and boxing is estimated at one and one-half cents per pound, and if one cent be allowed for freight to San Francisco and commission for selling, we have seven cents per pound as the total cost of production. No good California raisins have yet been sold as low as this, but it is deemed best to keep the estimate on the safe side. At seven cents per pound the California fruit can successfully compete with the imported, and a large business can be done with the Eastern States. The annual requirements of this market are estimated at from 18,000 to 20,000 boxes, the quantity varying somewhat with the price. Last season the receipts of California raisins at this port aggregated upward of 18,000 20-pound boxes, and the production of the State reached at least 20,000 boxes. Of this quantity about 6,000 boxes were shipped to New York, St. Louis and Chicago. The best authorities estimate the production this year at 60.000 boxes, consequently a market for about 40,000 boxes will have to be sought for in the Eastern States. If the quality of the new crop comes up to that of the best produced last year, not the least difficulty is anticipated in placing the surplus, though it were ten times greater. The possible proportions that this trade may attain are shown by the imports of foreign raisins into this country, which for several years have ranged from 1,000,000 to 1,300,000 packages, valued at $1,500,000 to $2,500,000, at New York alone.

Here, then, would appear to be at least one branch of the fruit bnsiness open to our farmers, that has not yet been overdone, and is not likely to be for years to come. The curing of raisins, unlike wine-making, requires no costly appliances. A piece of ground that has a smooth surface sloping to the south and provided with movable covering to keep off dews and showers, is all that is required. Indeed, some of the finest raisins brought to this market have been cured upon the ground between the rows of vines upon which the grapes were grown. It is a well-settled fact among the most experienced producers in the State, that however superior machine dried fruit of other varieties may be, the best raisins are cured by sunshine.—*Call.*

The St Helena Wine Growers.

The St. Helena vinicultural club held a meeting recently in St. Helena. From a report of the meeting furnished to the *Star* by H. A. Pellet, Secretary, we take the following paragraphs of general interest:

H. W. Crabb, as committee to visit the Orleans Hill vinicultural association, reports as follows:

In compliance with the resolutions passed by the club, I have visited the Orleans Hill vineyard, situated in the foothills at the mouth of Cache creek canyon, 20 miles west from Woodland, and contains about 125,000 vines. The soil is of a chalky or decomposed limestone formation, presenting on the higher portions of the vineyard a whitish or grayish appearance. In 1850 about 60 different varieties were planted, fruited and experimented upon, and as fast as one variety was rejected, it was grafted with another giving the greatest promise. This weeding out process was continued until, for wiue purposes, the association which was organized in 1869 had discarded all hut two varieties, the Orleans and the Riessling, and the Orleans is now considered superior to the Riessling in every respect, and indeed you only have to see the vines side by side at this season of the year, to come to the same conclusion. The vine is of medium sized growth, clothed with a dense foliage of bright green thick leaves, covering a heavy crop of uniform, compact clusters of yellow, rather thick skinned berries, bearing double the quantity of Riessling, with short pruning, and ripening its fruit there about the first of September, here about the 15th or 20th. It is also one of the hardiest plants of its species, and appears to be entirely exempt from disease or attack by insects, and I did not see a single bunch affected by the sun.

I consider it a most desirable variety to graft upon the old Mission vine. Persons wanting cuttings are requested to order them early. They have adopted and uniformly practice closed fermentation in making both red and white wines. Mr. John Carroll, of Sacramento, is now the owner and proprietor of the vineyard, and is conducting the business of wine making on the premises through the superintendency of Mr. Leighthart. I was cordially received and hospitably entertained. I now present to yon samples of the Orleans grape and its wine, so as to enable you to pass upon the merits of its product. The above information and the box of grapes are due to the compliments of the superintendent and foreman of the vineyard. The name of the latter I have forgotten. The samples of wine are the compliments of the agent, Mr. J. M. Curtis, of San Francisco, who says that when bottled a sufficient length of time, it develops a very fine aroma, and he considers it the finest wine on the coast.

Conference.

The following resolutions were offered by President Charles Krug, and on motion adopted, viz. :

Resolved: That the President of the State vinicultural association be requested to call a meeting of said society at as early a date as possible, for the purpose of a conference with the Pacific congressional delegation (said delegation being invited to attend), to take into consideration the urgent necessity of pressing the passage of the bill for the relief of fruit distillers as early as practicable at the next session of Congress, it being admitted by all grape growers, as well as wine makers and fruit distillers, that unless something is done soon the vinicultural industry of the Pacific coast is destined to suffer an irreparable injury.

Resolved: That in order to secure a full attendance of said coogressional delegation, the President of the State vinicultural association be requested to communicate with our Senators and Representatives, and ascertain from them at what time it would be convenient for them to meet us; also to notify local societies of the time of said meeting, by publication in some paper or papers.

Grape Syrup.

A long discussion arose on the subject of the disposition of our grape crop, it being shown that 1,000 tons at least were unprovided for. Several propositions were advanced, among others the manufacture of grape syrup, samples of which, pronounced superior in quality to the best cane golden syrup, were exhibited by Mr. Bruce and Mr. J. C. Weinberger; both these gentlemen being determined to enter into the manufacture of this article at once and to a considerable extent.

It was shown that the balance of the crop must be worked up into brandy, especially the Mission grapes, which at best make but an inferior quality of wine, and here may be found the key of the resolutions introduced by our President, Charles Krug.

Mr. Crabb exhibited samples of wine of the Orleans grape, from the Orleans Hills vinicultural association, which were pronounced by connoisseurs of best quality and equal to the best Riessling ever made in this country.

STOCK BREEDERS.

The Jersey Cross.

A correspondent asks us whether it is necessary for a dairyman to go into thoroughbreeding of Jerseys to obtain advantages of that breed in his dairy, or whether grades will give him, practically, what he needs. We have had some experience in crossing the pure-bred Jersey bull upon grade Ayrshires and common cows. We have not yet tested the milking qualities of these grade Jerseys, but the heifers appear very fine, are of good size, excellent digestion and as hardy as common stock. We have a grade heifer—half Jersey, quarter Ayrshire and the rest common—that weighed 650 pounds at 11 months old. We have examined many Jersey grades and find that the cross-bred animals thrive well, and yield larger quantities of milk than pure bred Jerseys. Thomas Fitch, of New London, Conn., has had long experience with this cross, as well as with pure bred. His Jerseys were from the late John A Taintor's importation. He says most of the fancy points, which now govern in the selection of the breed, had no weight when he began breeding, and he evidently regards them as quite artificial and useless, so far as milk production is concerned. He says:

A good Jersey cow—thoroughbred, and well bred at that—one that gave 12 quarts of milk per day, on common food, and made 12 pounds o butter per week, sold then for about $100.

I have bred many thoroughbred Jerseys, and hundreds of grades; but comparatively few of my thoroughbreds have given more than 12 quarts of milk per day; though among them are some celebrated milkers, such as Palestine 3d, Maggie Mitchell, Fleetfoot, Flora, Buff and others, some of them having given as high as 22 quarts of milk and two pounds of butter per day, measured and weighed. I have crossed the Jersey bull with nearly all the known breeds of cows—Ayrshires, Natives, Short Horns, Dutch and Devons—and it is an excellent cross with any and all breeds for the dairy. I have never yet found a half-blood Jersey cow that did not yield a richer quality of milk than her dam. The Jersey bull transmits the rich quality of the milk to the grade he gets.

The thoroughbred Jersey cows, as a rule, have small teats and udders, small bodies, and tender, delicate constitutions; they are not so hardy nor so easily kept as Ayrshires, or natives; but the grades have good sized teats and capacious udders; are hardy, easily kept, and the quantity of milk is increased. The grade is, in fact, worth more money to the farmer than the pure Jersey, for actual production and all purposes except breeding thoroughbreds.

This testimony is from a breeder of much experience, and comes very near the true statement of the value of the Jersey cross. We recently gave some facts to show the value of Jersey milk for cheese making, proving it as superior for that purpose as for butter making. The fact is, the little Jersey has been bred so long for the special purpose of secreting milk, that she has become perfection as a cream producer. We believe the statement of Mr. Fitch, in reference to the value of the cross, to be correct. The prepotency of the Jersey blood must be very strong; and for all practical purposes the first cross produces a cow of great value to the dairyman, and costs scarcely more than the native, as the price of a thoroughbred Jersey bull calf, six months old, is only from $50 to $100; so his first ten calves, at $5 per head, would pay for him, at least for the extra investment. The cost of snch a bull would amount to nothing when divided among a large herd.—*E. W. Stewart in National Live Stock Journal.*

THE SWINE YARD.

Conditions of Success in Breeding Swine.

From an address written by Geo. W. Jones for the Iowa stock breeders' association we quote the following paragraphs:

The objects to be sought in breeding swine are:

1. Constitutional vigor.
2. Docility.
3. Beauty of form.
4. Rapid growth.
5. Early fattening.
6. Large proportion of valuable products.

The last three are specially important to the breeder, and the ultimate object always to be considered; but the first three are necessarily antecedent, and the immediate object of the breeder.

Of these three, though interdependent, the importance is in the order named: Constitutional vigor, docility and beauty; and yet, I am sorry to say, the order is frequently reversed by the breeder, and beanty of form and color put first, with constitutional vigor last thought of. This is wrong.

The means by which to attain these objects are:

1. The use of the right kind of parents.
2. The use of the right kind of external conditions surrounding the birth, growth and education of the pig.

We learn from the stndy of the wild hog what are the natural conditions and surroundings of the animal, and it seems important to supply the same conditions in a state of domestication as far as possible. The lessons learned from such an examination suggest the following requirements:

For food—A variety of vegetable and animal substances; nuts, roots, grasses, grains, meat, and whatever goes to make np a mixed diet.

For habitation—Shelter from sun, rain, and wind; but at the same time free access thereto, with free air, pure water, and clean mud.

For occupation—The gathering of their food, in part at least, by the exercise of their own wits and the strength of their own noses.

This enumeration of requirements at once points out the errors of those who confine their swine to one kind of food; to the errors of those who confine them too closely in small pens which lack either for shelter, air, sunlight, pure water or fresh earth, and to the errors of those who feed abundantly and from any sort of vessels, which precludes exertion on the part of the pigs themselves. Either of these errors produces disease, and disease degeneration.

Clean mnd is necessary, and I say "clean mud" to bring out more fully the common neglect which leaves swine to wallow in their own filth. It is most repugnant to the hog himself. Naturally he is very cleanly in his habits, even more so than any other of our domestic animals, and never voluntarily defiles his bed with his own excrements. But he must have mud, and if he can't get it in any other way will make it.

The writer kept Berkshire swine three years, and tried to carry out these views, and he is happy to say that he never lost a single pig by sickness, and among all his breeding sows he never had an unnatural mother. He had a large woods pasture, with abundant sheds and water, and kept his stock constantly, save only a week or two at farrowing, and even for that, some of the best and strongest litters were dropped in secluded places chosen by the sows themselves in the pasture. The stock was no less docile because running at large, and not unfrequently he has been quite surrounded by the sows, lying down around him, asking to be scratched, and grunting their satisfaction. Of course there was always the greatest kindness in their treatment. There was also abundant and varied diet furnished, so that they did not have to *work* for a living, and grow long-snouted and leggy by their labors, but well fed and happy, they took their daily constitutional exercise, and turned over many an acre of turf with their aristocratic noses, in their amusements, thus occupying their minds profitably and improving their health. They got pure air, exercise, fresh water, clean mud, a few toads, all the snakes, innumerable grubs and worms, rotten wood, grass, and fresh earth, with all the delicate tidbits it contains.

I wish to enter a protest against the constant and heavy feeding of corn in any form. It is too heating, particularly for summer, and I believe it produces many of the ills to which hog flesh is heir. It may be the principal food, but along with it should be fed shorts, oats, oil cake, milk, butcher's waste, a little salt, vegetables, weeds and almost everything which can he named will come in play. The little pigs need a trough by themselves, supplied often with the best, particularly milk.

As to the age at breeding, I say this: Use only mature animals of either sex, and save the pigs only from those which have been proved good.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. WEBSTER; Secretary, AMOS ADAMS.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Annual Meeting of the Grangers' Bank of California.

The annual meeting of the stockholders of the Grangers' Bank of California for the election of Directors for the ensuing year, and also to amend the by-laws if found necessary, will be held at the office of the Bank on Tuesday, the 10th day of October, 1876, one o'clock P. M.

C. J. CRESSEY, Vice President,
No. 42 California street.

San Francisco, Sept. 11th, 1876.

COPIES OF THE CONSTITUTION AND BY-LAWS of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

P. OF H.—Subscribers who pay fully one year ($4) in advance for the PACIFIC RURAL PRESS can receive the CALIFORNIA PATRON *free*, or other premiums. See our premium list in another column.

State Grange Meeting Next Tuesday.

The coming week will be one of the most important in the life of our noble Order in this State. At this meeting we hope and expect to witness a renewal of enthusiasm which will resound throughout the state. The Order has never been in better condition for harmonious and effective work in the State counsel than at present.

Let no Master, Past Master, or their wives who are Matrons, remain away for any ordinary reason. In case of absence or illness of the Master, let every Grange see that some one or more of its fourth degree members are present to receive the work and report back to their Grange in a semi-official manner, at least, the most important portions of the transactions. The nature of our association is such, that no printed reports can go out to the Subordinate Granges in a manner to do full justice to the meeting.

Further, we are warranted in urging all fourth degree members in good standing to come who can afford to. There are few who will ever regret the time and expense devoted to a visit to the State Grange. Doubtless, with the exception of one evening, all the meetings, (as heretofore) will be held in the fourth degree. All may add something to the interest and welfare of the Order.

Past Masters, and their wives who are Matrons, who have not received the fifth degree, can have it conferred upon them if present at this session. Past Masters will have the privileges of the floor for all purposes except voting.

Worthy Master Webster assures us that it will be his aim to make this meeting instructive and practicable to all Patrons present, in view of having the work become uniform throughout; consequently the Grange will likely be conducted much more formally than heretofore, *i. e*, less in the order of a convention and more in the form of a fraternal body. So bring your regalias and song books, with tuneful voices and hearts, for a five days' harvest feast.

The hall for meeting is on the first floor of the new building of the Red Men, No. 320 Post street, opposite Union square. Besides ante and committee rooms there is attached a parlor for the convenience of sisters attending.

The meeting will open at 10 o'clock A. M. Come early and prepared to stay until the work is done, and well done.

Those who have good specimens of farming produce, or other articles of interest for exhibition here and at the National Grange, should not be backward about bringing them forward. Articles for the Pomona feast should be plainly marked as such and forwarded in season to the Grangers' Business Association, No. 6 Davis street.

NEW GRANGE.—A Grange was established at the California Central Colony on Friday evening last. The following officers were elected, and duly installed by District Deputy W. J. Hutchison: Bernhard Marka, M.; Gustaf Eisen, O.; Richard White, L.; L. Seaberg, S.; Thomas O. Butler, A. S.; John Richie, C.; Wm. Miller, T.; Miss N. Booth, Sec'y; Jans Hansen, G. K.; Mrs. S. C. Booth, Ceres; Mrs. B. Marks, Pomona; Mrs. Wm. Miller, Flora; Mrs. Hannah Sewell, L. A. S.—*Fresno Expositor, Sept. 20th.*

WHEAT MEETING.—We desire to call attention again to the adjourned meeting of the wheat growers, to be held at Golden Gate Grange, on Monday, October 2d, 1876, at seven o'clock P. M. The advance in the cable price of wheat gives new vigor to the shipping project and there should be a full consul.

THE latest date upon which proxies can be filed with the Secretary for the meeting of the Grangers' Bank is on the first of October. Let all shareholders remember that it is important that their stock be represented in person or by proxy, as important business will doubtless come before the annual meeting, October 10th.

The Chance on a Farm.

EDITORS PRESS:—Need our talents be buried if we go on to a farm? There is retirement, quietude, there is an opportunity of fixing up a neat home. The rude cottage can be adorned with many little things which woman can contrive in her fertile brain, her taste select, her fingers arrange. Then there is no end to the out-door work; no end to planning, devising ways and means. For social improvement are the family circle, neighbors, books, papers. Then the Grange, in which man and woman are alike interested, each contributing his or her share. There is chance to display ability as a financier, economist, orator, statesman.

What more honorable or surer way for a man to win the esteem of his fellows than working in and through the Grange? Who are in the majority, the staff of our commonwealth? Our farmers. What is the occupation without which all others would languish? Agriculture.

The farmer is in good company: Washington, Greeley, Allen and hosts of other distinguished men delighted in farming. It is the safest, most independent occupation; there is and ever will be a constant demand for food. A farmer who has a home is sure, with industry and good management, to secure a competency. If there should be an occasional failure of crops, he can lay by when there is an abundance. Besides, he should have a variety; then if one kind fails he will have another. The farmer can sleep and his fields will be producing for him. He need not overtask himself with work, for he can regulate the number of acres which he will cultivate.

A farmer should study his business. He must read the agricultural papers, must have something to contribute for the benefit of others. He must keep himself well posted and good natured; he needs a sound mind in a sound body. If a farmer does his duty, improves his farm, stock, etc., discharges his duties to his family, wields that influence through the press, Grange, home circle, society, which is his prerogative, need—can his talents be buried?

Nor are these all. A true farmer must be a true man. He will be seeking and finding means to improve himself in every way. He will find that all he is or can be will be required to enable him to be a complete farmer.

G. W. WORTHEN.

Declarations by Ceres Grange.

EDITORS PRESS:—Ceres Grange, No. 64, of Westport, Stanislaus county, has adopted the following suggestions for the good of the Order. It was moved by J. M. Henderson that the Master appoint a committee of three to report at the next regular meeting. In discharge of that duty the undersigned committee reported the following for the consideration of the Order:

First—That every brother and sister should feel deeply impressed with the idea that there is work for each and every one to perform; to be ever present at the hour of meeting, giving encouragement, at least by their presence, and not to throw the whole labor on a few, while hoping to reap future rewards and profits, without bearing their proportion of the burdens of the day.

Second—With the knowledge that all other trades are combined for self-protection, that the time has come for farmers to be united and work as one man, if they ever hope to compete with the powers behind the throne. Traders and exporters ought to be the natural allies of farmers, but from the small profits we receive after the total expenses are paid, we are forced to call them fleecers instead of friends.

Third—In view of the vast fields of fertile soil opening up—adapted to grain raising—in many parts of the world, and considering the cheap labor (where the sustenance of the laborer would only require a quart of rice or a chunk of tallow per day) and contemplating the vast exports to be moved from this State and Oregon, it becomes the farmers of Stanislaus, the banner wheat county, to come to the front and prove, not only by words but by action, that they will give every aid to any enterprise that will secure to them their cherished principles—"live and let live"—and will insist upon a fair reward for their labor and produce. To this end we most earnestly recommend that every aid be given to our wheat conventions and associations to encourage them in independent shipments, which tends to break down monopolies, all of which can be done subject to the farmers' own control, to say nothing of the help which can be secured by advances made for 60 or 90 days without interest, and the saving of profits on exchange. See to this, brother farmers of the Pacific coast. Let there be no drawback among you, and you will place another gem in your crown. But there is yet more work for you to do. Remember that God was six days in making the world, and if you do not accomplish all that you desire in one day, rise up the next morning with the determination to go on to perfection.

Fourth—We are willing to admit that the most memorable star was the one that guided the shepherds to the Babe of Bethlehem. But if farmers are true to their interest, there will be another star appear in the nineteenth century that astronomers have not told us of, and when its light will be spread abroad it will stand for the everlasting interest of the producers of the Pacific coast. Its name will be the Panama Star canal. It will lessen the distance by sail to Europe one-half. It will save to our farmers one-half the tonnage on their shipments. That artful enterprise will save to the farmers of this coast, annually, millions of dollars, to say nothing of other interest. Therefore be it

Resolved, That the Ceres Grange resolve themselves into a committee of the whole, with other Granges, and raise one long, united and loud voice, and never to cease till this grand enterprise and necessity is accomplished.

Resolved, That a united effort on the part of our Senators and Representatives in Congress be made to the General Government to consider this necessity at the earliest day. In view of the benefit to the world at large as well as to our own citizens, it be urged, that the Government open up the canal, lay its mudsills, erect its gates, and forever protect it in the interest of American citizens.

Resolved, That Ceres Grange send greeting to our brothers of Antelope Grange, Yolo county, concerning the Panama canal.

Resolved, That our Worthy Master, W. H. Browse, bring these important facts to the consideration of the State Grange with all his mind, strength, soul and body.

Adopted by a unanimous voice of the Grange and ordered published in the PACIFIC RURAL PRESS and *California Patron*.

MRS. HANSCUM.
W. G. MANGORD.
J. M. HENDERSON.

The Grange as an Organization.

Many members of the Order have become discouraged because of the slim attendance at the regular meetings of the Grange. Although desirable that the attendance should always be good, nevertheless it is not necessarily an evidence of weakness for only a few members to be present. In almost any organization which can be named, including that of Odd Fellowship and Masonry, there is not, on an average attendance at the regular meetings, more than one fourth of the members thereof in good standing. Many worthy members do not see the inside of the lodge room on an average once in six months, yet such members would take it as an insult if told they were not good Masons, or Odd Fellows, because they did not attend the meetings more regularly. Their good standing is determined by their moral deportment and the prompt payment of their lodge dues. Whenever anything of importance demands their attendance an order from the Master brings them all together. Thus it should be with the Granges. The Master should have sufficient authority to compel the attendance of the members whenever urgent necessity demanded it. If the Master of each Grange had this authority and could enforce it, so long as the members deported themselves properly and paid their dues promptly the Order would have an enduring strength which nothing could shake. As an evidence of what can be done by keeping our organization intact, the wheat growers' late dilemma and remedy affords a fair example. The organization enabled them to meet together and exchange views on the subject, which resulted in the appointment of delegates to the convention which met in San Francisco on the 25th of July last. There was a large number of the representative grain growers of the State present. After mature deliberation the wheat growers resolved to have a fair price for their product or ship it direct to foreign ports. A cargo was subscribed on the spot. A ship has been chartered and loaded under the supervision of the Grangers' Business Association. An adjourned meeting of the same body was held on the 22d of August, at which another cargo was subscribed, which in due time will be ready to leave port. It appears to be the determination of the wheat growers to continue these shipments. The shipment of the cargoes already engaged, to say nothing of any subsequent action, is worth more to the farmers of the State than all the Grange has cost us since its organization, for this action of the wheat growers has done much to break down and demoralize the wheat combination formed in San Francisco last spring. It has had a tendency to strengthen the market here—in fact prevented it from being broken down entirely—and in the aggregate will save to the farmers of this State hundreds of thousands of dollars and teach the speculators that there is power behind the throne which is likely to develop more strength than the throne itself.

We certainly have reason to congratulate ourselves upon our successes, and the hope for the future of our Order is bright indeed—if each will stand firm at the post of duty. It will cost a few bits during each year to keep our membership good, but what of that? When we reflect upon the strength and security our organization gives us, the cost of maintaining it sinks into insignificance. With it we have strength enough to stand against all combinations which may be formed against us. Without it we will be like the shuttlecock, driven from point to point by every player who wishes sport or profit at our expense.—*California Patron.*

Grange Progress.

All great reforms are of slow growth. People are slow to admit the necessity of reform, and slower still in devising a remedy, and when they set about applying what they deem reform measures, time is necessary to develop the full idea, and to fit it to the exigencies of the occasion. Now, the necessity for some such order as the Patrons of Husbandry has been recognized and felt for ages, and many have been the crude but earnest efforts of agriculturists to fashion out of the necessity and the material in hand, something like the great farmers' combination which is popularly called the Grange of to-day.

When once it did take form, the farmers of the land rallied *en masse* under its banners. The enthusiasm of the American character carried them ahead too fast. Their expectations as to direct and immediate results were too sanguine, and much exertion was wasted in unreasonable efforts to accomplish business impossibilities. The over-sanguine, the purely selfish and the unreasonable people who at first filled its ranks and crowded to its council boards, have dropped, or are rapidly dropping to the rear, and their places are being filled by cooler, more reasonable, and consequently better men, and the Order has started anew on that surer plan and firmer basis which is always deduced from experience, and that too, of all others best calculated to insure final success.

The Grange to-day is making but little noise in the world, but all who are close observers of its workings see that it is doing a better and healthier work now than it did in the early days of its history. It is slowly but surely educating the farmer to the point of co-operating in those ways and by the only means by which that principle can do them, in its application, any real good. The over sanguine—and perhaps this class contained the only element in the Order which would seek to obtain its ends by doubtful, or indeed, unworthy means—are learning that the great farmers' Order must not displace or supersede any other legitimate object or honest purpose of society.

The Order is learning that its own true welfare and hope in the future is best secured and served by building up all other interests, by making all men purer and better, and by co-operating with any and every other influence which is calculated to lift the burden of misery, thriftlessness and despair from the shoulders of "all who labor and are heavily laden."

The farmers as a class are not selfish. Their daily intercourse with nature, their daily sacrifices, and, indeed, their pursuit, is all against the development of the quality of selfishness, and thus, when they originate a protective society like the Grange, it reaches out to and embraces all who are within reach of its beneficent scope. Indeed, the Order is progressing in this way, and its devoted men and benevolent women are reaping a two-fold reward, money and satisfaction in its better successes.—*Examiner and Patron.*

In Memoriam.

NATIONAL RANCH GRANGE, No. 235, San Diego Co., Cal., Sept. 20th, 1876.

WHEREAS, Death has for the first time invaded our fraternal household, and one of our esteemed and honored members, Brother C. W. DIMOND, formerly Worthy Steward of this Grange, has answered the relentless summons, and his place in our midst is vacant; and because we meet him no more in the familiar paths wherein he used to walk, we mourn for him. We miss his pleasant voice and quiet ways continually, and believing it but justice to his memory that some expression of regret at his loss should be made a part of the proceedings of this Grange; therefore,

Resolved, That we do hereby express our heartfelt sorrow at the loss of our beloved brother, and we desire to extend to the relatives and friends our sympathy, and such kindly offerings of consolation as we are able to express in words, coupled with the hope that they, with ourselves, may be able to realize after the first great grief has passed, that the worn and weary spirit has at last found the release and rest for which it longed.

Resolved, That this preamble and resolutions be embodied in the Worthy Secretary's report of this meeting, a copy sent to the parents of the deceased, and to the RURAL PRESS for publication.—[Committee: E. T. Blackmer, Mrs. J. A. Walker, Thomas Walker.

HAMILTON GRANGE, Biggs, Butte Co., Sept. 16th, 1876.

WHEREAS, on the eighth day of September, A. D. 1876, our Grange circle has again been broken by our Divine Master's translation of our cherished sister, MRS. AMY ELLEN HURLBURT, to the better land; therefore, be it

Resolved, That, by the departure of Sister Hurlburt, Hamilton Grange has lost a good and worthy member, and her husband a faithful wife and mother. That we truly sympathize with the afflicted husband, her father (our Worthy Secretary), and their entire family.

Resolved, That these resolutions be sent to the RURAL PRESS for publication, and a copy sent to the bereaved family of the deceased.—[Committee: W. W. Stone, M. A. Randall, H. L. Lasell.

POMO GRANGE, No. 216, Pomo, Cal., Sept. 2d.

WHEREAS, In view of the loss we have sustained by the decease of our friend and brother, WM. E. PATTON, a member of Pomo Grange, No. 216, who died August 4th, 1876, in the 39th year of his age, and of the still heavier loss sustained by those who were nearest and dearest to him; therefore be it

Resolved, That it is but a just tribute to the memory of the departed to say that in regretting his removal from our midst we mourn for one who was in every way worthy of our respect and regard.

Resolved, That this heartfelt testimonial of our sympathy be forwarded to the family of the deceased and to the RURAL PRESS for publication.—[Offered by L. T. Yonnt; E. V. Jones, Secretary.

Agricultural Notes.

California.

BUTTE.

Italian Chestnuts.—*Mercury*, September 22: On Monday morning Charles H. Legget, who lives some two miles below town, brought into this office a lot of Italian chestnuts that grew in his garden the past season. He has seven trees in bearing that grew from seeds planted six years ago. The chestnuts are large, plump and of as rich flavor as any that we ever saw. He intends to plant his whole crop this year, believing that he can get more profitable returns from land cultivated in this manner than in any other way. The trees are thrifty and bid fair to do as well as any of the other trees on the ranch. It was supposed that we were too far north to raise such trees, but Mr. Legget has demonstrated the fact that they will grow and bear good crops here. We also saw a lot from the garden of Charles H. Wilcox, grown on trees five years old, that looked plump and full as those from Mr. Legget's garden.

Grapes. — And now comes C. H. Legget with a seven pound bunch of White Tokay grapes that were raised on his vines, two miles below town.

COLUSA.

Cotton.—*Sun*, Sept. 23: Rutland, Jackson and Reed engaged some Chinamen to gather their cotton crop by the pound, but owing to some misunderstanding about the matter, the contract was off, and Mr. Rutland went below and has hired a crew of Chinamen by the month. These will commence to gather by Mondsy. They had intended, if the first Chinamen had not thrown off on them, to have had a bale of cotton at the State fair. There is a large quantity now ripe and ready for gathering. Their gin is all ready for operation.

EL DORADO.

Fruit Drier.—Garss Valley *Union*: A fruit drier of Walter's patent will be in operation here by the middle of next week. The Nevada County business association have leased the building on the northwest corner of Main and Church streets, and will enter at once into the business of buying, shipping and drying fruit. By this method the producer may sell his whole crop, but nothing but the choicest is sent away —the rest being dried—and thus a reputation will be established for our fruit which could not be done in any other way.

KERN.

Shearing.—*Californian*, Sept. 21: Many of our sheep men are shearing old as well as young sheep. The better price of wool is a strong inducement. The county has suffered more in a moneyed way through the slow sale and low price of the spring clip than from any other cause since its organization.

Irrigation Explorations.—One of the most important considerations connected with our irrigation system is the saving of the waters of the river which are yearly lost in the lakes. A recent examination of the Hot Springs valley shows that the other side of the mountains a large body of the waters may be preserved. Several schemes for providing reservoirs in the valley adjacent to Kern island have been projected, and the practicability is well understood, but the necessity for securing every available space suited to the purpose is shown by the immense volume of water which for months moves undisturbed to the lakes. The Hot Springs valley begins on the north at the junction of the North and South forks of the Kern river. The decline from that point to where the river loses itself in the mountains again is about sixteen inches to the mile, for a distance of three miles. The width of the valley to be used as a basin would be something more than a mile. It would form one of the most perfect of natural basins, from the fact that between the river and the valley, for its entire length, to where Erskine creek empties into it, is a narrow ridge of hills forming a complete levee, and without obstructing the natural channel, the waters of the basin could be securely held. If any additional room were wanted, the valley of the South fork, adjacent on the north, would be available. A large area of the ground at its mouth is worthless for tillage, and could well be utilized for this purpose. Jointly they would furnish an immense summer supply, and in connection with the reservoir already projected on the north side of the river near Bakersfield, would render every foot of land now entirely unprovided with water, lying on the plains north of the town, as fertile as the best of the island. With the incoming immigration immediate attention will be needed to this enterprise. Its inauguration will do much to hasten settlement. The demand for water for irrigation increases yearly beyond all expectation, as the dry lands are from time to time abandoned on account of the uncertainty of the crops. Doubtless before another year is gone the work will begin, and it will soon be demonstrated that the supply of the great river is practicably inexhaustible.

LAKE.

Large Growth.—*Bee*, Sept. 21: We have received from Mr. Wm. Ballinger, of Bachelor valley, a bunch of 100 barley stalks, which have grown from a single seed. The stalks are all matted in a bunch, and clearly show that but one seed was necessary to produce it. The stalks all have fine large heads of grain on them, and the heads are well filled.

NAPA.

The Grape Syrup Project.—St. Helena *Star*, September 22: Mr. J. J. Bruce, of the grape syrup manufacture so often noted in these columns, informs us that the enterprise looks promising, and he is about going into the manufacture on a large scale. He is putting up furnaces in a small house on Sulphur Spring creek, near Heyman's place, and at the date of this writing (Tuesday) expects to have evaporators in during the week, ready to go to work by the 25th—everything all complete, as early a period as it is thought profitable to commence working the grapes. The apparatus provided for will work through from six to 10 tons of grapes, making about 200 to 300 gallons of syrup a day. This amount he has no doubt of finding a ready market for, and even much more if he had it. His plan of operations will be buying the grapes (Mission) at market price. He expects to be able to run at least 50 days this year, which at the minimum rate of consumption will dispose of 300 tons of our Mission grapes, quite a relief to the wine cellars.

Grape Mixing.—Instances of grapes mixing are multiplying. We spoke lately of a sample from Lodi ranch. Mr. Edwards since shows us a bunch of black grapes, grown on a sucker on a Grey Riessling (or Dischia) vine, about the size of its parent grape, but entirely differing in color and taste.

A Precocious Tree.—Mr. W. F. Woodworth, of Howell mountain, hands us samples of peaches produced by a tree of his, in the first year of its bearing, 10x10¼ inches in circumference. We judge that Mr. W. must have some good land up there, by the fruits thereof.

SACRAMENTO.

Folsom Fruit Drying House.—Through the courtesy of Messrs. Fuller, Finch & Halen, we were shown through the fruit drying house recently built in this place by H. P. Livermore. This house is four stories high, 70 feet long and 25 feet wide. The front portion of this building is occupied by two Alden fruit driers, while at the rear extremity is a Reynolds drier, capable of drying six tons per day, the combined result of these driers being 18 tons per day. Mr. Livermore will soon add another drier which will be capable of preserving a much larger amount of fruit than those already in use. Grapes now being in season, they will receive especial attention, and the White Muscat and Muscatel being the best for raisins, they will be exclusively used. Under the efficient management of Mr. Finch, all imperfect grapes are picked from the clusters, these clusters are then placed within a wire sieve which is immersed in a chemical fluid brought to almost boiling heat, which has the effect to make them tender and renders evaporation rapid and successful. From samples of raisins shown us by Mr. Finch dried by this process we are prepared to say they will compare favorably with the very best varieties of imported raisins. Mr. Livermore is now in Napa valley contracting for grapes, and contemplates drying yet this season 700 tons.

SAN BERNARDINO.

Fire.—*Argus*, Sept. 16: 34,000 pounds of grain, a large granary and a two-story stable, belonging to Mr. M. Byrne, were consumed by fire on yesterday morning. It is supposed to have taken fire through the carelessness of some Indians who were loafing around the stable. The fire broke out in the hay mow overhead.

SANTA BARBARA.

Deer Diving for Potatoes.—*Telegraph*, Sept. 16: A new blight to the potato crop has been discovered in this valley. The other day as a gentleman was hunting on the ranch of John Jones, Oso Flaco, he discovered a herd of eight deer busily engaged in rooting into the ground like a drove of hogs. They fled on his approach, and he found that they had been digging up about an acre of potato plants, and greedily devouring the tubers. Quite a panic among the potato growers of the Oso Flaco has been created by this alarming fondness of deer for "spuds."

SANTA CRUZ.

Hops.—*Courier*, Sept. 22: We have two hop gardens in this county now, one belonging to Mr. Averon, near Soquel, and the other belonging to Owen Tuttle, near Watsonville. The land best adapted to their growth is that of a sandy or sediment nature, and the climate of this county is said to be very favorable to it. Mr. Tuttle's gardens are located about one mile north of Watsonville, where he has 14 acres of vines under cultivation. He expects to realize from this tract at least ten tons of first-class hops. Last year he got from the same land 11¾ tons; and the year before that 12 tons. The reason of the falling off in his crops this year is that a portion of his garden was overflowed last winter, and the land worked while it was still wet. This gentleman has a kiln 20 by 30 feet, situated in the second story of the building, underneath which the furnaces are set to dry the green material. The bottom of the kiln is covered with porous cloth, supported by strong rafters placed about two inches apart. The hops are laid on this cloth in a layer a foot deep, and are occasionally stirred in order to give them an even roasting. About 500 pounds are cured at a time, each baking occupying 12 hours. When the furnaces are once fired up, the heat is not allowed to die out until the whole crop is safely cured. When the kiln is first filled, the heat is about 120 degrees Fahrenheit, and is allowed to range up as high as 150 degrees when about half through the process. It then gradually cools down to 120 again as the lot is about cured. There is great danger attending this business from fire. The heat of the furnaces renders the whole building as dry as tinder, and the blaze of a match would set it in flames. On this account, sentinels are set to watch it night and day, and Mr. Tuttle has built a water tank in close proximity to protect it. Chinamen are used to pick the hops, 40 of whom are required. It will take this number about 20 days in all to gather the harvest. Four vines grow to a hill, and some hills produce as high as four pounds each.

SAN JOAQUIN.

About the Tule Lands.—Stockton *Independent*, Sept. 21: A number of prominent capitalists and others left this city on Friday last by Mr. Whitney's steamer, *Clara Crow*, for a trip among the tule lands. All are largely interested in the reclamation and cultivation of these tracts, one of them being General T. H. Williams, who has lately made most extensive purchases of tule lands, having obtained possession of over 50,000 acres in this and adjoining counties. He has now commenced the reclamation of Union island, in this county, lying adjacent to Roberts' island, which comprises some 40,000 acres of the choicest kind of soil, simply requiring to be secured from a few feet of overflow to make it one of the most productive tracts in the world. Over 1,000 men are already at work at Union Island, building embankments in preparation for the pumping machine which we described in a recent issue, and this force is to be largely augmented without delay. We have heretofore spoken with a good deal of interest of the reclamation of Roberts' island, which was begun last year and has been recently resumed after an enforced idleness on account of high water. Another considerable force has been added by Mr. Whitney to the works on the upper end of the island, and this tract, comprising some 20,000 acres, will be open to cultivation this winter. The ordinary observer can hardly appreciate the advantages to be received by San Joaquin county in the reclamation within its borders of fully 100,000 acres of now useless swamp, comprised in Roberts' and Union islands.

SOLANO.

Benicia Flour Mill.—Vallejo *Chronicle*, Sept. 22: There is a pretty well authenticated report that the Benicia flour mill has been purchased by some Canadian millers, who will put it in running order, extend the wharf to a distance from the shore at which 30 feet of water can be reached and probably increase the capacity of the mill. It is a long time since this mill was running, and many reports of transfers to different parties have been in circulation at various times; but in the present case there is perhaps more truth in the report than in former ones.

SONOMA.

Russian River Hop Growing.—*Flag*, Sept. 21: Many California hops were sold last year for ten cents per pound; but this year, as early as it is, we understand that 15 cents has been refused in this valley, and that it will take at least double last year's prices to purchase this year's crop. The ground required for hop raising is the best of river bottom, and as hops are much more exhausting than grain, frequent enriching with manure, ashes and lime is required. Irrigation was tried at the San Jose vineyard of the I. O. G. T. savings bank, without beneficial results. From one of our prominent hop growers we learn the mode of cultivation is as follows: The ground is first prepared in the most thorough manner; slips, with at least four eyes, are then set out, and as soon as the sprouts appear, stakes nine feet long are driven, on which to entwine them; as all the stakes are connected by lines tied at their tops, there are four directions for the vines from each hill to go after they arrive at the top of the stake, consequently there ought to be just four vines from each hill, and they require constant supervision and care to keep them all turning in the right direction. The reason poles only nine feet long are used in this valley is that if they were longer the north winds would beat the climbing vines against them and inflict the greatest injury. Even in the case of the short poles, the north wind frequently prevents the vines from turning completely around the pole, thus requiring the assistance of human hands while the winds last. It is thought by some that more hops can be obtained where long poles are used. The second year the vines are cleared from the yard, being all cut away but a stalk in each hill three inches long and containing four eyes. Then comes the cultivation of the ground. First, a furrow is turned away from both sides of the hills; then the hills are manured and hoed; then the yard is plowed thoroughly three times, cultivated once and harrowed three times. After this the clods are all smashed, so that the ground will remain moist to the very surface.

Cider Mill.—Petaluma *Argus*, Sept. 22: L. Hill & Bro. have established an old-fashioned cider mill at Goodwin's crossing, a few miles from this city. These brothers have recently come from the East and are experienced men in the business. They pay for apples at the orchards 35 cents per 100 pounds, or 40 cents delivered at the mill. They have a manufacturing capacity of 1,000 gallons per day.

Sale of Grapes.—Sonoma *Democrat*, Sept. 23: Nelson Carr, of Bennett valley, has sold his grapes to Kohler & Frohling for $12 per ton. We are informed that Wm. McPherson Hill sold 50 tons to the same parties for a like price.

Home Supply.—It is estimated that as much as $10,000 was paid out by fruit dealers for strawberries imported this spring into Santa Rosa. All this money should be kept at home. L. F. Chinn is going for a portion of the strawberry money next spring. He will put in five acres of vines at the junction of Santa Rosa and Alamos creeks, adjoining the Hudson tract. We wish him success, and believe he can make his five acres more productive from strawberries than from any other crop.

An Important Lease.—J. W. Kelley has leased the tract of 600 acres of land belonging to the Joaquin Carrillo estate for five years. The land lies on the east side of the laguna adjoining the town of Sebastopol. It is all good land. The price paid is $2 per acre per annum. Mr. Kelley will build a dwelling, barn and dairy, which the owners are to take at the termination of the lease. Mr. Kelley will keep 80 cows and will make cheese and butter. It a source of congratulation that this fine tract, which has so long lain idle, will now be made productive.

The Potato Crop.—*Argus*, Sept. 22: An immense area—far exceeding that of any previous year—was planted with potatoes in Sonoma and Marin counties this season. This was due to several causes, which it is not necessary to recount here. The first indications after planting were favorable to a large, or at least a full average yield, but unfavorable weather ensued —hot and dry, and not the usual fogs. In most fields there were a good many hills wherein the tubers did not sprout and vines appear. The unfavorable conditions have continued most of the time up to this date, and it is now the judgment of most potato growers in this vicinity that the crop will be much lighter than last year. Added to the unpropitious circumstances above mentioned is the fact that the "blight" has appeared in several places, and is doing considerable damage, particularly in the Stony Point region and thence toward Bloomfield.

STANISLAUS.

Irrigation.—Modesto *Herald*, Sept. 16: The West Side surveying party are now in the field, prosecuting the work vigorously. The commissioners have returned from Tulare lake, reaching Grayson on Wednesday, 13th, having been absent with the surveying party just one week. In conversation with two of them the following facts were elicited: The engineers have ascertained that the taking of water from the lake is feasible. The plan is to dredge into the lake about one mile, until the channel of one of the mouths of Kings' river is reached. After leaving the lake, the first 12 or 15 miles will be the most costly, requiring a cut to the depth of 12 feet. The surveying party embraces about 30 men. A small portion of the party go ahead, making a preliminary survey; the remainder follow, making a permanent one. It will require two months to complete the survey to Antioch. A boat is to be constructed for the purpose of making a thorough sounding of the lake, as nothing, comparatively speaking, is known of its depth. Some soundings have been made a few miles from shore, and 18 feet of water found. The lake is 30 miles wide, and contains an immense volume of water. The members of the commission are now the most enthusiastic. One of them remarked the other day that "the Almighty placed the lake there for the very purpose." The canal commissioners are earnest, working men, and will do all in their power to further the interests of the great work they have on hand.

SUTTER.

Transportation. — *Banner*, Sept. 21: It seems evident that we are short of transportation. The immense quantities of grain stored in Yuba City and Marysville could not be moved with any expedition should a market be open, and on a visit down the river last week we were utterly surprised at the immense amount lying uncovered along the banks between this place and Nicolaus. If heavy rains should come there would be great loss to some one.

TULARE.

Castor Beans.—*Delta*, Sept. 22: The proprietors of the San Francisco lead and oil works, having noticed our item concerning the castor bean crop of Mr. Kanawyer, on Mussel slough, and the statement that they were only paying two and a half cents per pound for them, have written us to say that they do pay what they promised for number one castor beans. They also say that they are paying the same price for thoroughly clean, first quality flaxseed, delivered at their works in the city.

YOLO.

Changes and Work.—Cor. Yolo *Democrat*, Sept. 21: Many changes have taken place in our county during the last year; some of our neighbors have sold out their ranches—Mr. Nason, George Wherry and J. B Pockman—all of whom sold for good prices. Land is looking up. Wheat is not so high as farmers expected it would be, although there is an upward tendency. Farmers are becoming more economical. Brother farmers, take a little more care of everything you have got; prepare your land a little better and try to keep out of debt, and then prosperity will be on the side of the farmer. There is considerable wheat in store along the railroad awaiting a higher price. Charles F. Reed is plowing on his tule farm, running several plows. Charley is buying and shipping considerable grain this season; he is one of those rustling, stirring men who can't keep still; is ever experimenting on something in the way of farming, stock raising, etc. Success to all who are diligent in business is my prayer.



"Cuddle Doon."

[The social affections of the Scottish people are very strong, and when these are expressed in the broad dialect in which the genins of Burns delighted to disport itself, there seems to be an added tenderness and pathos to the utterances of the heart. The following lines by Aleck Anderson will be understood by every mother.]

"The bairnies cuddle doon at nicht,
Wi' muckle faucht an' din:
'O try and sleep, ye waukrife rogues,
Your faither's comin' in.'
They never heed a word I speak;
I try to gie a froon,
But aye I hap them up, an' cry
'Oh, bairnies, cuddle doon.'

"Wee Jamie wi' the curly heid—
He aye sleeps next the wa',
Bangs up an' cries 'I want a piece'—
The rascal starts them a'.
I rin an' fetch them pieces, drinks,
They stop awee the soun',
Then draw the blankets up an' cry
'Noo, weanies, cuddle doon.'

"But ere five minutes gang, wee Rab
Cries out, frae 'neath the claes,
'Mither, mak' Tam gie ower at once,
He's kittlin' wi' his taes.'
The mischief's in that Tam for tricks,
He'd bother half the toon;
But aye I hap them up, an' cry
'Oh, bairnies, cuddle doon.'

"At length they hear their faither's fit,
An', as he steeks the door,
They turn their faces to the wa',
While Tam preteuds to snore.
'Hae a' the weens been gude?' he asks,
As he pits aff his shoon.
'The bairnies, John, are in their beds,
An' laug since cuddled doon.'

"An' just afore the hed oorsels,
We look at oor wee lambs;
Tam has his airm roun' wee Rab's neck,
An' Rab his airm roun' Tam's.
I lift wee Jamie up the bed,
An' as I straik each croun,
I whisper, till my heart fills up,
'Oh, bairnies, cuddle doon.'

"The bairnies cuddle doon at nicht
Wi' mirth that's dear ta me;
But sune the big warl's cark an' care
Will quaten doon their glee.
Yet, come what will to ilka ane,
May he who sits aboon
Aye whisper, though their pows be bauld,
'Oh, bairnies, cuddle doon.'"

Centennial Chat—No. 8.

[Written for the PRESS by MARY MOUNTAIN.]

The big Webster plow noticed last week was not the only notable big thing in the New Hampshire department, for there were those two enormous stuffed hogs raised by Hon. L. P Cooper, of Croydou, and the largest weighed 1,307 ponnds, laid on at the rate of 120 pounds per month for 8 months. Some very fine ears of corn, 12-rowed, 11 inches long, grewn from some seed over 100 years upon the same ground. "Here is rotation for you!" said the astonished farmer. New Hampshiro also appears well among the educational exhibits; shows very pretty work from children three to six years old taught in the kindergarten of Nashua, and a fine model of the grammar school at Manchester.

New Jersey has culled generously from her cabinets and sends good work from her students: models, maps drawn from memory, kindergarten works, designs in architecture, portraits of distingushed benefactors of the different schools, collections of insects and glasses, birds stuffed and mounted, beantiful wax-work and a long line of evidence that New Jersey has skillful yonng fingers.

In educational department of Illinois there are the most comical

Caricatures of California.

"The Rough & Ready '49er, "Our Camp" and "A California Ranch House," with stovepipe braced to windward, pigs at the door free and easy with the children, axe in the log, and the forlorn mule of the artist in the background.

Several other States are worthily conspicuons in this educational gallery, but Vermont and California I could not find.

A little beyond the brilliant department of France we fonnd a modest cabinet filled with health reform books, and another devoted to the publications, pictures and prophecies pertaining to the faith of Second Adventists. A little further on we found

Robert Raikes at a Discount;

For has he not always been famous as the founder of Snnday schools? Yet here were actual Sunday sobool tickets printed in America, 1747, nearly 40 years before the first Raikes school, and two samples are given out of 385 different tickets printed in German by Christopher Sower, Sr., who also established the first type foundry in America. Here is an ancient book with black-rimmed pages in mourning for George Washington, and sample hooks dating all the way along from 1738, the year in which the oldest publishing house was establisbed by the same Christopher Sower. We pass on to the venerable fossil stump, the petrified moss from South Park, Colorado, the geographic models showing mountain hights in the most satisfactory way; and if we declare that this pyramid of vitriol is beautiful we shall also cast a half glance of admiration upon this other pyramid of choicest grease, snrmounted by the great original fount of fat—the symbolic hog of Cincinnati—which in turn is "all trimmed round" with portraits of dimpled, delicious little pigs. Now let no hearty hater of the hog put me down as as a totally depraved fat pork fanatic. The adjectives that cluster around that pyramid of grease, and even twice as many more, cannot begin to convey an idea of the beautiful arrangement of this "pork fat exhibit." For the artistic sense nothing more is needed; but as opening an easy trail from the ideal to the real, I would suggest a garland ot twisted doughnuts snrrounding a brown-bellied fried turnover and a few graceful links of old-fashioned sausage. The musical clocks are full of beauty and sweetness, with cuokoos and polite little men ready to step ont promptly and tell us all about it.

The French and German Clocks

Are wonderful, and if there is one sort of beanty more exqnisite than another in the perfection of clock-work, they are sure to win the medal. Just as I bad settled in my own mind that Connecticut is fairly beaten at her own game, a true-blue native freed his mind by saying that he "wouldn't give a red cent for all their cuckoos, figgers and dance tunes, because when you come right down to reglar, go ahead time-keepers, the Yankee clock can beat the world." So I went back to take another good look at the Yankee clocks, and can only decido that the committee on clocks are entitled to my respectful sympathy.

There are many curions devices for attracting attention to articles that would otherwise be overlooked. A huge hand will be covered with screws, tacks and enrious little tools. A conical bee-hive bristles with combs, pocket-knives, scissors, etc. An elegant harp is strung with finest entlery and surgical instruments. A life-size deer, carved from wood, is stnck full of nails and spikes, and not far from tbat, I think in Norway, there is a pretty showing of stationery, and some of the more snbstantial samples are labeled:

Tryck Papper for Lawyers.

Now what shall be said for the admirable simplicity of a people who speak right out plain like that? Probably their "triek paper for lawyers" is no more significant of meaning than our own foolscap.

From Norway let us step over to the Cape of Good Hope, and if I conld tell you all that is to be seen on the way it would take me—well, a month of steady writing would hardly do it; perbaps it wonld take six months.

A friend has been telling me that I ought to write a book full of Centennial gossip and traveler's experience. Yes; one could fairly begin in a book, and how it would swell and swell; for the mere catalogue of exhibits is quite a big book, and what quantities of comment, query, experience and observation might be added;—but here we are among the

Diamonds of South Africa.

The yonng ladies hover here like hnmming birds over the morning glories, and one cries ont 'O, bumbug! they can't be truly diamonds, for they don't shine a bit." "Why, Jenny, don't you know, they're jnst *raw* diamonds." "O, Nell, that's too good, yon mean *rough* diamonds; don't you know 'Mixar,' the diamond in the rough," and the gay girls move on in chatty admiration of the ostrich feathers and eggs, the comical little ostrich big as a hen, but "he left this vale of tears when two days old, having been hatched by a machine, and what is home without a mother?" Another died at 14 days old but is big as a turkey. Here are bracelets, necklaces and various ornaments, neatly made from melon seeds by the little Hottentot girls; and that is about what you would expect to see side by side with the clear cakes of beeswax and pretty carvings from ivory and bone; but what a snrprise to find a large exhibit of elegant books all printed and bound in that far away country of the Bushmen.

While wondering over this a very few steps have brought us into Triuidad and the Bermudas, where we find the oddest masses of coral, with endless variety of shape and color, and shells of rare form and tint, deserving more study and appreciation than we have time to give. Fans, hats, bags, brushes, palm-leaf baskets, laces, shell work—a whole forest of shell-work, like a little fairy land, and ladies' jewelry carved from shells, some of dark rich colors. Turtle shells in great black flakes with no suspicion of hidden beauty, and further along the costly polished ornaments fit for the daintiest queen.

In the upper end of the main building you find a quiet corner of Italy where a careful old man watches over some precious treasnres of literature and art. You look through a glass and see dreamy visions of Venice, Rome and the Bay of Naples, with smoky Vesuvins in the background.

I have heard of the lazy atmosphere of Italy, and they must have brought some along, for although this was always a fascinating spot where I was glad to stop a minuto on the way out, yet I never once obeyed the injnnction of Captain Cuttle to "make a noto of it," but took my sharo lazily, as becomes a true Roman, hardly caring for the jealous glances of the old antiqnarian who seemed forever watching for the rogue who would steal a roll of parchment or a block of braided lava.

The Shoe and Leather Department

Is well worth a half hour's attention, for "here is richuess" in the shape of gaily embroidered boots for all sizes of foot, and harness splendid enough to suit the proudest horse, from $5,000 downward.

My adjectives will do but a limping business if I attempt to describe the beautiful and wonderful combinations of leather, made and unmade; for the "raw material" from different countries sets up a rivalry of folds, puffs and bows that look like shining satiu or richest velvet.

Such delicate glove kid in every shade of color and the pretty finished glove alongside; and for contrast we have the crocodile leather, the bear and elephant hide; and one immense skin hung on the wall is said to have belonged to the famous elephant "Empress," who lived several hundred years—so many that a reliable reporter may as well say no more abont it, for who can vouch for the date of that elephant's birth?

In this bnilding are found the sewing machines specially adapted for leather work, and the making of shoes, boots and slippers goes briskly forward. Here, too, the boot blacking fraternity make head-quarters; the different brands of blacking range themselves in rival pyramids and gay little painted fans are given away to advertise the business.

Woman's Nature.

Some wives are not happy who apparently have good husbands. They have married men who are sober, industrious, economical, good providers, and who are respected and esteemed by their neighbors as good citizens. Where, then, is the trouble? These men do not understand woman's nature. She is emphatically emotional. Her affections are very strong. It has been said that love is only a part of man's nature, but it is a woman's life. She is not willing to take anything for granted. Do not, then, be chary of affection's language. Tell her you love her, and show her by your every act that you mean what you say. If there comes a bright, pleasant afternoon, go to the house and take her with you on a buggy ride; no matter if you are busy planting corn, you can get a man to work all the afternoon for fifty cents. Talk to her of old times, let her see that you live to make her happy—that she holds the first place in your affections. Praise her attempts to please yon. Let her see that her efforts are appreciated; and when the ride is over, and you note the sparkling eye, the elastic step, and the bright, happy smile, you will feel more than repaid—and one thing more let me tell you. Such rides and snch treatment are wonderfully potent to keep the doctor—aye, more, the undertaker—from your door. Remember, then, always, that happiness is a preventive of disease. Does your wife love flowers? Then give her what ground she wants; give it freely as her right. Assist her when you can. Try to sympathize with her tastes. Consult her on all important subjects. Does she love music? Then get her an organ or piano, even if it be at the expense of great self-denial. Does she love literature? Then get her books and papers. Gratify her tastes. Let her cultivate her mind—'tis immortal. Let men and women both cultivate and develop their finer qualities. There is something in this life better worth living for than mere dollars and cents. In the world beyond there is eternal progress toward perfection, and the more we develop and cultivate the immortal mind here, the higher will be our rank and position in the world to come.—*Ex.*

AN "able seaman" from Ardamurchan was at the tiller of his sloop one night, shortly after the introduction of colored signal lights on ships. A steamer was approaching, and Archy saw the green and red lights for the first time at sea. He astonished his shipmates by yelling out, "Hard a-port!—hard a-port! We're gaun richt intae the 'pothecary shop at Gonrock!"

At a recent exhibition of paintings, a lady and her son were regarding with much interest a picture which the catslogue designated as "Luther at the Diet of Worms." Having descanted at some length on its merits, the boy remarked, "Mother, I see Luther and the table, but where are the worms?"

A CHAP was arrested in Philadelphia the other day for stealing a clock. The judge told him that as he had taken another man's time to begin with, he conld now take his own time to reflect upon it, and sent him up for throe months forthwith.

The abdication of the Sultan gave three thousand American newspapers an opportunity to remark that "The Sultan Abdul Aziz is the Sultan Abdul as was." And yet some people declare that American humor is dying.

Lace Industries of Europe.

From the fonrteenth to the eighteenth century the art of lace making continued to increase and spread in all the countries of Enrope. It would be impossible to enumerate all the different points tbat are spoken of in the histories of lace that have from time to time been written, or that occur in the inventories and wardrobe accounts of kings and queens, priests and prelates, in those five centuries. Every country in Enrope—nay, every section of the various countries—had its particular point. This is measurably the case at the present day. The lace indnstries of Enrope form no small item in the revenues of those nations. In spite of the inventions in the way of machineries that weave imitations of every old or new point, thousands of women and children earn their livelihood by the manufactnre of needle or pillow lace (hand-made), working mostly in their own cottages, in the open air, or at the windows, on the flowers and designs which are generally given out to them from the central manufactory, where the designing is done, and where the whole is put together by "bride" or "resean" workers after the outside flower workers have finished their part of the work. It is estimated that there are 500,000 lace workers, mostly women and children, in Europe, of whom nearly one-half are employed in France. Almost all of these lace workers perform their labor at their own homes. In Belgium, where there are 900 lace schools, many of which are in convents, there are no less than 150,000 women engaged in lace making. In Auvergne, in France, there are 130,000 thus employed, most of whom work in their homes in the environs of Le Puy, which was one of the earliest centers of this industry, and where it still continues to flourish.

England produces a large quantity of pillow lace. Very beautiful specimens of the laces ot Bedford, Wiltshire, Dorset, Northampton, Buckinghamshire and Devonshire are given in Madame Palisser's History of Lace; but the principal lace-producing town of England is Honiton, Devonshire. Honiton is the best known of the English laces on this side of the Atlantic. The lace was bronght into modern notice and made fashionable by Qneen Victoria, who, commiserating the condition of the lace workers of Devonshire, and wishing to bring their work into demand, ordered her wedding dress of it. Her two danghters and the Princess of Wales following her example, by ordering their wedding dresses also of Honiton, have made it a fashionable and expensive lace ever since.—*Emily V. Battey, in Harper's Magazine for October.*

SIBERIAN EXILES.—A Russian criminal condemned to exile is sent away with very little ceremony; but when an officer of the army, or other person of note, has been sentenced to banishment for life, he is dressed in full uniform and led to the scaffold in some public place. In the presence of the multitnde, and of certain officials appointed to execute the sentence, he is made to kneel. His epaulets and decorations are then torn from his coat, and his sword broken over his head, to indicate that he no longer possesses rank and title. He is declared legally dead; his estates are confiscated to the Crown; and his wife, if he is married, can consider herself a widow, if she chooses. From the scaffold he starts on his journey to Siberia. His wife and children, sister, or mother, can follow or accompany him, but only on condition that they share his banishment, and cannot return to Europe.

DON'T FRITTER AWAY YOUR TIME.—It is said that a man who had accustomed himself to seize a pen whenever his wife was putting on her shawl and bonnet to walk, fonnd, before he snspected such a resnlt, that he had written a tolerable book. Wonders may thus be accomplished by all in their stray moments, would they but improve them. We would not prevent people from reflecting, from resting, or enjoying themselves; but the worst of it is, many waste large portions of their lives without doing any of these. Circumstances favor persons bent on rational employment. Instead of idling away the half-hour before dinner or some appointment, if they take up a book or a pen, or undertake to do any little duty which demands their attention, they find often the time which they might have frittered away much longer than they anticipated. Many a friend might be secured or obliged by a letter written at these intervals by those who profess to have "no time." We all have time, more or less, which might be devoted to the performance of neglected duties.

"WHAT do you sell those fowls for?" inquired a person of a man attempting to dispose of some chickens of a questionable appearance. "I sell them for profits," was the answer. "Thank yon for the information that they are prophets," responded the querist, "I took them to be patriarchs."

A TRENTON editor says he dreads the fall campaign, because of so many parades. He says he is harassed enough now, every Saturday night, by a pay-raid.

WHEN half a dozen people are to dine upon a quarter of a lamb, what's the proper time for dinner? Why, a quarter before six, of course.

A FRENCHMAN got exceedingly angry with a waiter at an English hotel. "You rascal!" exclaimed he, "I blow your nose for you!"

Cats as a Necessity.

Mrs. Jane Grey Swisshelm has just expressed her very decided conviction that cats are mere nuisances and should at once be killed, one and all, as Von Hartman wished men to dispose of themselves. Mrs. Swisshelm's convictions have, of course, some value, but not when they touch the question of cats. Here she is clearly wrong, and in open opposition to a great scientist who not long ago held that England owes its greatness proximately to cats, though ultimately to old maids who foster them most lovingly. The line of argument was as follows: English brain and brawn come from the excellent quality of English beef. English beef, in turn, is fine because of the beautiful clover eaten by the lowing kine. Clover cannot grow unless it is fructified by bees, which bear about the pollen on their heads and wings. The most deadly enemy of bees is the field mouse, whose fiercest and most unrelenting foe is the common domestic cat, reared and loved by the good old maid. *Ergo*, without cats too many field mice; with too many field mice too few bees; without bees no fructification of clover; without clover no good beef; and without good beef no good Englishmen. On the cat question Mrs. Swisshelm is dismissed from court, there being no grounds for action. What the world is, however, aching to hear from Mrs. Swisshelm is what she thinks about the cut of Miss Anthony's new basque. Let us have her profoundest meditations on the subject.—*N. Y. Graphic.*

SUBMISSION.—There comes a terrible moment to many souls when the great movements of the world, the larger destinies of mankind, which have lain aloof in newspapers and other neglected reading, enter like an earthquake into their own lives; when the slow urgency of growing generations turns into the tread of an invading army or the dire clash of civil war, and gray fathers know nothing to seek for but the corpses of their blooming sons, and girls forget all vanity, to make lint and bandages which may serve for the shattered limbs of their betrothed husbands. Then it is as if the invisible power that has been the object of lip-worship and lip-resignation became visible, according to the imagery of the Hebrew poet, making the flames his chariot and riding on the wings of the wind, till the mountains smoke and the plains shudder under the rolling, fiery visitation. Often the good cause seems to lie prostrate under the thunder of unrelenting force; the martyrs live reviled, they die, and no angel is seen holding forth the crown and the palm branch. Then it is that the submission of the soul to the Highest is tested, and even in the eyes of frivolity life looks out from the scene of struggle with the awful face of duty, and a religion shows itself which is something else than a private consolation.—*George Eliot's "Daniel Deronda."*

LITERAL ANALYSIS OF THE BIBLE.—The following is said to be an accurate literal and numerical analysis of the books, chapters, verses, words and letters of the Old and New Testaments. We do not vouch for it, however:

	Old Testament.	New Testament.	Total.
Books	39	37	66
Chapters	929	260	1,189
Verses	23,214	7,959	31,173
Words	592,439	181,253	733,692
Letters	2,728,100	838,380	3,566,480

The middle book of the Old Testament is Proverbs; the middle chapter is Job xxix; the middle verse is in Second Chronicles, chapter xx, either the 17th or 18th; the shortest verse is the 24th, of chapter i, First Chronicles. The middle book of the New Testament, Second Thessalonians; the middle chapter either the xiii or xiv Romans; the middle verse is the 17th of Acts, xvii; the shortest verse is the 25th of John, xi. The middle chapter of the whole Bible (Old and New Testaments) and the shortest is Psalm cxvii; the middle verse is the 8th of Psalm cxviii.

THE GLORY of the farmer is, that in the division of labors it is his part to create. All trade rests at last on his primitive activity. He stands close to nature; he obtains from the earth the bread and the meat. The food which was not, he causes to be. The first farmer was the first man, and all historic nobility rests on possession and use of land. Men do not like hard work, but every man has an exceptional respect for tillage, and a feeling that this is the original calling of his race; that he himself is only excused from it by some circumstance which made him delegate it for a time to other hands. If he have not some skill which recommends him to the farmer, some product for which the farmer will give him corn, he must himself return into his due place among the planters. And the profession has in all eyes its ancient charm as standing nearest to God, the first cause.—*Emerson.*

A daughter of Erin—The new cook, on receiving "short" notice to leave, with a hint that she has given a false character: "An' is it me false character ye're afther casting in me teeth! As if I'd be bringing me thrue character wid me, to loso it in yonr dirty service."

Harvey discovered the circulation of the blood before he was thirty-four. Yet some editors get to be over a hundred before they can discover the exact circulation of their own newspapers.

A DIFFICULT LOCK TO PICK—One from a bald head.

Young Folks' Column.

Anecdote of Princess Victoria.

Vhere is a very pretty little story told by the governess of the Princess Victoria, and which was published not very long ago, of how this little girl of 12 summers felt when she found out quite suddenly that she was to be the queen. It is in a letter addressed to Queen ictoria herself.

"I said to the Duchess of Kent that Your Majesty ought to know your place in the succession. Her Royal Highness agreed with me, and I put the genealogical table into the historical book. When Mr. Davys [the queen's instructor, afterward Bishop of Peterborough,] was gone, the Princess Victoria opened, as usual, the book again, and seeing the additional paper, said, 'I never saw that before.' 'It was not thought necessary you should, princess,' I answered. 'I see I am nearer the throne than I thought.' 'So it is, madam,' I said. After some moments the princess resumed: 'Now, many a child wonld boast, but they don't know the difficulty. There is much splendor, but there is more responsibility.' The princess having lifted up the forefinger of her right hand while she spoke, gave me that little hand, saying, 'I will be good. I understand now why you urged me so much to learn even Latin. My Cousin Augusta and Mary never did; but you told me Latin is the foundation of English grammar, and of all the elegant expressions, and I learned it as you wished; but I understand all better now,' and the princess gave me her hand, repeating, 'I will be good!'"

Is not this a pretty story? Cannot you fancy the little girl, overawed by the great thought of being a queen, and understanding how wonderful it was, yet finding nothing more solemn to say in her simplicity (and, indeed, if she had searched the world for elegant expressions, what could she have found better?) than those dear child's words, "I will be good!" I think there could not be a more charming little historical scene. "I cried much on learning it," is the note which the queen's hand writes on the margin. No doubt the little maiden was frightened into seriousness and drew her breath quick when she first knew what was before her—queen! of an empire upon which, as we are fond of saying, "the sun never sets"—yet only 12 years old; a little girl in a white frock, with big blue eyes opening wide with wonder. Think how you would feel who are the same age, if anything a tenth part as wonderful were told to you!—*St. Nicholas.*

Object Cards.

Object cards are quite the fashion this season among the children of the red schoolhouse. Do you know what object cards are? Not being able to hear your answer distinctly at this distance, I must take the safe course and tell you. You simply fasten any interesting natural object on a card, and write under it, as well as you can, just what the object is. Sometimes you'll get it from father, mother or friend, and oftener you'll know it yonrself; for it is quite likely to be some object that you have been in the habit of seeing nearly every day of your life. One of the little girls sewed a spray of rye on one card, oats on another, wheat on another, barley on another, buckwheat on another, all picked and labeled by herself at various times, and you've no idea what a sensation they made. Little friends and big were glad enough to take up these cards and study out the exact differences between them. Many said they then noted the distinctive features of the varions grains for the first time. A little boy who went to the seaside brought home cards with many pretty shells gummed npon them, one or two shells to a card. He had to look in a work of conchology before he could name his specimens. His sister made a fine set of pressed leaf cards—maple, oak, cherry, apple, sycamore, elm, beech and so on, till she had over a hundred, representing as many different kinds of tree. One boy had a set of butterfly cards, another of beetles, but I didn't quite approve of them. One girl had sets of bark cards, showing over thirty varieties of bark (she and the tree leaf girl go into partnership), and another had a set of pine cone cards—bristling things that had to be kept in a roomy box. The cones were neatly sliced in half, lengthwise, and the flat side was glued to the card.

I cannot begin to tell you half of the styles of object cards that the children of the red schoolhouse have made, and still are making. The Little Schoolma'am read in the newspaper about a sort of progressive object card that is used in some of the Belgian and Swedish schools. On one card is seen the flaxseed, the flax blossom, the thread made of flax and the woven linen. Others show the ore of a metal placed beside some finished article manufactured from the same. In fact, many branches of natural history and manufactures, as you see, can well be studied by making sets of object cards. There is no danger either of making them too simple. The moment any natural object, however common, is looked at inquiringly, it becomes interesting.—*St. Nicholas.*

Two little girls were lately prattling together, and one of them said: "We keep four servants, have got six horses and a lot of carriages; now what have you got?" With quite as much pride the other answered, "We've got a skunk under our barn."

Good Health.

Diphtheria.

Several new cases of this disease have been reported during the week, says the Napa *Reporter*, and one death. Our leading physicians inform us, however, that the disease is of a remarkably mild type, yielding to treatment readily and easily, and that the patients begin to convalesce, as a general thing, within four or five days from the time of attack. Parents should observe the utmost care to prevent the spread of the disease, as a spell of bad weather may cause it to take on the intense form.

A letter from the East to a friend says: "I see from the *Reporter* that you have diphtheria in your town. You may recollect the wonderful success of the late Dr. J. J. Williams in treating this disease, a success considered little short of marvelous by his professional contemporaries. He considered the malady a blood disease, and treated it with intense doses of chlorate of potassa of iron, cutting out the false membrane at least twice a day with dilute muriatic acid, applied on a swab. I think the dose of chlorate of potassa is a tablespoonful every tour hours. I don't know how much tincture of iron he gave, but it was a strong dose. Medicines are but half the treatment, however. Milk punch, egg-nogg, and champagne must be given in quantity, not only to paralyze and subdue the enemy bnt to reproduce the blood which seems to be decomposed and poisonous. Beef tea first and rich juicy steaks subsequently, also form an important link in the treatment. After the patient has commenced to convalesce, in fact is able to leave the house, the doses of chlorate of potassa must be kept up constantly and regularly; which is nnder the theory, borne out in too many instances in practice, that the enemy continues to lurk, and may gain strength and make a new attack, which will be more virulent than the first.

"Understand that the theory of the disease is that the blood is in an abnormal, poisonous condition, produced by a cause. The specifics to check and overcome that cause are chlorate of potassa and iron and the dilute muriatic acid swabbing, bnt whilst you are battling to subdue your enemy you must supply new strength to your patient, or you will lose the fight. That strength is new blood, which new blood you get throngh the milk punches, egg-noggs, champagne, beef tea and beef. This treatment is so well understood here, and has been so successful, that this disease, generally so alarming elsewhere, has lost many of its terrors. The practitioner who grapples with this disease should know that his dispositions must be made for a sharp, short and fierce encounter. He must neither give nor expect quarter; he must neglect no precaution, for his foe is as treacherous as he is formidable. You must overcome him early or he will overcome you. It is murder to temporize with this scourge for a moment.

"Chlorate of potassa is also a preventive. As soon as one child in a family is attacked give all the others this medicine."

HEADACHE FROM EYE-STRAIN.—Dr. Weir Mitchell, in the *American Journal of the Medical Sciences*, observes that few but ophthalmic surgeons are aware of the need of interrogating the eye for answers to some of the hard questions which are put to us by certain head symptoms; and he wishes to impress upon the profession: (1.) That there are many headaches which are due indirectly to disorders of the refractive or accommodative apparatus of the eyes. (2.) That in these instances the brain symptom is often the most, and sometimes the sole, prominent symptom of the eye trouble, so that while there may be no pain or sense of fatigue in the eye, the strain with which it is used may be interpreted solely by occipital or frontal headache. (3.) That the long continuance of oye trouble may be the unsuspected source of insomnia, vertigo, nausea, and general failure of health. (4.) That in many cases the eye tronble becomes suddenly mischievous, owing to some failure of the general health, or to increased sensitiveness of the brain from moral or mental causes. Several illustrative cases are given, and the moral is: Be careful not to strain your eyes.

BUTTER.—Is butter a food—that is, does it nourish and strengthen the body? ANSWER: Butter is a food quite as much as meat. Indeed, there is more strength stored up in an ounce of butter than two ounces of the best lean meat; but butter will not furnish material to build up the tissues of the body as bread and meat do. A man would starve on a butter diet in a very short time. Butter is a fat useful in the body to support animal heat and generate force, as coal and wood do under the boiler, and of some use in building muscular and nervous tissues.—*M. L. Holbrook.*

CAUSE OF DECAY OF THE TEETH.—Dr. L. B. Palmer, of New York, has been led to conclude, from a series of experiments, that the decay of the teeth is not, as is generally supposed, due to acids, but to alkalies (*Cosmos and Brit. Jour. of Dental Science*). With alkalies he reproduced decay of the teeth as it is seen in the mouth, but was unable to do so by acids. With the assistance of an electric current, acids simply acted on and destroyed the whole of the enamel.

Domestic Economy.

The Best Pickles.

A lady writes the Ohio *Farmer:* I told your lady readers awhile ago to get ready all their glass jars, and small ones of earthenware, in time for making nice cucumber pickles. I got the recipe of a lady living between Lake Ontario and Niagara Falls, a woman who is the best of authority and knows how to do everything. I put up a dozen jars of pickles after her recipe last fall and they won the praise of all the housewives who tasted them.

Pick them when they are from two to four inches in length; lay them in a weak brine a day or two or until they are wilted. Take them out and wipe them dry. If you wish them green use a brass kettle; if not, use a porcelain kettle.

Put a layer of cucumbers in the bottom; then slice an onion very thin and put in two or three slices, but not enough to make the pickles taste oniony; a handful of horseradish scattered over, but not enough to make them taste horseradishy; a piece of red and a piece of green pepper, bnt not enough to make a very peppery taste. Use no sugar, no spice. Put in a deep layer of pickles, and then a savoring of the onion, horseradish and pepper, then more pickles. Bruise the radish roots that the strength may become extracted, for in them lies the preservative power. Pour on the best of cider vinegar and heat slowly up to the boiling point. Let them boil long enough to heat them through well.

With a fork pick out the pickles and place them compactly in your jars, fitting them in as closely as possible. You will be surprised to see how many you can store away in a quart or three pint jar by placing them in snugly. Then pour on the boiling vinegar, taking the precaution to keep your jar standing on a folded towel wet in cold water. Cover closely and set away in a cool place. Do not put any of the onion, pepper or radish in with the pickles. The jars that I wanted to keep a year or so I covered with two thicknesses of drilling, between which I spread warm sealing wax, and pressed the covers down closely enough to keep out the air. Those in the small earthen jars I merely covered with stont soft brown paper.

They were the most excellent pickles I ever made. For a family where there is a lot of hired hands, this plan would be too much trouble. In a case of this kind I would take larger cucumbers and make them after the above formula, say a three gallon jug full, and I would put in a double handful of bruised horseradish roots, placing plenty of them on top of the pickles, which should be kept under the vinegar with a plate and marble weight.

Canning Corn.

Cut the corn off the cob, cook in plenty of water. To every six quarts of corn add one ounce of tartaric acid dissolved in a little hot water. Put the acid in before cooking. To prepare this for table, you should pour off the sour water (save it) and pnt in fresh cold water. To a qnart of corn add a small teaspoonful of soda. Let it stand a few minutes before cooking. While cooking put in a teaspoonful of sugar. There is danger of getting in too much soda. If you should, and the corn turns yellow, pour back some of the sour water, and it will turn white again. A tablespoonful will likely be sufficient.

Another, which is said to be one of the best methods, we take from the *American Grocer:* The corn should be picked when just milk ripe. After husking, the kernels are cut from the cob with a gauged knife, and the cob scraped to get all the juice. Next it is placed in tin cans without admixture (though sometimes a little sugar is added to poor corn) and sealed up air tight. Then comes the "processing" or boiling, viz.—subjecting the can and contents to the heat of boiling water from one to two hours, according to the size of the can. This can only be determined by experiment. Next day they are taken from the boiling water and a small hole punched in the top of the can to allow the escape of the gases, and immediately resealed, after which the can is replaced in the hot bath, and allowed to remain as long or longer than at first.

PAN JOURNEY CAKE.—Half pint rice, dessert spoonful of butter, two tablespoonfuls of milk, two tablespoonfuls of fine rice flonr; boil the rice quite soft, and stir the butter in while hot. If the bread is wanted for breakfast, the rice must be boiled the night before; and if wanted for tea it must be prepared in time for it to become cold before the other ingredients are mixed in. When ready to bake, stir in the milk and rice flour; spread the mixture about half an inch thick, in a shallow pan well greased. Bake half an hour in a moderate oven.

DRYING SWEET CORN.—An exchange says: A neighbor and myself have been drying sweet corn this way: We boiled it in a large tin boiler until the milk congealed; then cut off the top of the kernels and scraped out the inside, leaving the outside covering the cob. A large brick oven was heated, nearly as hot as for baking bread, and corn put into it upon bread-pans and pie tins. When the oven was cool, it was heated again; twice heating the oven dried it perfectly. If I dry corn in a stove oven I prefer a coal fire, as it can be kept at an even temperature more readily than with wood.

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Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, September 30, 1876.

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The Week.

We doubt not our readers will acknowledge that we give them at least a *fair* paper this week. The space which we surrender to the full list of the awards at Sacramento is filled with information which should be made both interesting and instructive. The mention of a name in premium list should not be a matter of mere personal vanity nor measured by the amount of money won. In the highest development of an agricultural fair, the taking of a premium signifies that in the noble arts of production the recipient of the reward has reached a point of excellence beyond all competitors. The nearer the awards of a society come to the right to be judged by this standard the more valuable the organization becomes.

As we write, dispatches come announcing that the San Joaquin Valley fair at Stockton and the Contra Costa county fair at Pacheco are in progress under favoring skies. The attendance is reported large and each awakens the full enthusiasm of county friends. We trust they will conclude, as they began, with unusual success. Next week comes the Santa Clara Valley fair at San Jose, and the prospects for it are bright. Thus will the next few weeks be filled in other parts of the coast.

ON FILE.—"Fruit in Tuolumne," J. T.; "Ideal and Real," V. E. B.; "Raising and Training Stock, Etc.," E. B.; "Editorial Correspondence from the Centennial," W. B. E.; "Centennial Chat," M. M.; "In Memoriam," San Bernardino Grange,

THE Governor General of Algeria has informed the Government that a general insurrection is imminent in that province.

California State Fair.

Contrary to usual custom during fair week in Sacramento, the weather this year was very pleasant and cool most of the time. The Sacramento dailies failed to publish the entries at the fair this year. Therefore the premium list in another part of this issue will give a fuller idea of what was exhibited than has been otherwise published.

The daily receipts at the fair ground were reported larger than usual this year, but to the eye the crowds seemed less numerous than at previous seasons.

The display of horses was fine indeed, but not so notable as on some former occasions.

Among the horned stock we noticed the absence of several of the most famous (if not the best) herds in the State. Those present, however, were worth coming a long way to see. This part of the show lacked much in numbers in comparison with that of the year previous. We regret not having notes sufficient to do justice to the very fine stock in this department at present.

The sheep department could hardly have been improved in character by an increase of numbers. The French Merinos by Mrs. Blacow, of Centerville, Alameda county, has never before been equalled in the State. Severence & Peet, of Niles station, Alameda, were behind nothing in their show of Spanish Merinos. J. B. Carrington's graded Spanish Merinos, from Denverton, Solano county, were good, and showed excellent breeding. J. M. Thompson, of Suscol, Napa county, had the only representatives of the Southdown family present. Taken from his running flock they were, indeed, admirable specimens—the finest looking breed of any. There were other meritorious exhibits. We noticed no Cotswold present or other varieties not mentioned. We expect to notice individual exhibits in this and other departments at greater length in future issues.

The Angora goat breeders gave the best display of this stock ever made in America—probably in the world. They show good progress in improving their thoroughbreds as well as high grades. This department attracted universal attention and admiration.

In the swine yard were some very good specimens, but the competition here was not what it ought to be in extent and interest.

Some handsome fowls were shown, but not enough to equal the show in the home yards of some of the exhibitors, doubtless.

We missed many of the prominent exhibitors who have been very regular and conspicuous in their contributions of stock at former fairs. Their places are not likely to be as well filled by others in our annual shows; not very soon, at least.

The grand stand for witnessing the races was completed last year at an expense of $18,000. To this edifying institute ladies and children are invited free. It is said to be the largest stand of the kind in the Union. The seats were full enough at all times, but far from being crowded. Under the stand were three or more pool-selling platforms, and an unusually long series of dram-selling bars. We saw less drunkenness, however, than usual, and no fighting. Better than ordinary management of the races seemed to prevail with the officers. President Carey seemed to rule with firmness and intent to have everything carried out on the square.

Right here let us ask every candid individual in the association, is it necessary to sell these stands to drunkard manufacturers? Is it necessary to have this pool gambling and its accompanying cursing and swearing under the grand stand in order to have a grand trial of the rarest gifts of the noblest of animals? If so, we protest against its going in the name of agriculture! It keeps back thousands of good men and their families annually from attending the fair. It may for the time increase the revenues of the society, but it must be done away before the fairs can receive the full support of the farmers of the State, and thus reach its highest sphere of value and usefulness.

The show of agricultural machinery and implements on the grounds was unusually good.

At the Pavilion

Things were arranged in better order than ever before, and as a whole the display was better than usual. The fruit exhibit was all very fine, although the number of exhibitors were few.

The dried fruits were very creditable in appearance. Raisin curing is commanding rapidly increased attention. The canned fruits and jellies would be difficult to surpass the world over. We should like to have seen more exhibits in all these departments.

The Sacramento beet sugar company, among other choice samples, showed some fine crystallized cubes made by the new Wadsworth machine.

The needle and fancy work was declared by those who know what's what in this line, to be superior.

Sewing machines occupied a large space, as gay and lively as ever. Useful and ornamental merchandise and home manufactured wares were abundant and choice in variety.

Fisk & Gill exhibited electric burglar alarms, electric engines in operation, and gave electric shocks free to visitors, causing much merriment. They are manufacturers of electrical instruments and their show was one of the most engaging in the fair.

The Angora robe and glove manufacturing company gave an exhibit worthy of a world's fair; we shall speak of the articles exhibited at another time.

In the fine art department were many good pictures and as many poor ones. Lussier & Hill's collection, altogether, we think was unsurpassed. Considering Mr. Hill's age and experience, his modern and ancient harvest scenes were considered remarkable productions.

J. B. Carrington, of Denverton, gave the most carefully prepared exhibit of "wild coffee" we have yet seen. He has experimented some seven years with it. His samples differ somewhat in size and appearance, and ripened at different periods. He considers them of different varieties. His parched berries and ground coffee had a strong smell of the genuine article. Professor Hilgard will soon give our readers the result of a scientific investigation of this product. If the doubtful assertion that it is really a species of coffee proves true, there is no doubt an immense area of land, good for little else, will eventually be made productive in this State. We have little faith in the value of the article. Mr. Carrington has used it on his table, but, as a good temperance man, we do not hear him say he hankers after it.

The largest exhibit of fruits was a collection made from different parts of the State by a Sacramento merchant, embracing some 175 varieties, including both native and tropical specimens. It was well selected and arranged, and formed a good study for visitors. It would have been still better if the name and address of the grower had been attached. The exhibitor is worthy of praise for his enterprise, but this class of exhibits should not be allowed to compete with the exhibits of growers. In fact, is it not really discouraging to any single producer to have the best specimens of 100 others massed against him?

The same feature occurred in the vegetable display, where a majority of the whole exhibit was by a single market firm in Sacramento. It was a very fine display, but one which shows, from the limited number of competitors, that our farmers' hearts are not in the enterprise of the State fair as now conducted. Single exhibitors have in times past presented over 200 varieties of fruit, but we doubt if they averaged as fine as the display above mentioned.

R. B. Blowers and James Ruttler were among those who made excellent displays of their own products. [We would thank these gentlemen, and others who had exhibits in this and other lines, to send us information of the articles displayed, and of their methods of culture, kind of soils and extent of their farms and like interesting facts which we had not time to gather, even hastily, at a fair.]

In the Lower Hall.

Here, appropriately at the base of the whole concern, the *Fair Daily Gazette* was issued free by H. S. Crocker & Co. It imparted much life to that realm of the fair.

Excellent bread and butter, made by worthy young damsels and older heads who know how to keep house in California, and ain't ashamed to own it, were exhibited. The show of cheese was so meager that no excellence of quality could make up for the lack of quantity. We would call the attention of the society to the fact that some encouragement is lacking in this department, and that there is no branch of agriculture more important in its future bearing on the progress of our State.

Several bales of hops, fine enough to challenge the admiration of the world, scented up the whole vegetable department with odors as strong and healthful, if not as agreeable, as a barrel of creme de lis sprayed over it would have produced.

The Sacramento plow company showed the California fruit drier, (Dietz patent) in full size working machine. The semi-pyramid of its dried fruits made a good exhibit and attracted much attention. The samples embraced a good variety, including figs, raisins, tomatoes and common fruits.

Fine samples of seed grain were shown, the best mention of which is in our premium list. We think the "Proper" wheat shown was the best looking specimen.

The little busy bee in O. A. Davis' patent hive was a living example of industry for the drones of both sexes who visited the fair. The frames in this hive are made V-shaped, which forms one of several features which the inventor (a practical apiarist of Sacramento) explains as important improvements. He promises to furnish us drawings for illustrating the hive to our readers.

We have not space to mention but a little of what was creditable in both halls of the pavilion, among others the floral display, which was very rare in some of its features.

The Agricultural Implements

Were mostly displayed at the fair grounds. The circular cutting edged gang plow, exhibited by Baker & Hamilton, and tested in the field, attracted more attention probably than any other one implement. Hundreds who saw it operate in a dry alfalfa field spoke favorably of its working. In due time we expect to give an illustration of it in our columns. In the meantime, gentlemen, make the most of your old gangs, and never wait for the wagon or any other new-fangled notion until it is thoroughly proven.

Byron Jackson, of Woodland, had a veteran looking steam wagon working as steadily as an old ox team and twice as obedient. It ran his improved separator, which would have threshed a stack of grain as large as the State capitol (including the legislature when in session) if properly placed on his combined patent self-feeding table and derrick. His are ingenious and practicable inventions.

Joseph Enright's straw burning engine, from San Jose, a handsome piece of machinery, worked quietly and admirably.

Rice's "straw-burner" was exhibited by Marcus C. Hawley & Co., with lots of other first-class agricultural machinery. Their Perpetual hay baling press was much observed and favorably mentioned.

Keller & Co., of Sacramento, gave a prominent display of implements, including the following: Gorham broadcast seed sower and cultivator, illustrated in the advertising columns of the RURAL PRESS. Sizes, 6, 8, 10, 12 and 14 feet. Foust's hay loader, which takes the hay from the winrow and puts it on the wagon without hand labor or waste. This is one of the most novel improvements of the age, and proves on sight to be a very simple contrivance after all. Sulky revolving hay rakes, the Althouse windmills, Fish Bros.' wagons, J. I. Case's 16 foot header, (an extra article which has taken the lead in Sacramento sales this year), the American wine and cider mill (different sizes), feed cutters of superior make, and a large array of other useful and substantial articles for farm and domestic use. Upon conversing with farmers present we found that the Gorham seed sowers are fast becoming popular. They give better results in crops and much economy in seed.

Brewster & Co., Roseville, Placer county, showed several of their iron sectional harrows. They are bona fide, substantial implements which are meeting with success. They will bear the closest examination, and we can advise farmers to give them a trial. An illustrated description may be expected in the RURAL hereafter.

Perkinson's flexible harrow, on the ground from Santa Rosa, is highly recommended. It was recently illustrated in the PRESS.

Nash & Cutts' grain separator had the field to itself. It is a California invention worthy of the consideration of our farmers.

The Sacramento plow company are doing a good business in the manufacture of Ready's gang and single plows. The gang has been well tried and is very popular in many parts of the State. Ready's slip share, made of the best steel, is a new patented improvement calculated to meet with favor, especially as a home production. Mr. Ready also exhibited a new mower of simple construction yet to be tested in this State.

Haswell's Champion horse-power and pump combined attracted much attention for its novelty. Drawings (which the inventor promises us), are necessary to give a good idea of the machine.

Laufkotter Bros.' horse-power for pumping has been well tried and with success. They are simple and durable, and we should think calculated to give ample satisfaction to farmers and others. They also exhibited from their store, corner of 10th and J streets, an improved valve for suction and lift-pumps which we may describe hereafter.

The Pacific artesian and prospecting auger, Price & Morgan, patentees, Oakland, Cal., is apparently a great improvement for well boring. We expect to give drawings of it in future. It brings the debris to the surface in a manner similar to the screw of an auger.

Givens, Jones & Co., of Sacramento, exhibited barbed wire fencing. They were the original introducers of this class of fences on this coast, and have supplied both small and large farms with it from Oregon to San Diego county, California. They have sold over 300,000 pounds per annum, giving universal satisfaction. Their sales are still increasing. They exhibit a new style of galvanized wire and barbs which sells at the same price as the old was formerly sold. The price of the old is reduced. The illustrated advertisements of G., J. & Co., will give our readers an idea of its appearance. It is also becoming extensively used as a top railing in repairing old fences and in improving newer ones. We believe that farmers can depend on this firm for a good article at favorable rates.

We are compelled to restrict our notes of the interesting exhibits in this issue. We shall be pleased to supply any omissions hereafter.

The Receipts.

We are not able to give at this time the exact receipts by the society during the fair, but the *Bee* gives the following summary of the result: "The receipts of the week will not fall short more than $4,000 of last year's show, when the fair lasted 10 days. The expenses this year were so much less than last that the profit will equal if not exceed last year's figures."

State Fair Premium List.

The following are the awards for excellence in the several departments of exhibition at the State fair at Sacramento, September, 1876:

Cattle.

HERD PREMIUMS.

D. M. Reavis—Bull and five cows, first prem.

Coleman Younger—Bull and five cows, second prem.

The Spirit of the Times' gold medal for the best exhibition in any department was awarded to Coleman Younger, of Santa Clara.

The gold medal by R. S. Carey, President of the State agricultural society, and Fred. Cox, director of the society, for the best bull of any age or breed, was awarded to Coleman Younger, of Santa Clara.

AYRSHIRES.

The only exhibitor in this class was Mike Bryte, of Sacramento county. In the class of bulls four years old and over, the prem was awarded to Christopher, and to Woolmet as a three-years-old.

AYRSHIRE COWS.

First prem awarded to Bryte's cow Crocus and calf, and to Dempthis for best four-years-old.

Bryte's Lizzie was awarded a prem as a two-years-old, and Jeanette as a one-year-old, and Laura as a heifer calf.

DURHAM BULLS.

Bull four years old and over—The first prem was awarded to D. M. Reavis, of Butte, for Stonewall, and the second prem to M. Wick, of Butte, for Orlando.

Bull three years old—A. A. Wood of Sacramento, was awarded first prem for Amos Ladd, and J. C. Conner, of Sacramento, for Guy.

Bull two years old—Coleman Younger, of Santa Clara, was awarded first prem for Red Thorndale, and M. Wick, of Butte, second prem for Golden Lawn Duke.

Bull one year old—First prem to J. D. Carr, for Louarns Lord Oxford, and A. J. Scoggins, of Colusa, second prem for Gov. Irwin.

Bull calf—J. D. Carr, first prem for Eighth Duke of Monterey, and D. M. Reavis, second prem for Fourth Duke of Chico.

DURHAM COWS.

Four years old and over—D. M. Reavis, first premium for Goodness; and Colsman Younger, second premium for Gem.

Cow and calf—M. Wick, first premium for Venus 2d; Coleman Younger, second premium for Red Rose of Woodlawn.

Cow three years old—D. M. Reavis, first prem for Minnie; and C. Younger, second prem for Forest Rose.

Cow two years old—C. Younger, first prem for Rose Neil; and A. J. Scoggins, second prem for Essa.

Cow one year old—M. Wick, first premium for Red Beauty; and A. J. Scoggins, second prem for Fanny Fern.

Heifer calves—First prem to A. J. Scoggins for Twin Sister No. 1; and M. Wick, second prem for Ruby 2d.

Horses.

THOROUGHBRED HORSES AND MARES.

Stallions four years old—Henry Williamson, Contra Costa, first prem for Wildidie.

Stallions two years old — Theodore Winters, first prem for Rockford.

Stallions one year old—J. B. McDonald, Yuba, first prem for Charley DeLong.

Mares three years old—R. T. O'Hanlon, Santa Clara, first prem for Sciatica; and J. B. Chase, second prem for Wild Rose.

Mare one year old—James Ward, for Carrie Richardson.

GRADED HORSES AND MARES.

Stallions four years old—John Griggs, Yolo, first prem for St. John.

Stallions three years old—Chase, San Francisco, first prem for Napoleon.

Stallions two years old—Marion Biggs, first prem for b. c. R. S. Carey.

Stallions one year old—D. M. Reavis, first prem for Heitzig.

Stallions under one year—D. M. Reavis, for Blackbird.

D. M. Reavis, first prem for graded mare, Flora Blackbird.

Mare four years old with colt—C. H. Shear, first prem for Alicia Mandeville and colt.

Mare three years old—D. M. Reavis, first prem for Nelly.

Mare two years old—James Stewart, Butte, first prem for Fanny.

Mare one year old—D. M. Reavis, prem for Nannie.

ROADSTERS.

Stallions four years old—C. W. Lightner, prem for California Dexter.

Stallions three years old—J. B. McDonald, prem for Brigadier.

Stallion two years old—H. W. Seale, preminm for Elmo colt.

Gelding—J. M. Estudillo, prem for Waverly.

Roadster mares four years old—T. W. Mott, Los Angeles, prem for Maggie Mitchell.

Mares three years old—C. S. Crittenden, Alameda, prem for Gypsy Davis.

Mares two years old—D. Gammon, Alameda, prem for Bell Davis.

Swine.

BERKSHIRE.

Boar under two years—R. S. Thompson, Napa, Sambo.

Boar over six months old—R. S. Thompson, Napa, Kentuck.

BERKSHIRE SOWS.

R. S. Thompson, Napa, for Inno; also for sow six months old, Queen.

Pair of pigs six to 10 months old—E. Comstock, Yolo, for Dicky and Dolly.

POLAND CHINA HOGS.

Boar two years old—R. Roberts, Yolo, for Newton.

Sow six months old—R. Roberts, for Nelly.

Pigs six to 10 months old—R. Roberts.

SWEEPSTAKE BOARS.

Any age or breed—R. S. Thompson, for Sambo.

SWEEPSTAKE SOWS.

E. Comstock, for Bettie.

SWEEPSTAKE PEN OF PIGS.

R. Roberts, Poland China pigs.

Sheep.

Rams two years and over—Severence & Peet, for Vermont; do second prem for Big Leg, Jr.

Ram one year and under two—Chief, first prem; D. G. Brown, for Silver Fleece, second prem.

Three ram lambs—Severence & Peet, first prem; second prem, George Hancock.

Spanish Merino ewes two years old and over—Severence & Peet, first prem; Fred Cox, second prem.

Spanish Merino ewes one year old and under two—Severence & Peet, first prem; Fred Cox, second prem.

Spanish ewe lambs—Severence & Peet, first prem; Fred Cox, second prem.

For best Spanish merino ram and five lambs—Severence & Peet, first prem; George Hancock, second prem.

FRENCH MERINOS.

Mrs. Blacow's Favorite and five lambs, first prem; and for Sultan and five lambs, second prem.

For best buck two years old and over—Mrs. R. Blacow, first prem for Favorite, and second for Pirate.

Buck one year old:

Mrs. Blacow, first prem for Nero and second for Shepherd's Pride.

Three lambs:

Mrs. Blacow, first and second prem for two separate pens.

French Merino ewes, two years old:

Mrs. Blacow, first and second prem for two separate pens; also, first and second prem for two pens one-year-old, and first prem for best ewe lambs.

SOUTHDOWN SHEEP.

J. M. Thompson, of Napa, showed a good assortment of Southdown sheep, but as there were no prems offered for this class the committee recommended them to the attention of the Board of Directors.

SWEEPSTAKE SHEEP.

Severence & Peet—First prem for ram of any age, ram Vermont.

Mrs. Blacow—Second prem for Favorite.

GRADED SHEEP.

Rams two years and over—S. B. Carrington, for ram Major, first prem.

Rams one year and under two—George Hancock, ram Auburn, first prem.

GRADED EWES.

J. R. Branton, first prem.

GRADED EWE LAMBS.

J. R. Branton, first prem.

J. R. Branton, for a ram lamb, a cross between French and Spanish ewe and ram, second prem.

Goats.

ANGORAS.

S. P. Thomas, buck two years old, H. W. Beecher, first prem.

Landrum & Rodgers, Bob Lee, second prem.

Gilmore Angora Company, buck under two years old, Tilden, first prem.

C. P. Burley, Gipsy, second prem.

Gilmore Angora Company, doe two years old, first prem.

Gilmore Angora Company, pen of three, first prem.

Landrum & Rodgers, pen of three, second prem.

Landrum & Rodgers, doe under two years old, first prem.

Gilmore Angora Company, doe under two years old, second prem.

GRADED GOATS.

C. P. Bailey, ewes over two years old, first prem.

C. P. Bailey, for best ewes under two years old, first prem.

SWEEPSTAKE BUCKS.

L. P. Thomas, first prem for H. W. Beecher; and Landrum & Rodgers, second for Bob Lee.

SWEEPSTAKE DOES.

Landrum & Rodgers, first prem, and Gilmore Angora Goat Company, second. For best pen of ten kids, Landrum & Rodgers, first prem.

Poultry.

T. A. George, Sacramento, first prem for Black Spanish.

John Hessing, Sacramento, first prem for White Cochins, and also for light Brahmas.

A. B. Gilbert, first prem for one lot of fowls.

W. M. Reese, first prem for one lot of fowls.

R. S. Thompson, Napa, prem for bronze turkeys.

A. B. Gilbert, prem for ducks, also for geese.

Fruits and Wines.

Display of apples—De Bernardi & Co., of Sacramento, as exhibitors, $20.

As producer, a special prem recommended to Ira S. Bamber of Placerville.

Twelve varieties of apples—Robert Williamson, Sacramento, $10.

Six varieties of apples—Ira S. Bamber, $5.

Three varieties of apples—J. H. Pan, Brighton, $3.

Display of pears—De Bernardi & Co., Sacramento, as exhibitors, $20.

As producer, a special prem recommended to Robert Williamson, of Sacramento.

Twelve varieties pears—Robert Williamson, $10.

Six varieties pears—Ira S. Bamber, $5.

Three varieties pears—Robert Williamson, $3.

Display of peaches—De Bernardi & Co., as exhibitors, $15.

As producer, a special prem recommended to Ira S. Bamber.

Six varieties peaches—Robert Williamson, $10.

One variety peach (the Orange Cling)—Ira S. Bamber, $5.

Display of plums—Ira S. Bamber, $10.

Five varieties plums—Ira S. Bamber, $5.

One variety plums (Fellenberg)—Robert Williamson, $3.

Green figs—J. Butler, Florin, $5.

Display of tropical fruits—De Bernardi & Co., $10.

Greatest number and best specimens of oranges—J. R. Ketchum, Bidwell's Bar, $5.

Greatest number and best specimens of lemons—De Bernardi & Co., $5.

Display of seedling fruits—Robert Williamson, $10.

General display of fruit, embracing best and greatest varieties—De Bernardi & Co., as exhibitors, $25.

As producer, special prem recommended to Ira S. Bamber.

Twenty-five pounds dried apples—Mrs. E. F. Aiken, Sacramento, $5.

Twenty-five pounds dried pears—Mrs. E. S. Hart, Florin, $5.

Twenty-five pounds dried peaches—Mrs. E. S. Hart, $5.

Twenty-five pounds dried plums—Mrs. E. S. Hart, $5.

Twenty-five pounds dried apricots—Mrs. E. F. Aiken, $5.

Twenty-five pounds dried nectarines—Mrs. E. F. Aiken, $5.

Ten pounds dried figs—Ira S. Bamber, $5.

Exhibition of dried berries—Mrs. E. F. Aiken, $5.

Half peck English walnuts—Mrs. E. F. Aiken, $5

Half peck soft shell almonds—Mrs. James Lansing, Sacramento, $5.

Twenty-five pounds raisins—W. V. Miller, Brighton, $25.

Twelve varieties table grapes—Mr. J. Rutter, $10.

Six varieties table grapes—R. B. Blowers, Woodland, $5.

Three varieties table grapes—P. N. Murphy, Brighton, $3.

Twelve varieties wine grapes—J. Rutter, $25.

Six varieties wine grapes—J. Rutter, $20.

Three varieties wine grapes—R. B. Blowers, 15.

Two varieties wine grapes—J. Rutter, $10.

One variety wine grapes (the Red Tramana—J. Rutter, $10.

Variety of raisin grape, R. B. Blowers, $10.

Best and greatest variety of grapes—J. Rutter, $25.

Second best and greatest variety of grapes—R. B. Blowers, $15.

Grape brandy—Robert Chalmers, Coloma, $25.

White wine—Robert Chalmers, $25.

Red wine—J. Knauth & Co., Sacramento, $25.

Sweet wine—Robert Chalmers, $25.

California port wine—Robert Chalmers, $25.

California sherry wine—Robert Chalmers, $25.

Mrs. H. Conkrite, Walsh station, for blackberry wine, special prem of $5 recommended.

Robert Chalmers, for blackberry cordial and peach brandy, special prem recommended, and recommend favorable mention of some very fine grape wine, 18 years old, made by John Herring, Sacramento.

T. D. Ball, of Sacramento, for 67 pounds Golden russet pears, special prem recommended.

J. B. Carrington, of Denverton, favorable mention for two varieties of so-called California coffee, and a special prem to Robert Williamson for four varieties of quinces.

Flour and Grain.

Sack wheat flour (California manufacture and California wheat), Daniel Olick, Sheridan, silver medal.

Two bushels Chile wheat—T. L. Chamberlain, Lincoln, $20.

Two bushels Australia wheat, M. Biggs, Biggs' station, $20.

Two bushels club wheat—M. Biggs, $20.

Two bushels wheat of other variety, Tappahanock—T. L. Chamberlain, Lincoln, $20.

Two bushels white Clawson wheat—T. L. Chamberlain, Lincoln, $20.

Two bushels Patent Office wheat—J. F. Sargent, Capay, $20.

Two bushels Proper wheat—J. F. Sargent, Capay, $20.

Two bushels Sonora wheat—J. F. Sargent, Capay, $20.

Two bushels White Tuscany Wheat—J. P. Odbert, Sacramento, $20.

Sample of two bushels rye—F. P. Lowell, Sacramento, $20.

Sample of white wild oats—F. P. Lowell, Sacramento, $10.

Sample of two bushels barley—F. L. Chamberlain, Lincoln, $10.

Bushel of yellow corn—Davis & Poorman, Sacramento, $10.

Bushel of alfalfa—F. P. Lowell, Sacramento, $10.

Newbourge & Lages, Sacramento, for best samples oat meal, groat, Graham flour, rye flour, rye meal, white corn meal, yellow corn meal, cracked wheat, malt, special prem recommended.

One barrel flour—Phœnix mill, Sacramento, dip recommended.

Vegetables.

Half bushel red potatoes—F. Gabriella, $5.

Half bushel white potatoes—F. Gabriella, $5.

Half bushel of any other variety (potatoes)—E. L. Aiken, $5,

Best and greatest variety of Irish potatoes, half peck of each variety, F. Gabriella, $10.

Half bushel sweet potatoes, F. Gabriella, $5.

Twelve parsnips—F. Gabriella, $3.

Twelve carrots—F. Gabriella, $3.

Six long blood beets—F. Gabriella, $3.

Six turnip beets—F. Gabriella, $3.

Six sugar beets—John Smith, $3.

Peck tomatoes—John Smith, $3.

Six Drumhead cabbages—F. Gabriella, $3.

Six heads of Red Dutch cabbages—F. Gabriella, $3.

Six heads of any other variety (cabbage) F. Gabriella, $3.

Three heads cauliflower—F. Gabriella, $3.

Three heads broccoli—F. Gabriella, $3.

Six heads lettuce—F. Gabriella, $3,

Half peck red onions—F. Gabriella, $3.

Half peck yellow onions—F. Gabriella, $3.

Half peck white onions—F. Gabriella, $3.

Half peck peppers for pickling—F. Gabriella, $3.

Twelve roots of salsify—F. Gabriella, $3.

Six stalks celery—F. Gabriella, $3.

Six marrow squashes—F. Gabriella, $3.

Six Hubbard squashes—E. Pierce, $3.

Six Crookneck squashes—Davis & Poorman, $3.

Best and largest pumpkin—F. Gabriella, $5.

Dozen of corn, green—F. Gabriella, $3.

Three Mountain Sweet watermelons—F. Gabriella, $2.

Three yellow-fleshed muskmelons—F. Gabriella, $3.

Six cucumbers—Newman & Rodgers, $2,

Half peck Lima beans in pod—F. Gabriella, $3.

Half peck white beans, dry—F. Gabriella, $3.

Half peck kidney bush beans, in pod—F. Gabriella, $3.

Half peck pole beans, other than Lima, in pod—F. Gabriella, $2.

Half peck field peas, dry—E. L. Aiken, $2.

Half peck garden peas, dry—E. L. Aiken, $3.

Half peck castor oil beans—E. L. Aiken, $5.

Best and greatest variety of peas, dry—F. Gabriella, $5.

Half peck gherkin cumbers—F. Gabriella, $3.

Three purple egg plants—F. Gabriella, $5.

Table of vegetables—D. De Bernardi & Co., $30.

Second best table of vegetables—F. Gabriella, $20.

An exhibit of Chile Oregon Peach-blow and Oregon blue Peach-blow and English white potatoes—E. Pierce, special mention recommended.

Sugar beets and exhibit of mangel-wurzel—H. Latham, special mention recommended.

One box Triumph tomatoes—James Thompson, special mention recommended.

Exhibit shock of corn, field pumpkins and sugar beets—Davis & Poorman, special mention recommended.

Implements and Machinery.

Straw burning portable engine, California manufacture—Jos. Enright, prem and diploma, $25.

Imported portable straw burning engine—M. C. Hawley & Co., diploma.

Portable Saw Company and Sweepstake Plow Company—Baker & Hamliton, honorable mention.

Patent shingle machine, California manufacture—M. C. Hawley, $5.

Threshing machine (Buffalo Pitts)—Baker & Hamilton, diploma.

Sulky and hay rake (Tiger Rake)—Baker & Hamilton, diploma.

Perpetual hay press—M. C. Hawley & Co., honorable mention.

Hay press, California manufacture, (Miller Press)—M. C. Hawley & Co., $40.

Feed Cutter—Keller & Co., diploma.

Sweep horse power, California manufacture—Wm. Laufkotter, premium, $10.

Post auger, California manufacture—M. C. Hawley & Co., $5.

Well auger—M. C. Hawley & Co., $5.

Horse power for pumping, California manufacture—Baker & Hamilton (Gillis power), diploma.

Header, California manufacture, S. B. Bowen, $50.

Imported header—Keller & Co., diploma.

Mowing machine, imported—Sacramento plow company, Superior mower, diploma.

Seeder—Kellar & Co., Gorham seeder, imported, diploma.

Broad-cast Seed Sower, California manufacture, $10.

Combined reaper and mower, imported—Baker & Hamilton (Buckeye), diploma.

Harrow, California manufacture—E. Perkinson, (flexible harrow), $10.

Double shovel plow, California manufactnre—Sacramento plow company, $5.

Cultivator, California manufacture—Sacramento plow company, $10.

One-horse cultivator, California manufacture—Sacramento plow company, $5.

Winomill, California manufacture—M. R. Rose, $25.

Farm gate, California manufacture—E. L. Brooks, $15.

Grain separator, California manufacture—Nash, Miller & Co., $5.

Farm feed mill, California manufacture—William Berringer, $10.

Apparatus for raising water for irrigating purposes, California manufacture, $20.

Pump well, California manufacture—Mr. Rose, $10.

Gang plow, California manufacture—Sacramento plow manufacturing company, $100.

Gang plow (deep tiller), California manufacture—Baker & Hamilton, Sweepstakes Plow Co., $20.

Imported gang plow—M. C. Hawley & Co., John Deere plow, diploma.

Assortment of imported single plows—Frank Bros., Blackhawk patent, diploma.

Display of cast cast steel, casting and chilled plow—diploma.

Sod plow, California manufacture—Sacramento plow company, $10.

Stubble plow, California manufacture—Sacramento plow company, $10.

Farm wagon for general purposes, California manufacture—J. F. Hill, $15.

Spring market wagon, California manufacture—J. F. Hill, $15.

Street goods wagon, California manufacture—J. F. Hill, $5.

Two horse family carriage, California manufacture—J. F. Hill, $5.

Assortment of springs and axles—J. F. Hill, diploma and $10.

Imported farm wagon (Bain wagon)—Baker & Hamilton, diploma.

Hay loader (Foust's hay loader)—Keller & Co., diploma.

Plastering lathe, California manufacture—T. A. Sobeller, prem recommended.

Artesian and prospecting auger, California manufacture—Price & Morgan, prem recommended.

Patent portable field fence and gate, California manufacture—Von Brogman & Bryant, honorable mention.

Engine, Eastern manufacture—M. C. Hawley, diploma.

Hot air engine—Huntington, Hopkins & Co., diploma.

Fruit drier—Sacramento plow company, prem and diploma recommended.

One mortising machine, one scroll saw, one wood turning lathe; one circular sawing machine—Osborn & Alexander, diploma for each.

One lawn mower, one sprinkler—Huntington, Hopkins & Co., diploma.

Beehives—C. A. Davis, $3 and diploma.

Fanning mill, $5; grain separator, diploma—Nash, Miller & Co.

Regulator windmill—M. C. Hawley & Co., diploma.

Refrigerator, California manufacture—E. K. Howes & Co., $5.

Feed cooker—George McDaniel, diploma.

Pump—Wm. Laufkotter, $10.

Pump valves—G. D. Hopper, prem recommended.

Beer valves—G. D. Hopper, diploma.

Washing machine—E. K. Howes & Co., diploma and $5.

Butter worker—E. K. Howes & Co., $5.

Churn—E. K. Howes & Co., $10.

Clothes horse—E. K. Howes & Co., $5.

Milk cooler—D. N. Thorp, diploma.

Improved Little Giant machine for hydraulic mining, R. Hosken, special prem and diploma recommended.

Display of pumps—M. C. Hawley & Co., diploma.

Display of cordage—Tubbs & Co., of San Francisco, silver medal.

Furniture.

Dressing bureau—S. D. Hamburger & Co., Sacramento, $10.

Sofa—John Breuner, Sacramento, $10.

Lounge—John Breuner, Sacramento, $5.

Extension table—John Breuner, Sacramento, $5.

Office chair—John Breuner, Sacramento, $5.

Set parlor chairs—John Breuner, Sacramento, $10.

Center table—Capitol furniture company, Sacramento, $5.

Parlor set—John Breuner, Sacramento, $20.

Display of furniture—S. D. Hamburger & Co., Sacramento, $20.

Display of mattresses—Clark, Rickoff & Co., San Francisco, $5.

Writing desk—S. D. Hamburger & Co., Sacramento, $5.

Book case—S. D. Hamburger & Co., Sacramento, $5.

Sick chair or couch—John Breuner, Sacramento, $5.

Spring bed—Clark, Rickoff & Co., San Francisco, $5.

Set bedroom furniture—S. D. Hamburger & Co., Sacramento, $10.

Billiard table—Strahle & Co., San Francisco, $10.

Display of upholstery—John Breuner, Sacramento, $10.

Display of upholstery—J. G. Davis, Sacramento, special mention.

Champion spring bed—A. Nachman, San Francisco, special mention.

Display of cottage furniture—Capital furniture company, Sacramento, prem and diploma recommended.

Spring bed—H. S. Perkins, San Francisco, prem recommended.

Hardware.

Five fire and burglar proof safes—Detroit safe company, by W. G. Williams, agent, Sacramento, $20.

Display of window blind and shutter trimmings (fastener and regulator)—Bullard & Byam, Sacramento, $5.

Display of brass work—Huntington, Hopkins & Co., Sacramento, diploma and $20.

Display of door trimmings—Huntington, Hopkins & Co., Sacramento, $5.

Display of locks—Huntington, Hopkins & Co., Sacramento, $5.

Display of window trimmings — Huntington, Hopkins & Co., Sacramento, $5.

Display of lamps—O. E. Aiken, Nebraska, $10.

Display of general hardware—Huntington, Hopkins & Co., Sacramento, $10.

Display of table cutlery—Huntington, Hopkins & Co., Sacramento, silver medal.

Display of pocket cutlery—Huntington, Hopkins & Co., Sacramento, $5.

Hand saws—Huntington, Hopkins & Co., Sacramento, $5.

Pruning shears—Huntington, Hopkins & Co., Sacramento, $5.

Pruning knives—Huntington, Hopkins & Co., Sacramento, $5.

Display of anti-friction metal — Huntington, Hopkins & Co., Sacramento, $5.

Display of shot—Huntington, Hopkins & Co., Sacramento, $5.

Display of block tin pipe—E. B. Mott, Jr., Sacramento, $5.

Three combination locks—Detroit safe company, by W. G. Williams, agent, Sacramento, diploma recommended.

One double chronometer bank lock—Detroit safe company, by W. G. Williams, agent, Sacramento, diploma and silver medal recommended.

Window blind fastener and regulator, Bullard & Byam, Sacramento, diploma recommended.

Cracking picks—John Henry, Sacramento, diploma recommended.

Mechanics' tools—Huntington, Hopkins & Co., Sacramento, special mention recommended.

Table cutlery—Huntington, Hopkins & Co., special mention recommended.

Pocket cutlery—Huntington, Hopkins & Co., special mention recommended.

Railway car trimmings—Huntington, Hopkins & Co., diploma recommended.

English and American guns and pistols—Huntington, Hopkins & Co., special mention recommended.

Horseshoe nails ready pointed—Huntington, Hopkins & Co., special mention recommended.

Tree pruner (Waier's patent)—Huntington, Hopkins & Co., special mention recommended.

Burglar proof windows—George C. Bates, Sacramento, special mention recommended.

Eighty boxes horseshoe nails—Union horseshoe nail company, Chicago, Ill.; Huntington, Hopkins & Co., Sacramento, diploma recommended.

Game trap—George U. Mayberry, Sacramento, diploma recommended.

Cooking stove for wood—L. L. Lewis, $5.

Parlor stove—E. B. Mott, Jr., $5.

Cooking stove for coal—L. L. Lewis, $5.

Warming furnace—L. L. Lewis, $5.

Cooking range, L. L. Lewis, $10.

Parlor grate—E. B. Mott, Jr., $3.

Ornamental iron vases—E. B. Mott, Jr., $3.

Specimen of marbleized iron—E. B. Mott, Jr., $3.

Portable range, E. B. Mott, Jr., $5.

Laundry stove—L. L. Lewis, $5

Display window blinds—Taft & Bennett, Sacramento, $5.

Display pine door, $10; best display turning lathe work, $5; column and pedestal, special mention; display fancy molding and scroll sawing, $5—Hartwell, Hotchkiss & Stalker, Sacramento.

Display cedar ware, $5; display pine ware, $5; display oak ware, $5; display wooden ware, $25—E. K. Howes & Co., San Francisco.

Premium flour safe — J. H. Taggart, Sacramento, special mention and diploma recommended.

Display of soap—Withington & Bagley, Sacramento, silver medal.

Display of stove polish—Huntington, Hopkins & Co., Sacramento, $5.

Dairy and Domestic.

Ten pounds honey—O. A. Davis, Sacramento, $5.

Cheese under one year old—E. S. Hart, Sacramento, $10.

For best and largest display of cheese—Mrs. E. S. Hart, diploma and $20.

Lot 10 pounds of butter in rolls — Mrs. E. F. Aiken, Sacramento, $10.

Four loaves of baker's bread not less than 48 hours old—W. F. Peterson, Sacramento, $3.

Biscuit—Miss Rose Miller, Sacramento, $2.

Domestic corn bread—Mrs. E. F. Aiken, $5.

Domestic brown bread—Mrs. E. F. Aiken, $5.

Domestic wheat bread—Mrs. J. M. Enos, Florin, $5.

Display of fruit in glass—Mrs. Jas. Lansing, $10.

Continued on Page 228.

HORTICULTURE.

How New Varieties of Fruit are Produced.

Dr. E. Ware Sylvester, of Lyons, New York, is one of the most intelligent and successful nurserymen of western New York. He has given much attention to the production of new varieties of fruit, and we are pleased to be able to lay the results of his research and experience before our readers. He writes as follows:

When we look upon a fine dish of Pippins, Spys, Spitzenberg or Swaar apples, inviting us, with all their golden smiles and flushed cheeks, to "come and dine," it seldom or never flits across our minds that these are the children of the small, sour, astringent crab, and that they have been brought to their present degree of perfection by the hand of man, laboring in obedience to the laws of nature. As one samples some fine specimens of Seckel, Belle Lucrative, Jones or Beurre d'Anjou pears and realizes the fullness of aroma and lusciousness which they possess, it seldom occurs that these are the children by regular descent from the old, small, sour, astringent choke-pear of the forest. But such is the fact. If the laws which God has established are only followed, there is scarcely any limit to the degree of perfection which may be attained.

How it is Done.

There are three ways by which new varieties are produced: First, by artificial propagation; second, by careful selection of seeds from trees favorably located for chance fertilization; third, by chance seedlings. It is a well established fact that the character of the seeds is determined by the fertilization which the blossom receives. If, then, one wishes to produce a cross between two varieties, they dust the pistil in one flower with the pollen obtained from the flower of the other variety. Suppose a pear is to be produced possessing the fine texture and aroma of the Seckel, combined with the large size of the Duchess d'Angouleme. The process is this: At some time before the pollen of the flower is formed, remove the stamens from the flowers of the Seckel to be operated upon. When the pollen of the Duchess is fully mature, take the stamens from these and dust the pistil in each prepared flower of the Seckel. This is sometimes more easily accomplished with a camel's hair pencil, but it matters little how it is done if the pollen from the stamens of the Duchess is thoroughly dusted on the pistils of the Seckel. To avoid the chance impregnation by bees, the blossoms are sometimes covered with gauze. When the fruit of these artistically impregnated blossoms maturos, the seed is carefully preserved and planted. Some are of the opinion that these seeds should never be dried, but should retain the moisture of the pear until planted in the soil. When the pear seedlings grow next season there will be perceptible a very great variety in their habits of growth and appearance. If you wish to shorten the time when the fruit of this crop shall be eaten, as soon as the scions are large enough have them grafted on young hearing trees, rejecting and throwing away all those which produce sharp spines or thorns, as by this sign it will be known that they are traveling in the direction of their choke-pear ancestors and are worthless. This plan promises the best chances of success, and if carefully conducted will give wonderful variations.

Seed Selection Method.

The second plan is by careful selection of seeds from trees favorably located for chance fertilization. If, for instance, one has a peach orchard in which there are 10 or 15 choice varieties, the chances are that the wind and the bees will carry the pollen from the flowers of one variety to the flowers of another variety, and when the pits from these trees are planted, there is a small chance that there will grow some cross which will be an improvement of the character of either. Some 18 years since, having an orchard of about 1,000 peach trees of choice varieties, Mr. Sylvester saved pits and raised about 700 trees which he fruited for several years. It was a perfect curiosity to go into this orchard while in fruit. Here you would find the blood peach as flavorless and worthless as possible; here would be a white peach, white as the snow, but small; there would be a very large peach with the flavor of the pumpkin, and of all the 700 trees, there were only two which were deemed an advance and worthy of cultivation. These two, named Richmond and Atlanta, were cultivated on trial several years, found valuable and have been disseminated from California to Vermont, but as yet have not fruited in large quantities. The Richmond is as large as and resembles the Early Crawford, though the skin is more golden and with flesh almost as sweet and melting as the very best white peaches. The tree is hardy, yielding fruit at Lyons (latitude 43 deg.) four years out of five, and persons who have had abundant opportunities of testing it are confident that it will be the leading market peach of its season, which is four or five days later than the Early Crawford. The Atlanta is a white peach, medium size, of exquisite aroma—a peach for the amateur, unless it may be used extensively for canning, as it is very sweet. Here were two good trees out of 700, and this is thought to be a large proportion. The other trees were cast into the fire. About the same time Mr. Sylvester collected apple trees from choice varieties—such as the Swaar, Northern Spy, Spitzenberg, etc.—planted, reared and grafted them, and now has had for several years in full bearing a very great variety, from the small, almost crab apple, too sour and mean for good cider, up to a large green apple, much larger than the Tompkins County King. This last is an excellent apple when bored and baked on the Eureka plan; but so many of them are disposed to be water-cored that it will not be disseminated. But there is one apple from all this number which will probably make its mark in the pomological world. It is called the "Semper," a word meaning everlasting, on account of its keeping qualities. The quality of the apple is good, hardly first-rate, size medium, flesh white, skin white with a blush, resembling somewhat the Swaar, of which apple it is probably a seedling. The trees have not been much disseminated, but are being tested largely in Germany, where Mr. Sylvester has sent a majority of the trees already raised.

The Chance Seedlings.

To the so-called chance seedlings Mr. Sylvester looked for the third method. To this farmers are indebted for a large number of very valuable fruits, such as Spitzenberg, Northern Spy, Baldwin Seckel, Delaware grape, etc. But these improvements are rendered possible through man's agency, planting trees in close proximity, where they are fertilized by the winds and bees, and the results made valuable by the crops. There are some who have achieved large success by the first plan, among whom are Mr. Fox, of California, who has produced a large number of very fine pears; Mr. Ricketts, of Newburg, N. Y., a very large collection of fine looking and good eating grapes. Mr. Rogers, the well-known Rogers hybrids, and many others who are now laboring for the advancement of fruits.

SHEEP AND WOOL.

Sheep at the Vienna Exposition.

The report of J. R. Dodge, on sheep and wool, at the world's fair at Vienna, has just been published. Although the report is much belated, some interesting facts can be learned, as follows:

The Merino families of sheep greatly predominated, as they do in all countries in which wool rather than mutton is the aim of the breeder. England, with a dense population to feed and lands of high price, sent only long and middle wools. Germany contributed mainly Merinos, thoroughbred and cross-bred, pure bloods and the ameliorated "land sheep" of the country, with a fair proportion of the various breeds of English mutton sheep. France sent only the Rambouillet Merino, which is the nearest approach to the meat-producing types of Great Britain yet attained by the wool-yielding race of Spain. Italy was represented only by the Bergamask sheep, an ungainly race, bearing a medium wool, and characterized by long legs, long and pendulous ears and white face and fleece. There were no living representatives of South America, Africa or Australia, but the wool from those countries in the exposition was nearly all of the Merino type.

The Predominance of Merinos

Of the various families was very marked among continental exhibitors. Of the 377 animals from Germany, 291 were of this blood, 29 were Southdowns, 26 Oxfordshires, 8 Shropshires and the remainder Suabian, Franken and "Haidesnucke." A still larger number of Merinos, though not averaging so high in purity of blood and other points of excellence, are found in the Austrian contribution—not less than 322 being entitled to this distinctive name from the predominance of Spanish blood. The Southdowns appeared to hold the next place in public estimation, having 68 Austrian representatives, with a strong strain of Down blood in no less than 25 placed in the Merino class and Cotswold-Downs, Southdown-Paduaner and Southdown-Birki. The Zackel race and "Gadegast" sheep complete the list of 467 animals entered. Hungary presented 322 Merinos and grades in a list of 431, the black Siebenburger, the Wallachian, Zackel, Zigara and other natives constituting the remainder.

While this predominance of a single race is so evident, it is true that a tendency has been felt for years, growing stronger yearly, toward a larger infusion of English blood and a greater comparative importance to meat production; and the result of this exhibition, most of the English representatives being distributed for breeding purposes, will be a manifest strengthening of this tendency. The improvement of Merinos, so marked in the last 20 years, has been in the direction of larger yet more compact frames, enlarged flesh-taking capacity and earlier maturity, with a coarser but heavier and more profitable fleece. Not less active than in the United States, for a generation past, has been the effort to mold the original flocks to suit the changed demands of the woolen manufacture and the pressing requirement for meat. The examination in detail of the material of the exhibition of the several countries will illustrate these aspects of sheep breeding in Europe.

England.

The Southdowns take the lead in point of numbers, with 40 animals; 20 from the flock of Lord Sondes, Elmham hall, Norfolk; and as many from the Merton flock of Lord Walsingham. The former represented a flock of 1,200 pure-breed Sussex Downs, founded in 1823, and distinguished for symmetry and thriftiness. They were sold to go to Hungary, Galicia, North Germany and Russia. The latter, from a flock of world-wide renown, were sold to the Archduke Albrecht for his estates in Austria; to Count Fries, Czernahora, Moravia; Baron Magnus, Dresha, Saxony; and to breeders in Russia. The Elmham hall rams yield fleeces of eight to 10 pounds, and those of Merton farm are quite as heavy.

The Cotswolds numbered 26, in three entries. Those from the Agricultural College farm, Cirencester, Gloucestershire, 12 in number, representing a flock of 200 ewes and 60 rams and 180 fattening sheep, illustrating well the especial aims of breeding at the college farm, viz.: a heavy fleece, depth of flesh and great hardiness. The fleeces weigh from 13 to 20 pounds. The rams are in great request for cross-breeding with Southdowns, Hampshires and mountain sheep, to give length to the fiber and weight to the fleece. There were also eight from Mr. T. Beale Brown, Salperton park, Gloucestershire; and six from Thomas Fulcher, Elmhall, Norfolk.

Germany.

The Merinos of Germany have been greatly modified in later years by crossing, so that it might be impossible to find a flock with the precise characteristics of 20 years ago, though bearing the same name. The Electoral, Negretti and Rambouillet are mingled according to the whim or judgment of the breeder, the better to suit his views of the demands of the market for wool or meat, and the result is the loss of the distinctive character of the originals. The spindle legs have been shortened, the flat ribs rounded, the bald head covered, and the very fine super-Electoral fleece has been displaced by longer, coarser and more abundant wool, which brings more money at a slightly reduced price per pound.

Number and Value of Sheep in the United States.

From the statistical presentation of the Department of Agriculture at the Centennial exhibition, we gather the following, at date of January, 1876:

State.	Number.	Average Price.	Value.
Maine	525,900	$3.78	$1,987,902
New Hampshire	242,400	2.70	654,480
Vermont	490,500	3.74	1,834,470
Massachusetts	76,300	3.63	276,969
Rhode Island	25,300	3.96	100,188
Connecticut	92,500	4.18	386,650
New York	1,936,500	3.95	7,649,175
New Jersey	125,800	5.01	630,258
Pennsylvania	1,640,500	3.58	5,872,990
Delaware	23,600	3.67	86,612
Maryland	141,200	3.89	549,268
Virginia	356,400	2.93	1,044,252
North Carolina	283,900	1.58	448,562
South Carolina	142,700	1.81	258,287
Georgia	371,200	1.73	642,176
Florida	37,800	1.94	73,332
Alabama	185,900	1.93	358,787
Mississippi	151,800	1.81	274,758
Louisiana	68,800	2.04	140,352
Texas	1,691,400	2.00	3,382,800
Arkansas	192,400	2.01	386,724
Tennessee	341,700	2.11	720,987
West Virginia	544,100	2.55	1,388,475
Kentucky	683,600	2.85	1,948,260
Ohio	4,546,600	2.72	12,366,752
Michigan	3,450,600	2.65	9,144,090
Indiana	1,250,000	2.62	3,275,000
Illinois	1,311,000	2.41	3,159,510
Wisconsin	1,162,800	2.74	3,186,072
Minnesota	190,200	2.63	500,226
Iowa	1,663,900	2.66	4,425,974
Missouri	1,284,200	1.86	2,388,612
Kansas	123,900	2.80	346,920
Nebraska	48,900	2.77	135,453
California	6,750,000	2.02	13,635,000
Oregon	710,500	1.99	1,413,895
Nevada	20,900	2.60	54,340
The Territories	3,049,200	2.80	8,537,760
Total	35,935,300		93,666,318
Grand average price		$2.60	

Judging Steel by the Eye.

At a meeting of the American association for the advancement of science, in Buffalo, a paper on "The Relations of Structure, Density and Chemical Composition in Steel," was read by John W. Langley. It has long been known to practical men, says the *American Manufacturer*, that the appearance of the fracture of steel bears some relation to its mechanical properties as developed in the machine shop. It has been further known in a general way that this appearance was connected with the quantity of carbon in the metal. The researches embodied in this paper extend over a period of two years, and show, first, that steel can be selected by ocular inspection alone with a high degree of precision, and that differences of less than seven-hundredths of one per cent. of carbon can be certainly known by the appearance of the freshly broken ingots. Twenty ingots, manufactured by Messrs. Miller, Metcalf & Parkin, of Pittsburg, formed the material for these determinations. Second, it was shown that in general the specific gravity decreases in proportion with the increase of carbon, though there are some apparent exceptions to the rule; and third, that when the metal is hardened by being plunged into water the density is less the greater the heat to which the specimen is subjected. The paper was accompanied by extensive tabulated reports. In conclusion it was asserted that the time had arrived when the eye had very nearly become the rival of chemical analysis in this branch of metallurgy.

The Immigrant Bureau Re-Organized.

A Free Employment and General Information Office.

The Peoples' and Grangers' Immigrant Bureau, which accomplished so much good last year, has been re-organized under a new Board of Directors, and will continue its good work of attracting immigration and providing for the necessities of the new comers FREE OF CHARGE. Four thousand and eighty-two situations have been found for applicants since May, 1875. The Bureau expects to receive orders for all the help that may be required in the country the present season. Four hundred persons visit the office daily. Descriptions of land, maps, pamphlets, circulars, and local newspapers, should be sent to the Bureau. They will be freely distributed among inquirers. The Bureau was established by the State Grange, and being supported *entirely* by subscription NO CHARGE is made for any business transacted. The following gentlemen are on the Board of Directors for the ensuing year: Mayor A. J Bryant, Chairman; I Friedlander, C. Adolphe Low, Mark L. McDonald, Amos Adams, J Regensburger, C. D. Sullivan, Charles Lux, George H. Eggers, J. C. Wilmerding, C. J. Cressy, John Morton, Col. A. Wason, Hon. F. A. Gibbs, F. B. Taylor, C. H. Dennison, Claus Speckles, Charles Kohler, A. W. Thompson, All communications should be addressed, J. EARL, MANAGER, IMMIGRANT BUREAU, Grangers' Building, 40 California street, San Francisco.

THE NEW WILLCOX & GIBBS Automatic Tension Silent Sewing Machine is the latest and most marvellous invention in sewing mechanism. It is the only sewing machine that can be used successfully without instruction or experience, and invariably does perfect and durable work. First premium at American and Franklin Institute Fairs, November, 1875. Send for circulars and price-list to Willcox & Gibbs Sewing Machine Co., E. B. Cutler, Gen. Agent, 111 Post street, S. F.

Superior Photographs.

To be sure of a good picture, you have only to patronize G. D. Morse's Palace of Art, at No. 417 Montgomery street, S. F. The publishers of this journal have patronized Mr. Morse for many years, and do not hesitate to say that his pictures are not excelled by any we have seen produced in this or any other country. No one can ask for a better man to patronize than Mr. Morse. He is affable and respectful to all.

HARD ON THE PUBLISHERS.—Some of our subscribers when called upon by our agents insist that they have sent us notices through (perhaps) a neighbor, the postmaster, or a letter, and we have taken no notice of their orders, for which they feel hard towards us. Now, we never received such notices without responding to them. *It would be suicidal to our interest to ignore them.* The fact is that it too frequently happens that people misdirect their letters; too frequently forget to put the right (or any other) kind of stamps on their letters; they too often send a copy of the paper back, which may never reach our business office, or if it does reach us, may lack the name of the town and county in which the subscriber lives, in which case we cannot (if we have his name) tell what part of our list to find it, to cross it off or change it, without looking over some 10,000 names. Postmasters and their clerks make omissions and mistakes as well. ☞ When you have business with this office remember postal cards and letter stamps are cheap, and ask no one to do that which you can well do yourself. tf

AMERICAN MANURES, OR FARMERS' AND PLANTERS' GUIDE.—Comprises a description of the elements and composition of plants and soils; the theory and practice of composting; the value of stable manure and waste products, etc. Also, a chemical analysis of the principal manufactured fertilizers—their assumed and real value—and a full expose of the frauds practised upon purchasers. By Wm. H. Bruckner, Ph. D., Phila. Sold at this office. Price, $1.75; post paid.

THE THRESHERS' GUIDE, by D. W. Hollihan, a practical operator with threshing machinery in California and other States. A book of useful and friendly hints to the grain growers, machine owners and threshing superintendents and workmen. Published at the RURAL PRESS office, in 1872. Price, $1; in limp cloth binding, 75 cents; postage paid.

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

GOOD PRINTING INK.—We prefer Chas. Enen Johnson's printing inks, having used them on this paper for the past four years. H. S. Crocker & Co., printers, stationers, blank book and paper dealers, are Johnson's S. F. agents.—DEWEY & Co., Publishers.

THE DAVIS VERTICAL FEED SHUTTTLE, LOCK STITCH SEWING MACHINE.

The Lightest. The Simplest. The Cheapest. The Best.

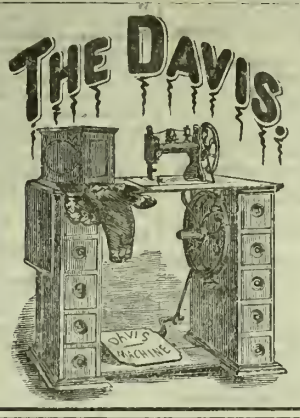
Is constructed on an entirely different principle from all others, and is not controlled by any combination. The feed used in the manufacture of all other Sewing Machines, and known to he the property of a combiuation, *is successfully displaced*, and a more simple, durable and powerful FEED, that contains but one-fourth the machinery required for the old feed, takes its place. A moment's glance at this novel combination for a FEED, will convince the reader of its superiority, for the following reasons:

1st. The presser foot is always raised from the fabric when the feed takes place, thereby presenting no resistance to seams or ridges while feeding.

2d. The needle being in the fabric, moving with the VERTICAL FEED-BAR—with its full pressure on the goods, renders the feed sure and strong, and the stitch uniform in length.

3d. The needle being in the goods at the time the feed takes place, renders it impossible to full one piece while the other is stretched.

4th. The VERTICAL FEED-BAR being behind the needle renders it capable of sewing elastic goods, making a smooth and flexible seam, with stitch alike on both sides—thus enabling the sewing of any number of thicknesses without basting, and operating with equal facility in the heaviest as well as the lightest fabrics.



$1000 Challenge.

The Agents of the DAVIS FAMILY SEWING MACHINE will stake one thousand dollars that no person can with any under-feed Family Sewing Machine follow the DAVIS through its great range of work.

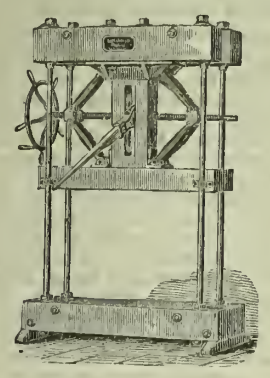
If any company, or company's agents feel inclined to accept this challenge, we ask them to come forth and show their colors. Some of them assert that the DAVIS is a "needle feed;" "will blind a person;" "will soon wear out;" all of which is false. We defy them to prove any of these assertions.

MARK SHELDON, Agent for Pacific Coast, 130 Post St.

Agricultural Articles.

BOOMER PRESS,

For WINE, CIDER, PAPER, LARD, TALLOW, TOBACCO,



Etc., Etc.

We Claim for the BOOMER & BOSCHERT WINE PRESS a Great Superiority over any other in the Market, for the Reasons:

FIRST—That while it is STRONG, and equal to the hydraulic in power, it is of SIMPLE construction.

SECOND—Its power is ACCUMULATIVE, increasing as the substance becomes more dense.

THIRD—It will PRODUCE MORE WINE with the least LABOR, and in the least TIME.

For particulars and prices, address

A. L. FISH & CO.,

9 & 11 FIRST STREET, San Francisco.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power

[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substaotial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,

Cor. J and 10th Sts., Sacramento.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.

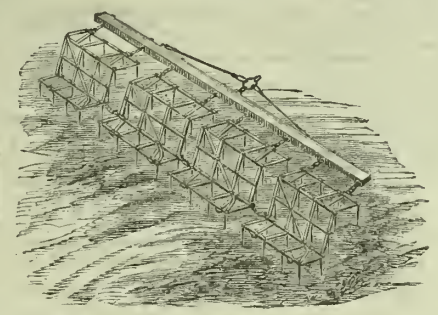


Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over oradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m **MATTESON & WILLIAMSON,**
Stockton, Cal.

IRON SECTIONAL HARROW.



This Harrow was Awarded the First Premium at the California State Fair in 1875.

The undersigned, having purchased the patent right of this Harrow for California, are now manufacturing them in Roseville, Placer County, and would call the attention of Farmers to the superior merits of this Harrow over all others now in use.

As its name indicates, it is made in sections of about three feet in width, each section having four bars, in which the teeth are inserted, and by connecting the sections with links, the Harrow is formed.

Should a farmer require a Harrow upon his farm to do all kinds of work, he should purchase six sections, which would be suitable for four horses, and would cut 18 feet in width; by disconnecting two sections he will have a two or three horse Harrow, cutting about 13 feet. One section alone is complete in itself, and suitable for garden work, with one horse. The Harrows are made of the best quality of iron, and with teeth warranted to be steel.

We give a few of the many reasons why we claim superiority for these Harrows over all others in use on this Coast:

First—By the lightness of draft, taking into consideration the amount of work it does.

Second—By working uneven or rolling ground just as well and as evenly as if it was entirely level.

Third—They are made of Iron and Steel, and therefore are not affected at all by sun or rain, or by heat and cold; they are always tight, and ready for use; they are also durable. A farmer purchasing one has a Harrow that will last a life time.

Fourth—The teeth being fastened with a nut and screw into the cross bars, should one break, another can be inserted in a moment. We are making three sizes, all being the same in width, but different in depth and weight only.

Prices, from $12.50 *to* $15.00 *per Section.*

All orders sent to

BREWSTER & CO.,
Roseville, Placer Co ,

Will be promptly attended to, and satisfaction guaranteed in all cases.

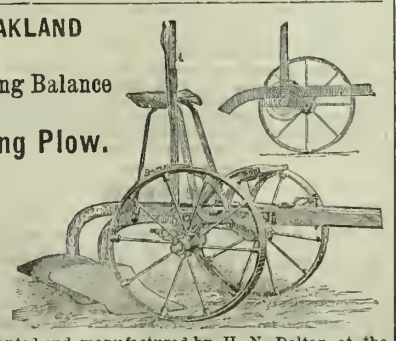
CAUTION.

It has come to our notice that certain parties are now making this Harrow in this State, and that several of them have been sent here from the East. Now this is to *caution* all persons against making, selling or buying them, so made and offered for sale, as we shall enforce our rights in relation to the matter, and would call the attention of all persons infringing upon our patent, to the *law* in regard to it.

BREWSTER & CO.,

Roseville, July 15th, 1876.

OAKLAND Spring Balance Gang Plow.



Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal Established in 1858. Send for Circular and Pricelist

Rupture.

"Metal Trusses being rigid and unyielding, are often displaced from their position by the motions of the body, in consequence of which they ENLARGE rupture instead of healing it. Their pressure is often wrought upon parts of the body which are healthy, thereby causing lumbago and other diseases of a dangerous nature." Call on the MAGNETIC ELASTIC TRUSS CO., 609 Sacramento Street, S. F.

MERCHANT MILL FOR SALE,

And 150 Acres Land. Turbine Wheel, 190 foot fall, 35 barrels per day. Good Home Market and Never Failing Water.

S. A. POLLARD,
San Luis Obispo.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS.

OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

A. MAILLIARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.); Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

P. STANTON, Sacramento, Cal., breeder of choice Jersey Cattle. Bulls, Cows and Calves for sale.

SHEEP AND GOATS.

GARNIER BROS., Encino Ranch, Los Angeles Cal., breeders of pure French, Spanish, and Saxon Merino Sheep. Price, from $25 to $50, each.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co. Cal., breeder of Pure-Blooded French Merino Sheep

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

T. A. WILSON, Grayson, Stanislaus county, Cal. Breeder and Importer of Spanish Merino Sheep.

LANDRUM & RODGERS, Watsonville, Cal., breeders of Pure Breed Angora Goats.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

M. FALLON, Cor. Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Fowls for Hatching from Pure Bred Fowls.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

SWINE.

ALFRED PARKER, Beliota, San Joaquin Co., Cal., Breeder of Improved Berkshire Swine.

Grangers' Bank of California,

42 California Street,

SAN FRANCISCO.

Authorized Capital, $5,000,000.

OFFICERS:

PRESIDENT.....GILBERT W. COLBY.
MANAGING DIRECTOR.....C. J. CRESSEY.
CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

The Bank was opened on the first of August, 1874, for the transaction of general banking business.

HEALD'S BUSINESS COLLEGE,

No. 24 Post Street,
SAN FRANCISCO, CAL.

The largest and best Business College in America Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

LADIES' DEPARTMENT.—Ladies will be admitted for instruction in all the Departments of the College.

TELEGRAPHIC DEPARTMENT.—In this Department young men and young ladies are practically and thoroughly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars, E. P. HEALD, President Business College, San Francisco, Cal.

An Important Event IN REAL ESTATE.

AT AUCTION,

IN NAPA CITY,

On Long Credit,

SATURDAY, SEPTEMBER 30th, 1876,

At 12 o'clock M.,

SUBDIVISION

—OF—

500 ACRES RICH RIVER BOTTOM,

—AND—

Alluvial Table Land, COMBINED.

25 HOMESTEAD GARDEN FARMS, RANGING FROM 15 ACRES TO 25 ACRES EACH,

One Mile from and in Full View of the City of Napa.

2 MILES OF NAVIGABLE RIVER FRONT, 1¼ MILES OF RAILROAD PASSING THROUGH IT, ONE MILE OF COUNTY ROAD FRONTING IT.

2 STEAMBOATS RUNNING ON ALTERNATE DAYS PASS THIS PROPERTY, TO AND FROM SAN FRANCISCO.

6 TRAINS OF CARS DAILY PASS THROUGH IT.

THE PROPERTY IS OFFERED ON ITS MERITS, AND FOR THE PURPOSE OF SELLING.

NO FANCY PRICES ARE ANTICIPATED.

IT IS SUPERIOR

Vegetable Land, Strawberry Land, and Alfalfa Land.

TITLE PERFECT.

For a view of the ground and all particulars, apply to

STERLING & THOMPSON,
Napa City, Cal.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

To All Interested in the Production of CALIFORNIA RAISINS.

We are now in communication with reliable parties who have had 20 years' experience in the business in Spain, whereby we can furnish any information with regard to curing, packing, etc., gratis. We have perfected arrangements by which we can furnish cuttings of the famous Malaga Raisin Grapes direct.

FEUSIER & SPAFFORD,
310 and 312 Clay Street, San Francisco.

ALEX. BUSWELL,
BOOK BINDER, PAPER RULER
AND BLANK BOOK MANUFACTURER,
521 Clay Street, S. F.
Blank Books Ruled, Printed, and Bound to Order

A Boy for the Country.

An intelligent lad, 13 years old, wants a permanent home in the country. Address J. B. PORTER, dentist, Oakland, Cal., or at this office.

50 **Visiting Cards,** with your name finely printed, sent for 25c. We have **100** styles. **Agents Wanted. 9** samples sent for stamp. A. H. Fuller & Co., Brocktou, Mass.

Continued from Page 225.

Six jars raspberry jelly—Miss Rose Miller, $5.
Six jars red cnrrant jelly—Mrs. Jas. Lansing, $5.
Six jars blackberry jelly—Mrs. E. S. Hart, $5.
Six jars strawberry jelly—Miss Rose Miller, $5.
Six jars quince jelly—Mrs. E. S. Hart, $5.
Six jars blackberry jam—Mrs. E. F. Aiken, $5.
Six jars raspberry jam—Miss Rose Miller, $5.
Display of preserves in glass—Mrs. Jas. Lansing, $10.
Display of pickles—Mrs. Jas. Lansing, $5.
Display of brandied peaches—Mrs Jas. Lansing, $5.
For butter—M. C. Hunt, Sacramento, special prem recommended.
Domeatic brown bread—Miss Emma M. Hartwell, Sacramento, aged 13, special prem recommended.
For blackberry syrup—Mrs. E. S. Hart, special prem recommended.
For canned fruits—Mrs. F. B. Ball, special prem recommended.
Display of fruit in glass—Mrs. Jas. Lansing, gold medal recommended.

Fancy and Needlework.

Crochet shawl—Miss Nellie E. Taylor, Sacramento, $5.
Patchwork quilt—Mrs. William Garrish, Sacramento, $5.
Specimen of wax flowers—Miss Annie Grnhler, Sacramento, $10.
Embroidered sofa cushion—Mrs. Walther, Sacramento, $5.
Specimen of flower work—Mrs. Walther, Sacramento, $5.
Silk embroidery—Miss Nettie M. Montfort, Sacramento, $5.
Display of millinery—Mrs. R. W. Murphy, Sacramento, $20.
Variety of artificial flowers—Mrs. R. W. Murphy, Sacramento, $10.
Velvet bonnet—Mrs. R. W. Murphy, Sacramento, $5.
Silk bonnet—Mrs. R. W. Murphy, Sacramento, $5.
Child's Affghan—Mrs. H. Kuhl, Sacramento, $5.
Assortment of gloves and mittens—Angora robe and glove company, Sau Jose, silver medal.
Best silk quilt—Mrs. Latcher, Sacramento, $5.
One hair wreath—Mrs. L. A. Logan, Sacramento, special prem recommended.
Specimen feather work (wreath)—Mrs. J. M. Pierce, Sacramento, special prem recommended.
One boudoir ornament—Mrs. E. R. Hamilton, Sacramento, special prem recommended.
Two cotton embroidered pillows (hy hand)—Mrs. H. Stettin, San Francisco, special prem recommended.
Four braided pillows (ornamental)—Mrs. H. Stettin, San Francisco, special prem recommended.
One handkerchief, embroidered—Mrs. H. Stettin, San Francisco, special prem recommended.
Collection of moss work—Mrs. R. W. Lewis, Sacramento, special prem recommended
One basket wax flowers—Mrs. C. Lages, Sacramento, special prem recommended.
One embroidered toilet set—Mrs. H. Kuhl, Sacramento, special prem recommended.
One frame collection of butterflies and bugs—J. F. Farnsworth, Sacramento, special prem recommended.
Ten yards of rag carpet—Alex. McKay, $10.
Knit Bedspread—Mrs. C. Meirdiks, $5.
Exhibition of naval and military goods and regalia—R. Dale & Co., silver medal.
Display of fancy goods—R. Dale & Co., $20.
Thirteen and a half yards of rag carpet—Mrs. Mary Walters, of Vallejo, special mention and diploma recommended.
Hand sewing of four pieces—Miss Lida Clinch, Sacramento, silver medal.
Pair knit cotton stockings—Miss Selena Noble, Sacramento, napkin ring.
Tatting—Miss Lizzie Ott, napkin ring.
Crochet work—Miss Mamie Wiseman, napkin ring.
Silk embroidery—Miss Carrie Taft, butter knife.
Cotton embroidery—Miss Mamie Wiseman, butter knife.
Worsted embroidery—Miss Carrie Taft, butter knife.
Wax work—Miss Carrie Hamilton, $5.
Silk quilt—Miss Carrie Taft, $5.
Patchwork quilt—Miss Sonama A. Klees, napkin ring.
Cotton quilt—Miss Matile E. Hnbbs, napkin ring.
Pen drawing—Master Charlos Thompson, napkin ring.
Hand made shirt—Miss Emily Thompson, napkin ring.
Leaf and moss work—Miss Emma M. Hartwell, napkin ring.
Hair work—Miss Lizzie Ott, napkin ring.
Braid work—Miss Mamie Wiseman, napkiu ring.
Three marble and sandstone match boxes—Master W. J. Ford, Sacramento, honorable mention recommended.
Wall pocket—Miss Flora Carroll, honorable meution recommended.
Drawing of a house—Miss Minnie Carroll, honorable mention recommended.
Pencil drawing—Miss Celia C. Simmons, honorable mention recommended.
Two pencil drawings—Miss Eva Griffitts, honorable mention recommended.
Also that honorable mention be made of Mrs. Bingay's scholars for drawings, viz: Maud Denison, Lucy Brewer, Edwin Brewer, Linnie Steffens, Moses Lavison, Emma Irwin, Dudley Reed, Wallace Terry, Add. Hinkson, Prentis Maslin, Harry Turk, Willie Cluness, Minnie Clunesa, Mabel Cluness, Victor Hartley, Wynns Woods.
The following special prems were recommended:
Crochet sack—Miss Emma M. Hartwell, napkiu riug.
Worsted embroidery—Minnie Drew, napkin ring.
For toilet set—Mamy Kuhl, napkin riug.
Crochet tidy—Miss Fannie Foster, napkin ring.
Java canvas tidies and one honeycomb tidy—Alice Foster, napkin ring.
Pencil drawing—U. M. Reese, napkin riug.
For collection of fancy work—Amy Hubert, napkin ring.
Embroidered silk sofa cushion—Mamie Wiseman, a special prem of $5.
Beadwork—Millie Robin, napkin ring.
Pebble and shell monument—Emma M. Hartwell, napkin ring.
For best general collection of fancy work—Emma M. Hartwell, $5.
Two pieces fancy work—Miss Minnie Hartwell, napkin ring.
Toilet set and tidies—Nellie Dunlap, napkin ring.
Toilet cushion—Miss Sophia Cutter, napkin ring.
Gilt embroidery on velvet—Miss Lois Chapman, $5.
Toilet mats—Emma Crackbon, napkin ring.
Two pieces fancy work—Lucy Williams, napkin ring.
Wax work and hair work—Misses Emma and Julia Nicolaus, butter knife.
Crochet tidies—Miss Nellie Miller, butter knife.
Crochet tidy—Miss Emily Deeley, butter knife.
Drawings of hand and head—Flora Carroll, butter knife.
Watch pocket—Miss Lella Carroll, butter knife.
Pair toilet mats—Nettie Hamilton, napkin ring.
Hand made dress of three pieces—Frances M. Sherman, $5.
Two cards pressed flowers—Miss Alice Belle Lawson, butter knife.
Lace work—Annie M. Winters, butter knife.
Pillow shams—Annie M. Winters, napkin ring.
Three tidies—Nettie Belle Avery, butter knife.
Pillow shams—Barbara Zwickel, butter knife.
For bracket frame—Frank Bruce, honorable mention recommended.
For letter receiver—Miss Hattie Knox, honorable mention recommended.
For worsted wreath—Nellie Ogden, honorable mention recommended.
Worsted worked stool—Minnie Heinrich, honorable mention recommended.

Manufactures.

Display of leather—Brown, McKay & Co., of Benicia, silver medal and $10.
Set double harness—J. T. Stoli, silver medal and $10.
Set single harness—A. T. Nelsen & Son, $10.
Display of Mexican saddles—J. T. Stoll, $10.
Display of saddle and bridles—S. Roth, $10.
Display of saddle trees—M. Shink, $5.
Improvement on single harness—to shorten croup strap, raise breeching and breast collar with but one buckle instead of four, as on ordinary harness—S. Roth, special premium recommended.
Improvement on Stoll's jockey saddle—his own invention—J. T. Stoli, special mention.
Display of horse collars and horse boots—A. T. Nelson & Son, special mention.
Best exhibition of silk goods by one factory—R. Dale & Co., $25.
Best display of woolen goods by one factory—Capital woolen mills, $100.
Double carpet coverlet—R. Dale & Co, $5.
Mackinac blanket—Capital woolen mills, $5.
Stocking yarn—Capital woolen mills, $3.
Silk hat—J. C. Meussdorffer, $5.
Soft hat—D. H. Quinn, Sacramento, $5.
Exhibit of men's hats and caps—J. C. Menssdorffer, Sacramento, silver medal.
Collection of furs—D. H. Qoinn, Sacramento, $25.
Display of colors in printers' ink—Horace P. Fletcher, San Francisco, diploma recommended.
Display of men's and boys' boots and shoes—James Parsons, Sacramento, silver medal.
Display of ladies' and girls' boots and shoes—James Parsons, Sacramento, silver medal.
Pair ladies' gaiters—James Parsons, Sacramento, $3.
Pair gent's dress shoes—James Parsons, $5.
Pair Congress gaiters—J. Kaerth, Sacramento, $5.
Pair ladies' slippers—J. Kaerth, $3.
Two-horse family carriage—Carvill manufacturing compauy, diploma and $30.
One-horse family carriage—California carriage manufacturiug coupany, diploma and $25.
Top buggy—Carvill manufacturing company, diploma and $20.
Two-seated open carriage — Carvill manufacturiug company, $20.
Trotting wegon—To J. F. Hill.
Farm wagon for general use—To J. F. Hill.
Spring market wagon—To J. F. Hill.
Street goods wagon—California carriage manufacturing company, $5.
Carriage for children—To Richard Dale.
Assortment of carriage trimming and material—Waterhouse & Lester.
Carriage springs—California carriage manufacturing company (Dolan & Scherb spring), diploma and $10.
Display of carriage wheels, hubs, etc.—Waterhouse & Lester.
Exhibit of express wagons, farm wagons and carriages—J. F. Hill, of Sacramento, special prem recommended.
Best ladies' phaeton and best trotting buggy on exhibition—California carriage manufacturing company, special prem recommended.
Best open buggy on exhibition, Eastern manufacture—Studebaker Bros., special prem recommended.

Flowers.

Largest collection of flowering plants in bloom—F. A. Ebel, Sacramento, $25.
Collection of ornamental foliage plants—F. A. Ebel, Sacramento, $25.
Collection of new and rare plants—F. A. Ebel, Sacramento, $15.
Collection of roses in bloom—F. A. Ebel, $15.
Collection of fuchsias in bloom—F. A. Ebel, $15.
Collection of Australian plants—F. A. Ebel, $10.
Collection of plants suitable for greenhouse, conservatory and window culture—F. A. Ebel, $15.
Display of hanging baskets containing plants—Mrs. E. H. Williams, Sacramento, $10.
Display of bouquets—Mrs. E. S. Hart, Florin, $10.
Display of cut flowers—Mrs. E. S. Hart, Florin, $10.

Fine Arts.

Specimen of portrait painting in oil—W. R. Freeman, Sacramento, $25.
Landscape painting in oil—Norton Bush, San Francisco, $25.
Specimen of landscape painting, water color—Mrs. J. H. Lewis, Sacramento, $25.
Exhibition of photographs—J. A. Todd. Sacramento, $100.
Best exhibition of paintings by one artist—Norton Bush, San Francisco, $100.
Best painting by any exhibitor—W. R. Freeman, Sacramento, $50.
Collection of marble work—Aitkin & Luce, Sacramento, $75. Exhibition of sculpture, $25.
Painting in oil, by minors—George Redding, San Francisco, $20.
Painting in water color, by minors—Miss Fannie McClatchy, Sacramento, $20.
Specimen of engraving on wood—R. Phillips, Sacramento, $25.
The committee recommended that a special prem of $25 be awarded to Andrew P. Hill, of Oakland, Cal., for two landscape paintings in oil; and special mention of four paintings in oil by Wynne Woods, and two paintings in water colors by Miss Charlotte Thompson; also special mention of three crayon drawings by Chas. Thompson (all minors). Also that three prems be awarded to the pupils of Miss S. C. Bingay, as follows: Willie Osborn, Prentis Mastin and Wallace Terry. Also that special mention and prem be awarded to Johnson Bros. for crayon portrait of a lady. Special attention is called to two pictures of A. Nahl, of San Francisco—crayon of a horse and painting of birds in water colors—and they recommend that a special prem of $25 be awarded to said Nahl. Miss Emma Turner, of San Francisco, presents a display of colored photographs, for which special mention is recommended. The committee notice a painting by Master M. O. Loomis, of Sacramento, and would like to place it in the proper class as the second best painting in oil by a minor, and suggest that a suitable prem be given him. Honorable mention of an oil painting on glass by Miss Abbie A. Hill, of Sacramento. Miss Kate Allman, of Sacramento, best colored photograph, prem recommended. Hamilton & Jackson, artists, of San Francisco, most meritorious display of general pictures, prem of $50 recommended. Special meution of Heald's business college, of San Francisco, and Pacific business college, of San Francisco, and E. C. Atkinson's business college, of Sacramento. Special attention is called to four paintings by W. R. Freeman, of Sacramento, one painting of fruit, two flower pictures and one ideal picture, for which a special prem is recommendod.

Miscellaneous.

Display of California tobacco—O. A. Davis, $25 and silver medal.
Exhibit of hops—W. A. Haynle, $10.
For the most meritorious exhibition in the juveniie department, the committee awarded the Society's gold medal to Miss Carrie M. Taft.
Display of drugs, chemicals and perfumery, etc.—Kirk & Co., Sacramento, diploma.
Three wooden slat window shades—E. W. Brady, Davenport, Iowa, diploma.
Display of home manufactnred candies and candy work—W. F. Peterson, Sacramento, special prem or medal.
Display of mirrors—Whittier, Fuller & Co., San Francisco, diploma.
Best general display of confectionery, including foreign work—H. Fisher, Sacramento, special prem or medal.
Two mammoth cucumbers—P. Wetzell, Sacramento, special mention.
Display of ornaments of California wood—Mrs. R. W. Brehm, San Francisco, special prem.
Fancy cigar case or stand—Mrs. Henderson, San Francisco, diploma.
Glass bottle puzzle—Mrs. N. S. Allen, Sacramento, special mentiou.
Model of portfolio for engravings (California invention)—Mrs. R. W. Lewis, Sacramento, diploma.
Printed advertisement of domestic patterns—L. Bien, Sacramento, special mention.
Display of ornaments made of California wood—G. F. Atkinson, Sacramento, special mention.
Display of California manufactured shell jewelry—R. W. Jackson, San Francisco, special prem and diploma.
Specimen shell work—R. W. Jackson, San Francisco, $5.
Gilt Edge yeast powder—H. G. Bolsscller, Stockton, $5.
Display of blacking—Huntington, Hopkins & Co., Sacramento, $3.
Pottery, silver medal; roofing tile, $5; terra cotta, diploma; Rockingham ware, diplome; stone ware, diploma—Bergman Bros., Sacramento.
Display of California marble—Aitken & Luce, Sacramento, $20.
Exhibit of salt—Theo. Winters, Reno, Nev., $3.
Wm. Gwynn, Sacramento—Hydraulic cement, $5; lime, $5; pressed brick, diploma; fire brick, $3.
Dressed stone—Aitken & Luce, Sacramento, $5.
Aquarium of fishes—L. B. Mott, Jr., Sacremeuto, silver medal.
Lubricators (California inveution), machinery, oil, etc.—Huntington, Hopkins & Co., Sacramento, diploma recommended.
Axle grease—Pitcher & Palmer, Sacramento, diploma recommended.
Display of coals (California and other varieties)—Jacob Hoehn, Sacramento, diploma recommended.
Salamander felting company, Seward Cole, manager, San Francisco, diploma and special mention.
Display of glue—C. Weisel & Co., Sacramento, $5 and diploma recommended.
Guild & Church pianos—Special prem recommendcd.
Smith's organs—Special prem recommended.
Display of paper hangings and borders—C. H. Krebs, Sacramento, $5.
Electric machine—Fisk & Gill, Sacramento, diploma.
Breech-loading shotgun (California make)—A. Flohr, Sacramento, $5.
Sporting rifle (California make)—A. Flohr, Sacramento, $5.
Game-bag (California make)—A. Flohr, Sacramento, $3.
Surgical instruments—G. A. Stephenson, diploma.
Diploma and special attention recommended to R. Philip for display of die-sinking stencil, etc. Also, a diploma to J. P. Dixon for Dixon's retrieve brake; a diploma to Henry Eckhart for display of firearms. Also, recommended that a gold medal and diploma be awarded the National fire alarm telegraph company, Fisk & Gill, agents, Sacramento, for a specimen of the system. Also, recommended that a silver medal be awarded A. Flohr, Sacramento, for display of firearms, cartridge-carrier, shell loader, gun material and fishing tackle. Also, a diploma to A. S. Hallidie, of San Francisco, for fire extinguishers, and a diploma to H. C. Kira & Co., for display of drugs and perfumery.
Bleaching soap—Alta soap company, San Francisco, diploma.
Samples of paint (California make)—C. H. Krehs, Sacramento, $5.
Prussian blue—Whittier, Fuller & Co., $5.
White lead—Whittier, Fuller & Co., $5.
Jesse Healy & Co., of San Francisco—Pacific rubber paint, exhibited by Whittier, Fuller & Co., silver medal awarded.
Examples of paint as exhibited by I. L. Merrell & Co.—honorable mention.
Display of California minerals—Charles Allman, Sacramento, silver medal.
M. S. Hammer, Sacramento—Hammer's compound syrup glycerine of tar, diploma recommended.
Eugene Ruby—Display of cleansing soap, Alta Soap Co., San Francisco, box borax soap, diploma and special and honorable mention recommended.
F. M. Leaf & Co., Sacramento—California yeast cake, diploma and $5.
G. F. Atkinson, San Francisco—Smith Bros., chemical refined borax, $5 recommended.
Sample varnish—J. L. Chadderdon, San Francisco, $5 and diploma recommended for display; also, a diploma recommended for artist and finishing brushes, and a diploma and $5 recommended for wax flower material.
I. L. Merrill, Sau Francisco—diploma recommended for sample of asbestos from the Merrill mine, Placer county, California; also, a diploma recommended for steatitc roofing, soapstone pulverized, improved and pulverized talc and fire brick.
S. Cole, San Francisco—diploma recommended for samples of Eastern, Californian and Italian asbestos, and a premium of $5 recommended for his sample of asbestos material; and silver medal recommended for samples of steatite boiler and steam pipe covering.
Display of mechanics' tools—W. F. Palmer, San Francisco, $10.
Display of chandeliers and globes—Bush Bros., Sacramento, $10.
Display of home production of manufactured mechanics' tools—W. F. Palmer, San Francisco, diploma and silver medal recommended in addition to the premium offered.
Display of chandeliers and globes—Bush Bros., Sacramento, diploma recommended.
Display of garden and lawn wire work—A. S. Hallidie, San Francisco, diploma and silver medal recommended.
Family sewing machine—Wheeler & Wilson, San Francisco, medal and $100.
Special prem recommended to J. A. Stewart & Co., for best pleating machine; also, special mention of miniature steam engine for running sewing machines, exhibited by Samuel Hill (made by Ed. F. Verrill); and honorable mention of sewing machine attachments exhibited by D. W. Campbell, of Sacramento.

The Races.

The following list gives the successful horses and the time made in the different races during the fair:

Sept. 18th, 1876.—1st race: Running, Winters' stake, purse, $300, for three-year-old fillies. Mollie McCarty, 1st; Rosewood, 2d; time, 2:13.
Second race: Running, purse, $250, mile dash for two-year olds. Raiston, 1st; Mollie H. 2d; Centennial Belle, 3d; Lena Dunbar, 4th; time, 1:46.
Third race: Running, *Spirit of the Times* stake, purse, $300, mile heats for three-year-olds. Mollie McCarty, 1st; Ward Beecher, 2d; Elizabeth Tilton, 3d; time, 1:45¾, 1:45¾.
Sept. 19th, 1876.—1st race, trotting, purse, $1,200; 2:23 class. May Howard, 1st; St. James, 2d; George Treat, 3d; time, 2:31, 2:28½, 2.25½, 2:28, 2:23, 2:31¼.
Sept. 19th and 20th.—2d race: Trotting, purse, $500; 2 40 class. Sweetbriar, 1st; Hayward Chief, 2d; Lady Cummings, 3d; Beautiful Bells, 4th; time, 2:35¼, 2:30, 2:35½, 2:34½, 2:35½, 2:37.
Sept. 20th.—Running, free handicap, purse, $500; dash 1½ miles. Emma Skaggs, 1st; Lady Amanda, 2d; Bradley, 3d; Golden Gate, 4th; Queen Emma, 5th; Shannon, 6th; time, 2:40.
Running: Purse, $800, 2 mile heats for three-year-olds. Ward Beecher, 1st; Ballinetto, 2d; time, 3:41, 3:48, 3:55½.
Sept. 21st.—Purse, $300, 1 mile dash. Minnie Blackburn, 1st; Elizabeth Tilton, 2d; Jake, 3d; Omega, 4th; California, 5th; Sydney Burbridge, 6th; time, 1:46.
Trotting: Purse, $600, 2:36 class. Tommy Gates, 1st, Gladiator, 2d; Killie, Jr., 3d; Tom Morgan, 4th; time, 2:30¼, 2:32½, 2:31¼.
Trotting, *Spirit of the Times* stake, purse $300, mile heats for three-year-olds; Susie Brown 1st, Isaac 2d, Daisy C 3d; time, 2:42½, 2:45¾, 2:45.
Sept. 22d.—Running, selling race, purse $500, free to all. Emma Skaggs 1st, Elizabeth Tilton 2d, Vanderhilt 3d; time 1:47½, 1:48¾, 1:47¼.
Running: Purse $1 000, two mile heats, free to all. Bradley 1st, Gen. Sherman 2d, Nathan Coombs 3d, Woodbury 4th; time, 3:38½, 3:42½.
Sept. 23d.—Trotting, purse $800, 2:26 class; Lou Whipple 1st, Gov. Stanford 2d, Professor 3d; time, 2:30½, 2:30¾, 2:30¾, 2:32¾.
Second race: Trotting, purse $750, 2:31 class, Tommy Gates 1st, Sweetbriar 2d, Gen. Reno 3d, Lady Cummings 4th, Startle 5th, Muggins 6th, Hayward Chief 7th, Alameda Maid 8th, Red Cross 9th, American Maid, 10th, Long John 11th, Venture 12th; time, 2:31, 2:30¾, 2:29, 2:30½, 2:34.
Third race: Trotting, purse $1,250, 2:23 class, two mile heats. May Howard 1st, Professor 2d, Gold Note 3d, Jerome 4th; time, 5:05½, 5:09¼.

Agricultural Statistics.

We have frequently advocated the value of trustworthy statistics of agricultural production and the general importance of introducing into our agriculture more of the accuracy of deduction from figures which prevails so largely in the other industries. An intelligent study of figures will aid the farmer greatly in his selection of specialties of production; it will enable him to form better judgments of the probable courses of market prices; it will cultivate in the mind a manner of thought and ratiocination which will be valuable in the consideration of all matters of farm policy and economy. We are recalled to this subject by some earnest words which that sterling farmer, Dr. John Strentzel, of Martinez, writes in the last issue of the Contra Costa *Gazette*. He speaks especially of the figures compiled by the Surveyor General, but the remarks are equally applicable to the broad question of a better appreciation of mathematics in our agriculture. He says: "The succeeding 10 years closed by 1870 furnishes some statistical data showing the increased and varied production, as embraced in the county assessor's annual report to the State Surveyor General: However meager and incomplete those returns, they make us realize their great utility, and should impress every agriculturist with the necessity of individual effort to make them as complete and comprehensive as the protracted labor and multiplicity of duties of farm life will permit. The provision of law is beneficent and the officers are ready to comply, but the draw-back is by the very parties for whose benefit the work has been undertaken. The farmer, harassed by heavy taxes and the varied calls for a division of his hard-gotten fruits of labor, apprehends that any showing establishing his gains would be only a lever prompting action to increase his burden of taxation; many not accustomed to keeping regular business records think it would consume too much of their time; others, and a great majority, work without any intelligent forecast or positive knowledge of the forces in nature governing the growth of plants or animals, or the conditions required for their perfect development—with such it would be time wasted. Happily the improved methods of education and themes of instruction in our public schools, embracing the teaching of natural science in its varied conjunction and application to everyday life—nourish the instinctive desire in the breast of every child after knowledge regarding the growth of plants, the sources of animal life and the true bases of all agricultural development—thus the growing generation will not only be imbued with the formerly decried "book larning," but also with the knowledge how to apply practically the working of nature to promote our welfare. These will not only realize the utility, but the utmost necessity of compiling such information as indispensable to profitable and rational culture, and that this can only be accomplished by the union of earnest individual efforts."

A Rural Visit.—We had a pleasant ride with Dr. W. S. Manlove and family from Sacramento to their spacious home in Brighton last week. The Doctor's ranch embraces over 300 acres of fine land, near the American river, about seven miles from the State capitol. His mansion is one of the fair-square kind, built like our old Eastern homes out of "real timber," brought by his own teams from Grass Valley. With a kind welcome and good home-made fare we were made very happy, and almost wished we had been an old '49-er, settled down on a good farm with such nice surroundings, instead of having so many newspapers and other heavy cares on our weak shoulders. Doctor M. has a large and thrifty vineyard, with a great variety of choice grapes, many of which he sells in Sacramento for table use; others he turns into first-class raisins, and the balance are sold for wine. Some of the finest apples exhibited at the State fair were from his orchard. We were much interested in finding here several algaroba trees cultivated from seeds we furnished the Doctor several years ago. They were growing finely, and are the first we have heard of being raised from seed which we distributed. He has splendid specimens of fig, magnolia and other ornamental trees surrounding his mansion.

Woodward's Gardens embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

E. N Freshman & Bros., advertising agents, 186 W. Fourth St., Cincinnati, O., are authorized to contract for advertising in this paper. Estimates furnished free. Send for a circular.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

San Francisco, Wednesday, Sept. 27th, 1876.

The week has developed a slight advance in the local rates for shipping Wheat, the quotation being now $1.55 for choice. Otherwise the trade has been without notable features, except as noted below under special products.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	Cal. Average.	Club.
Thursday	9s 8d@ 9s 10d	9s 11d@10s 1d
Friday	9s 8d@ 9s 11d	9s 11d@10s 1d
Saturday	9s 8d@ 9s 11d	9s 11d@10s 1d
Monday	9s 8d@ 9s 11d	9s 11d@10s 1d
Tuesday	9s 8d@ 9s 11d	9s 11d@10s 1d
Wednesday	9s 8d@ 9s 11d	9s 11d@10s 1d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	10s —@10s 4d	10s 4d@10a 9d
1875	10s 8d@11s —	11s —@11s 5d
1876	9s 8d@ 9s 11d	9s 11d@10s 1d

The Foreign Review.

Under date of September 25th, the *Mark Lane Express* says: Much English Wheat has come to market in a more or less damp condition, but the change to drier weather will now enable threshing to proceed under more favorable circumstances. The agricultural season being far advanced, attention is now meinly directed to the ingathering of cereals in Scotland, where the state of the out-standing crops has caused for some time past no little anxiety. The rain has done wonders for the root crops and pastures. The publication of agricultural returns for 1875-76 enables us to form a reliable idea as to the yield of the home crops and the extent to which we shall be dependent upon foreign supplies. These returns show a decline in the area of Wheat planted of 378,000 acres from last year, and of 678,000 acres from the average area planted during the eight years previous to 1875. The decline from last year, however, may be made up on the increased yield per acre and improved condition. The yield of the present crop is estimated at 10,600,000 quarters; with 800.000 quarters deducted for seed, there will remain 9,800,000 quarters for consumption. England will require the coming year about 13,000,000 quarters. Because of the deficiency in the home supply, much interest is centered in the American crop. The week closes with the local trade very steady, but without animation, as buyers are acting with much caution. The supply and demand at this moment are pretty evenly counter-balancing each other. While Wheat has realized an occasional advance of a shilling per quarter, the inquiry has not been brisk. Feeding stuffs are held firmly. Barley, Oats and Maize have improved in price. By the cargo, trade is quiet but steady, and Melze continues firm, while in some cases rather higher prices have been obtained.

Freights and Charters.

The week has recorded an unusual [illegible] extent of business in charters for Wheat. The Post says: "Each day seemed to bring more engagements, while rates have been remarkably firm. The list of disengaged tonnage in port has been reduced to 24,906 tons, as against 27,659 tons last week, and in the face of free arrivals from all quarters. We have now 75 vessels, aggregating 95,249 tons in port secured to load Wheat. We now quote Al ships to Liverpool direct at £3 2s. 6d, and to Cork, for orders, £3 5s."

Eastern Wool Markets.

New York, Sept. 24th.—There has been a fair demand for Wool this week; but business is restricted, owing to general light supplies and extreme views of holders. The Goods market continues quite active, and manufacturers have visited the city in large numbers; but in most instances their purchases of raw material have amounted to lots sufficient only for a few days' consumption. Sales for the week are, 711 bales Cape, for export to Canada, at 16½c., gold; 137 do. Australian, 45c.; 11,000 lbs. Mexican, 17½c.; 293, 000 do. Spring California, at 17@19c. for burry and slightly do., and 20@26½c. for free; 30,000 do. new Fall do., 16@21c.; 25,000 do. Colorado, 18@20c.; 10,500 do. Oregon combing, 30c.; 30,000 do. Western Texas, 16½@23c.; 63 000 do. Eastern do., 18@23c.; 50,000 do. washed Ohio XX, 43½c.; 18,000 do. unwashed do., 28c.; 10,000 do. Michigan, 36c.; and 256 bales washed Donskoi, 58 do. Mediterranean, 18 do. Rio Grande, 46 do. Cape, 60,000 lbs. mixed California, 10,000 do. Oregon, 40,000 do. Utah, 115 bags No. 1 pulled, 5 do. old exirs, 50 do. short do., 16 do. lambs do., 14,000 lbs. X and above Ohio fleeces, 23,000 do. combing and delaine do., and 25,000 do. Wisconsin, on private terms.

Boston, Sept. 23d.—Transactions in wool begin to show a falling off compared with previous weeks, but the business of the week has been fully up to expectation. Stocks of desirable kinds are rapidly disappearing. The demand for fine fleeces is still quite active. The demand for California continues good. New Wool is now coming forward freely. There have been sales of 310,000 lbs. at prices ranging from 16c. to 20c. Spring Wool is still in demand, but there is now a small assortment to select from. Sales comprised 322,000 lbs. at 15@30c. for poor to good. In pulled, very little has been done. Sales comprise 80,000 lbs. at 32½@42c. for super and X; the latter for choice Maine super.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week Sept. 6.	Week Sep. 13.	Week Sept. 20	Week Sept. 27
Flour, quarter sacks	71,075	52,935	61,731	55,198
Wheat, centals	497,684	485,636	394,552	387,481
Barley, centals	52,170	54,196	68,994	60,354
Beans, sacks	488	2,326	283	2,766
Corn, centals	1,615	1,875	2,454	2,071
Oats, centals	5,096	12,162	15,611	9,255
Potatoes, sacks	15,360	19,331	20,300	15,292
Onions, sacks	1,539	1,318	768	1,223
Wool, bales	3,668	4,795	5,079	6,610
Hops, bales	280	446	435	717
Hay, bales	2,940	2,139	2,575	2,093

Bags—The reputed combination is still holding Wheat Bags firmly, and claim to be disposed to hold over rather than knock down. Outside dealers are selling at our quotations. It would probably be difficult to get large lots at the lower figure.

Barley—The Eastern demand for brewing Barley continues and bids fair to relieve us of our surplus. The Eastern crop is reported small and poor, and the superiority of the California Barley both in quality and price is one of the hopeful indications of the season. We note sales of Barley as follows: 1,325 sks Coast Feed at 95c, silver; 456 do bright do, 95c, gold; 400 sks Coast Feed, 90c, silver; 250 sks good Coast at 92½c; 600 sks Coast Feed at 90c; 225 do do, 92½c; 250 do Bay do, 95c, all silver; 300 do do, half silver; 4,000 ctls Chevalier, $1.37½, gold; 12,000 do Bay Brewing, $1.05@1.10, gold, to a brewer, part delivered, the remainder to lay in the country till needed.

Beans—Several kinds are lower, as quoted below.

Corn—Corn is dull and unchanged in price.

Dairy Produce—Prices are unchanged. Large quantities of pickled roll and packed Butter are still coming forward.

Eggs—Eggs range from 40@45c, as last week.

Fruit—Fruit is showing signs of improvement for some kinds. Peaches and Bartlett Pears are higher. Grapes are bringing a little better prices.

Hops—Hops are held at an advance and the outlook is promising. We note sales of 60 bales at 25c. Good Hops are being held above the market, 26c being refused in some cases.

Oats—Oats are weak and quiet. We note sales: 300 sks dark Coast Feed, $1.35; 100 do, $1.40; 150 do do, $1.47½, all silver; 500 do Milling, $1.75 ₱ ctl, half silver.

Onions—Onions are unchanged.

Potatoes—Potatoes show some slight variation in prices, which are noted in our quotations. The market is dull.

Poultry—Hens sell a little better. Other kinds are unchanged.

Provisions—Fresh Beef and Pork are weaker in tone. The demand is active, but the supply seems adequate. Mutton is unchanged. The trade in cured meats is active.

Rye—Rye is unchanged.

Vegetables—The green vegetables are advancing a little. Full prices may be found in our tables.

Wheat—The Market has been active, and a slight advance is noted. The great mass of the sales are accomplished in the interior. Sales in this city are as follows: 210 sks slightly smutty at $1.37½; 2,000 ctls shipping, $1.47½; 2,500 sks do, $1.52½; 600 sks ordinery shipping, $1.45; 2,600 do good do, $1.50; 8,000 do extra choice do, $1.55 ₱ ctl.

Wool—Transactions during the week occasion an advance in our quotations for all descriptions. One firm has sold 280,000 lbs, at prices given in our tables. The Eastern markets are reported by telegraph in another column.

DOMESTIC PRODUCE.

[WHOLESALE.]

Wednesday M., Sept. 27, 1876.

BEANS.

Bayo, ₱ ctl	1 75@2 00
Butter	1 50@2 12½
Pea	1 92½@ —
Pink	2 25@2 50
Sm'l white	1 60@1 75
Lima	1 75@1 90

BROOM CORN.

Common, ₱ lb	2 @ 3
Choice, do	4 @ 5

COTTON.

Cotton, ₱ lb	15 @ 18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	42½@ 45
Point Reyes	45 @ 47½
Pickle Roll	32½@ 35
Firkin	25 @ 30
W'st'n Reserve	16 @ 25
New York	— @ —

CHEESE.

Cheese, Cal., lb	10 @ 15
do Old	— @ —
Eastern	12½@ 15

EGGS.

Cal. fresh ₱ doz	40 @ 45
Ducks'	40 @ —
Oregon	37½@ —
Eastern	21 @ 30

FEED.

Bran, per ton	16 00 @ —
Corn Meal	28 00 @ —
Hay	7 00 @13 50
Middlings	24 00 @ —
Oil cake meal	— @33 50
Straw, ₱ bale	55 @ 60

FLOUR.

Extra ₱ bbl	4 50 @5 00
Superfine	4 00 @4 25
Graham, ₱ bbl	4 75 @ —

FRESH MEAT.

Beef 1st quality lb	6 @ 7½
Second do	5 @ 5½
Third do	3½@ 4
Mutton	3½@ 4
Pork, undressed	6½@ 6½
do, dressed	9 @ 9½
Veal	5½@ 6
Milk Calves	5½@ 7

GRAIN, ETC.

Barley, feed ctl	80 @ 1 00
do brewing	1 00 @ 1 10
Chevalier	1 30 @ 1 40
Corn, White	1 20 @ 1 22½
do Yellow	1 17½@ 1 20
Oats	1 40 @ 1 60
Milling	1 70 @ 1 75
Rye	1 50 @ 1 55
Wheat shipping	1 50 @1 55
do milling	1 55 @1 60

HIDES.

Hides, dry	13 @ 14½
do wet salted	5½@ 7

HONEY, ETC.

Beeswax, per lb	25 @ 30
Honey in comb	10 @ 12½
do Strained	6 @ 8

HOPS.

New crop	22 @ 26

NUTS—Jobbing.

Alm'ds h'rd sh'l lb	8 @ 10
do, soft sh'l	18 @ 20
Brazil do	14 @ 16
Cal. Walnuts	12 @ 14
Chile Walnuts	11 @ 12½
Pecanuts	17 @ 18
Peanuts per lb	8 @ 9
Filberts	15 @ 16

ONIONS.

Union City ctl	— @—
Stockton	50 @— 65
New Red	50 @— —
Silver Skins	50 @— 65

POTATOES.

Petaluma, ₱ ctl	— @ —
Salt Lake	— @ —
Humboldt	— @ —
Half Moon bay	75 @ 90
Cuffey Cove	1 05 @1 07½
Early Rose new	50 @a 75
Sweet	75 @1 00

POULTRY & GAME.

Hens, per dz	7 50 @9 00
Roosters	5 00 @6 50
Broilers	3 50 @4 50
Ducks, tame, dz	7 00 @8 00
do Muscovy	8 00 @9 00
do Canvass	— @8 00
Geese, per pair	2 00 @2 50
Wild Gray dz	3 00 @4 00
White	1 50 @2 00
Turkeys, Live, lb	15 @ 16
do Dressed	20 @ 22
Quail, per doz	— @ —
Snipe, Eng., doz	— @— —
Doves, per dozen	50 @ 57
Rabbits	1 00 @1 50
Hare, per doz	2 00 @3 00
Venison lb	7 @ 10

PROVISIONS.

Cal. Bacon, L't, lb	16 @ 17
do Medium	15½@ 16
do Heavy	— @ 15½
Lard	14 @ 16½
Cal. Smoked Beef	12½@ 14
Eastern do	— @ —
East'rn Should's	— @ 12
Hams, Cal	15 @ 15½
do Armour	— @ 17
do Worster's	19 @ 19½
do Dupee's	19 @ 19½
do Davis Bros'	19 @ 19½

SEEDS.

Alfalfa, Chile lb	8 @ 10
do California	11 @ 12
Canary	9 @ 10
Clover Red	— @ 22
do White	50 @ 55
Cotton	6 @ 10
Flaxseed	— @ 3½
Hemp	12½@ —
Italian Rye Grass	25 @ 30
Perennial do	20 @ 30
Millet	10 @ 12
Mustard, white	5 @ 6
do. Brown	3 @ 3½
Rape	5 @ 8
Ky. Blue Grass	30 @ —
do 2d quality	20 @ —
Sweet V Grass	— @ 75
Orchard do	30 @ 35
Red Top do	— @ 25
Hungarian do	8 @ 12
Lawn do	50 @ —
Mesquit do	20 @ 25
Timothy	10 @ 13

TALLOW.

Crude, ₱ lb	6¼@ 6½
Refined	8¾@ 9

WOOL, ETC.

FALL—

Free	12 @ 14
Choice	14 @ 16
Northern	17 @ 20
Burry	10 @ 13
Oregon Eastern	24 @ —
do Valley	25 @ —

LUMBER.

CARGO PRICES OF REDWOOD.

Rough, ₱ M	$18 00
Rough refuse, ₱ M	14 00
Rough clear, ₱ M	30 00
Rough clear refuse, M	20 00
Rustic, ₱ M	32 50
Rustic, refuse, ₱ M	22 50
Surfaced, ₱ M	30 00
Surfaced refuse, ₱ M	20 00
Flooring, ₱ M	28 00
Flooring, refuse, ₱ M	18 00
Beaded flooring, ₱ M	30 00
Beaded floor, refuse, M	20 00
Half-inch Siding, M	20 00
Half-inch siding, ref, M	16 00
Half-inch, Surfaced, M	25 00
Half-inch Surf. ref., M	20 00
Half inch Battens, M	20 50
Pickets, rough, ₱ M	1 00
Pickets, rough, p'ntd	13 00
Pickets, fancy, p'ntd	26 00
Shingles, ₱ M	35 00

PUGET SOUND PINE —Retail Price.

Rough, ₱ M	22 50
Fencing, ₱ M	22 50
Flooring and Step, ₱ M	32 50
Flooring, narrow, ₱ M	35 00
Flooring, 2d quality, M	25
Laths, ₱ M	3 50
Furring, ₱ lineal ft	—¾

REDWOOD—Retail.

Rough, ₱ M	22 50
Rough refuse, ₱ M	18 00
Rough Pickets, ₱ M	18 00
Rough Pickets, p'd, M	20
Fancy Pickets, ₱ M	30
Siding, ₱ M	25 00
Surfaced and Long Beaded	37 50
Flooring	35 00
Do do refuse, ₱ M	25 00
Half-inch surfaced, M	32 50
Rustic, No. 1, ₱ M	40 00
Battens, ₱ lineal foot	—¾
Shingles ₱ M	3c

GENERAL MERCHANDISE.

WHOLESALE.]

Wednesday M., Sept. 27, 1876.

BAGS.

Eng. Stand Wht	11½@12
Neville & Co's—	
Hand Sewed	11½@12
24x36	— @—
24x40	— @—
Mechine do 24x40	— @15½
" " 23x40	14½@—
" " 22x40	13 @—
" " 22x36	11½@12
Flour Sacks, ½s	9 @11
" " ¼s	6 @ 7
" " ⅛s	4½@ 5
Hessian 60-in	12¼@14½
do 45-in	10 @—
do 40-in	8½@—
Wool Sacks, 3½ lbs	45 @50
do 4 "	50 @52½
Stand. Gunnies	11½@12
single seem do	— @—
Bean Bags	7 @ 8

CANNED GOODS.

Ass't'd Pie Fruits in 2½ lb cans	2 75 @ 3 00
do Table do	3 75 @ 4 25
Jams & Jellies	1 25 @ —
Pickles ½ gl	— @ 3 50
Sardines, qr box	1 65 @ 1 90
do hf boxes	3 00 @ —

COAL—Jobbing.

Australian, ₱ ton	8 75 @ 9 00
Coos Bay	— @ 9 00
Bellingham Bay	— @ 9 00
Seattle	— @ 9 00
Cumberl'd	14 00 @16 00
Mt. Diablo	5 75 @7 75
Lehigh	— @22 00
Liverpool	8 50 @10 00
West Hartley	— @14 00
Scotch	9 00 @10 00
Scranton	13 00 @16 00
Vancouver's Isl	10 50 @12 00
Charcoal, ₱ sk	75 @ —
Coke, ₱ bbl	— @ 60

COFFEE.

Sandwich Island	— @ 21½
Costa Rica per lb	20½@ 21
Guatemala	— @ 20
Java	— @ 25
Menilla	— @ 19
Ground in cs	25 @ —
Unicorn	27 @ —

FISH.

Sea. Dry Cod, new	5½@ 6½
cases	6 @ 7½
do boneless	8½@ 10
Eastern Cod	8 @ 9½
Salmon in bbls	6 50 @7 25
do ½ bbls	3 75 @4 00
do 2lb cans	2 40 @—
do 1lb cans	1 50 @—
do Col. R. ½lb	4 25 @4 50
Pick. Cod, bbls	22 00 @—
do ½ bbls	11 00 @—
Mack'l, No. 1, ½bls	11 00 @—
" Extra	— @12 00
" in kits	1 90 @2 25
" Ex mess	3 50 @4 00
" Ex mess, ½bs	—@12 00
Pio'd Herr'g, bx	3 00 @ 3 50
Bos. Sm'k'd Her'g	40 @ 50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl	2 00@ 2 25
Cement, Rosendale, do	2 75@ 3 50
do Portland do	4 75@ 5 50
Plaster, Golden Gate Mills	3 00@ 3 25
Laod Plaster, ₱ ton	10 00@12 50

MISCELLANEOUS.

Putu	@ 7½

NAILS.

Assorted size, keg	3 75 @4 00

OILS.

Pacific Glue Co	
Neat F't No. 1	1 00 @ 90
Pure	— @— —
Castor Oil, No. 1	— @ 95
Baker's A A	— @1 15
Cocoanut	— @ 60
Olive Plagniol	5 50 @5 75
do Possel	4 75 @5 00
Palm lb	9 @— —
Linseed, raw	— @ 62½
do boiled	— @ 61½
China nut in os.	65 @— —
Sperm, crude	1 60 @1 65
do bleached	1 90 @2 25
Coast Wheles	47½@ 50
Polar, refined	— @ 50
Lard	— @1 20
Oleophine	— @ 37
Devoe's Bril't	38 @ 39
Long Island	— @ 25
Eureka	26 @ 27
Devoe's Petro'm	— @ 42½
Barrel kerosene	23 @ 25
Olive	— @3 50
Downer Kerose'e	— @ 37½
Elaine	— @ 42
Gas Light Oil	23 @ 25

PAINTS.

Pure White Leed	9¾ @10¼
Whiting	— @ 1¾
Putty	4 @ 5
Chalk	— @ 1½
Paris White	— @ 2½
Oohre	— @ 3½
Venetian Red	— @ 3½
Red Lead	10 @ 11
Litharge	10 @ 11
Eng. Vermillion	—@1 25
Averill Chemical Paint, per gal	
White & tints	2 00 @2 40
Green, Blue & Ch Yellow	3 00 @3 50
Light Red	3 00 @3 50
Metallic Roof	1 30 @1 60

RICE.

China No. 1	1¼@ 5½
Hawaiian, ₱ lb	7½@ 8
Carolina, ₱ lb	10 @ —

SALT.

Cal. Bay, per ton	10 00@14 00
do Common	5 00@ 7 00
Carmen Island	12 00@15 00
Liverpool fine	13 50@14 00

SOAP.

Castile ₱ lb	10 @ 10½
Common brands	4½@ 6
Fancy do	7 @ 8

CANDLES.

Grant's	16 @ 16½
Mitchell's	18 @ 20

SPICES.

Cloves ₱ lb	45 @ 47½
Cassia	23½@ 26½
Citron	28 @ 30
Nutmeg	95 @ 97½
Whole Pepper	14½@ 14½
Pimento	16 @ 17½
Gr'nd Allsp'rd	— @1 12
do Cassia do	— @1 50
do Cloves do	— @1 50
do Mustard do	— @1 20
do Ginger do	— @1 00
do Pepper do	— @1 00
do Mace do	— @2 00
Bowen's Pure Ground ₱ lb	— @ 50

SUGAR, ETC.

Cal. Cube per lb	— @ 12¼
Circle A crusned	— @ 12
Powdered	— @ 12¼
Fine crushed	— @ 12
Granulated	— @ 11½
Golden C	— @ 10½
Hawaiian	10 @ 11
Cal. Syrup in kgs	— @ 62½
Hawaiian Molasses	25 @ 27½

TEA.

Oolong, Canton, lb	19 @ 25
do Amoy	28 @ 50
do Formosa	40 @ 80
Imperial, Canton	25 @ 40
do Pingsuey	45 @ 80
do Moyune	60 @1 00
Gunpo'der, Cant	75 @1 00
do Pingsuey	50 @ 90
do Moyune	65 @1 25
Yung Hy., Canton	28 @ 40
do Pingsuey	40 @ 70
do Moyune	65 @ 87
Japan, ½ chests, bulk	30 @ 75
Japan, lacquered bxs, ½s and 5 lbs	45 @ 67
Japan do, 3 lb bxs	45 @ 90
do pl'n bx, 4½ lb	35 @ 65
do ½ & 1 lb paper	30 @ 55

TURPENTINE.

Eastern	51½@55

FRUITS AND VEGETABLES.

[WHOLESALE.]

Wednesday M., Sept. 27, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M	— —@— —
Tahiti, do	30 00@35 00
Cal. do	— —@— —
Limes, Mexican, ₱ M	10 00@12 50
Malaga Lemons, ₱ bx	— —@— —
Cal. ₱ 100	2 00@ 2 50
do Sicily ₱ b'x	15 00@— —
Bananas, ₱ bnch	2 00@ 3 00
Cocoanuts, ₱ 100	6 00@ 7 00
Pineapples, ₱ doz	— @— —
Apples, ₱ box	50 @1 00
do Choice	— @1 10
Apricots, lb	— @— —
Blackberries cse	— @— —
Cherries ₱ lb	— @— —
Plums lb	2 @ 3
Prunes lb	2 @ 4
Figs	6 @ 8
Gooseberries	— @— —
Huckleberries	— @— —
Strawber's ₱ cs	5 00 @7 00
Pomgranates	— @— —
Raspberries	— @— —
Currants, ₱ cs	— @— —
Cranberries bbl	13 00 @14 00
Peaones, ₱ lb	5 @ 9
Pears, ₱ bx	50 @1 00
do Choice	2 00 @2 50
Crab apples, ₱ lb	2 @ 3
Grape- ₱ box	37½@ 50
Rose of Peru	50@ 75
Muscat	50@1 00
Sweetwater	40@ 60
Black Hamburg	50@ 75
Tokay	50@ 75
Morocco	1 00@1 25
Quinces	75@1 00

DRIED FRUIT.

Apples, ₱ lb	4 @ 7
Pears, ₱ lb	7 @ 10
Peaches, ₱ lb	5 @ 7
Apricots, ₱ lb	10 @12½
Plums, ₱ lb	3 @ 4
Pitted, do ₱ lb	12 @13
Raisins, imported	3 25 @3 75
Cal. Raisins	5 @ 10
Black Figs, ₱ lb	5@7
White, do	12½@15
Prunes	12½@17
Citron	28 @ 30
Zante Currants	9 @ 10

VEGETABLES.

Asparagus ₱ lb	15 @—
Beets ₱ ctl	—@75
Cabbage, ₱ 100 lbs	50 @ 60
Carrots, ₱ 100 lbs	50@ 62½
Cauliflower, doz	50@ 62½
Celery, doz	50 @—
Garlic, ₱ lb	2½@ 3
Green Peas ₱ lb	— @ 2½
Green Corn ₱ doz	12½@15
Sum'rSquash ₱ box	50 @60
Marro'fat Squs, tn	10 00@—
Artichokes, ₱ doz	— @—
String Beans, ₱ lb	2 @ 2½
Lima Beans	3½@ 4
Parsnips	— @—
Shell Beans	1½@ 2
Peppers, green, bx	40 @60
Okra	6 @ 7
Cucumbers, ₱ box	30@ 40
Tomatoes, box	25@ 50
Egg Plant, box	1 25@1 50
Rhubarb box	—@—
Lettuce, doz	10 @ —
Turnips, pr ctl	50@ 62½
Watermelons doz	75@1 25
Canteloupes do	1 00@1 50

LEATHER.

[WHOLESALE.]

Wednesday M., Sept. 27, 1876.

Sole Leather, heevy ₱ lb	25@29
do do light ₱ lb	20@25
Jodot, 8 Kil., per doz	48 00@ 50 00
Jodot, 11 to 13 Kil., per doz	68 00@ 79 00
Jodot 14 to 19 Kil., per doz	82 00@ 94 00
Jodot, second choice, 11 to 16 Kil. ₱ doz	57 00@ 74 00
Cornellian, 12 to 16 Ko	57 00@ 67 00
Cornellian Females, 12 to 13	62 00@ 67 00
Cornellian Females, 14 to 16 Kil	71 00@ 76 50
Simon Ullmo Females, 12 to 13, Kil	58 00@ 62 00
Simon Ullmo Females, 14 to 15, Kil	66 00@ 70 00
Simon Ullmo Females, 16 to 17, Kil	72 00@ 74 00
Simon, 18 Kil., ₱ doz	61 00@ 63 00
Simon, 20 Kil. ₱ doz	65 00@ 67 00
Simon, 24 Kil. ₱ doz	72 00@ 74 00
Robert Calf, 7 and 9 Kil	35 00@ 40 00
French Kips, ₱ lb	1 00@ 1 15
California Kip, ₱ doz	40 00@ 48 00
French Sheep, all colors, ₱ doz	8 00@ 15 00
Eastern Calf for Backs, ₱ lb	1 00@ 1 25
Sheep Roans for Topping, all colors, ₱ doz	9 00@ 13 00
Sheep Roans for Linings, ₱ doz	5 50@ 10 50
California Russett Sheep Linings	7 50@ 4 50
Best Jodot Calf Boot Legs, ₱ pair	5 00@ 5 25
Good French Calf Boot Legs, ₱ pair	4 00@ 4 75
French Calf Boot Legs, ₱ pair	4 00@ —
Harness Leather, ₱ lb	24@ 32½
Fair Bridle Leather, ₱ doz	48 00@ 72 —
Skirting Leather, ₱ lb	33@ 37½
Welt Leather, ₱ doz	30 00@ 50 00
Buff Leather, ₱ foot	17@ ⅛
Wax Side Leather, ₱ foot	17@

S. F. RETAIL MARKET RATES.

Wednesday M., Sept. 27, 1876.

POULTRY, GAME.

Chickens	50 @1 25
Eggs, Hens	— @ 50
do Ducks'	— @ 40
Turkeys, ₱ lb	25 @ —
Ducks, each	1 00 @ —
Geese, wild, pair	— @ —
Tame, ₱ pair	1 50 @2 00
Snipe, ₱ doz	— @ —
do English	— @3 00
Quail, per dozen	— @ —
Prairie Ch'k s, pr	— @ —
Hares, each	25 @ 35
Rabbits, pair	37 @ —
Squirrels each	10 @ —
Hems, Cal. ₱ lb	16 @ 20

FISH, MEATS, ETC.

Flounder, ₱ lb	30 @ —
Salmon, ₱ lb	— @ 15
Smoked	— @ 10

FRUITS, VEGETABLES.

Apples, pr lb	5 @ 8
Peers, per lb	5 @ 8
Apricots, lb	5 @ 8
Peaches, lb	4 @ 6
Plums	4 @ 10
Pine Apples, each	50 @ 75
Grapes	6 @ 20
Bananas, ₱ doz	50 @— —
Muskmelons each	15 @ 35
Watermelons	25 @ 50
Bleckberries	12 @ 15
Cal. Walnuts, lb	20 @ 30
Cranber'es, Org., do Eestern qt	— @ 20
Huckleberries	— @ 25
Strawberries, lb	12 @ 15
Raspberries, lb	20 @ 25
Mushrooms, ₱ lb	— @—
Currants	4 @ 5
Cherries, ₱ lb	10 @ 30
Nectarines	10 @ 12
Pomegranates	— @—
Oranges, ₱ doz	50 @1 25
Lemons	75 @1 00
Limes, per doz	— @ 25
Figs, dried Cal	12½@ 15
Figs, Smyrna, lb	25 @ 35
Asparegus, lb	6 @ 8
Artichokes, doz	25 @—
do Jerusalem	— @—
Beets, ₱ doz	20 @ 25
Potetoes, ₱ lb	2 @ 3
Potatoes, sweet	8 @ 10
Broccoli, each	10 @ 15
Cauliflower	10 @ 15
Cabbage, per hd	10 @—
Oyster Plant, bn	— @ 10
Carrots, ₱ doz	— @ 25
Celery, ₱ dz	75 @1 00
Cress, ₱ doz bun	20 @ 25
Onions	2 @ 3
Turnips, ₱ doz bunches	— @ 25
Brussels Sprouts	— @—
Eschelots	— @ 35
Dried Herbs, doz	30 @—
Gerlic ₱ lb	10 @—
Green Corn, doz	20 @ 50
Lettuce, ₱ doz	25 @ 35
Mint, ₱ bunch	— @ 12½
Horse radish, ₱ lb	15 @ 20
Okre, dried, ₱ lb	— @—
Pumpkins, ₱ lb	5 @ 6
Persnips, doz	— @ 25
Parsley	12½@ —
Pickles, frsh, ₱ lb	— @—
Radishes, doz	20 @ 25
Sege	— @ 25
Summer Squash	3 @ 5½
Marrowfat, do	5 @—
Huhberd, do	— @—
Tomatoes lb	4 @ 8
Mangoes, ₱ doz	— @—
Spinage ₱ bskt	— @ 12
Rhuberb	4 @ 6
Green Chilies	— @ 25

METALS.

[WHOLESALE.

Thursday, M., Sept. 28, 1876.

American Pig Iron, ₱ ton	32 00 @ — —
Scotch Pig Iron, ₱ ton	31 50 @ 32 00
White Pig, ₱ ton	40 00 @ 50 00
Oregon Pig, ₱ ton	31 50 @ 32 50
Refined Bar	— — @ — 4¼
Boiler, No. 1 to 4	— — @ — —
Plete, No. 5 to 9	— — @ — 5½
Sheet, No. 10 to 14	— — @ — 5¾
Sheet, No. 16 to 20	— 5¼@ — —
Sheet, No. 22 to 24	— 6 @ — —
Sheet, No. 26 to 28	— 6¾@ — —
Horse Shoes, per keg	7 00 @ 8 50
Nail Rod	— 10 @ — —
Norway Iron	— 8½@ — 9½
Rolled Iron	— 4 @ — 8
Other Irons for Blacksmiths, Miners, etc.

Lands and Homes for Sale.

IMPROVED FARMS FOR SALE

In CAPAY VALLEY, YOLO CO.,

WITHIN ONE MILE OF THE TOWN OF CAPAY, THE PROPOSED TERMINUS OF THE VACA VALLEY RAILROAD, 16 MILES WEST OF WOODLAND.

One Farm, containing 280 acres of choice valley and hill land, good house, barn, granary, etc., and well fenced. Price, $7,000.

One farm adjoining of 100 acres; good house, barn and outbuildings, young orchard—well watered; Cache creek, a never failing clear mountain stream, running through both farms. Price, $3,000.

Also, **Town Lots in Capay**, soon to be the center of trade and railroad depot for the western and northwestern portion of the county, and also for the quicksilver mines of Lake and Napa counties. Price, $50 to $150 per lot.

TERMS:

One-Half Cash. Balance Secured by Mortgage.

J. W. ALDRICH, Capay, Yolo Co.

FOR SALE,

In Lots to Suit,

5,000 Acres of the Lake Vineyard Land and Water Association.

These lands are in the great fruit belt of Los Angeles County,—only six miles from the city are peculiarly adapted to semi-tropical fruits, and adjoin the famous Lake Vineyard of Hon. B. D. Wilson. The Southern Pacific railroad runs through the land; convenient to schoolhouse and church; water in abundance, and the water-right is sold with the land. Title perfect. A Map of the tract may be seen at the office of Mayor Beaudry, on Spring street, opposite City Council rooms. References may be made to Hon. B. D. WILSON or J. DE BARTH SHORB, at Lake Vineyard, who will take pleasure in showing the lands. Also, to Mayor BEAUDRY or D. FREEMAN, Los Angeles city.

A RARE CHANCE.

FOR SALE—My Poultry Business, with my Farm of 115 acres; 22 acres of Vineyard and Orchard; House of 10 rooms; Barns; Granaries; 30 Chicken houses.

Receipts between $3,000 and $4,000 a Year,

Fully proved to the purchaser. Farm Implements, Wagon, Horses, Cows, etc., with Poultry (value over $3,000) included. **Price, $12,000,** one-half cash. Or I will sell a Half Interest and continue the business in partnership—the purchaser to reside on the place. Address,



M. EYRE, Napa, Cal.

In view of above I offer a few fine Fowls, Bronze Turkeys, etc. (not included in breeding pens and stock sold with farm), at reduced prices.

FARM FOR SALE.

160 Acres of Land, near the town of Linden, all in cultivation; fenced with a three-board fence; good house of eight rooms; young orchard and vineyard in bearing. Price, $50 per acre. Part of the price may remain on mortgage if desired. Address,

JAMES DRACE, Linden, Cal.

Seedsmen.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

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CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

Stockton, Cal.

The GORHAM SEEDER AND CULTIVATOR COMBINED



No Other Machine Presents such an Array of Useful Devices, and, taken together, they Constitute the Gorham Seeder a Machine Distinct and Separate from all others of its Class.

We Ask all Those in Want of a Seeder to Call upon us and Give our Machine a Thorough Examination, or Write Directly to Us.

We can produce single testimonials that would fill this page, claiming for it a reputation as broad as its use is extensive. Among the hundreds who have used them we refer to as many as space will admit, in different parts of the State, who are using from 1 to 16 machines each:

Dr. Glenn, of Jacinto; R. S. Cary, Sacramento; Charley Coyle, Woodland; G. W. Scott, Yolo Co.; Bullard & Co., Chico; John Simpson, Tehama; E. Hunter, Princeton; John Boggs, Colusa; Murdock & Jones, Colusa; Overhiser, of Grangers' Union, Stockton; A. L. Layre, Fresno Co.; I. Friedlander, San Francisco; John Mitchell, Modesto; Grangers' Union, San Jose.

THE SIX-FOOT MACHINE, with two horses, will seed 12 acres per day easily. THE EIGHT-FOOT MACHINE will seed 16 acres per day; THE TEN-FOOT MACHINE, with four horses, will seed twenty-five acres per day; THE TWELVE-FOOT MACHINE will seed 34 acres per day; THE FOURTEEN-FOOT MACHINE, with six horses, will seed 40 acres per day. ☞ Extras of all parts always found with us.

Our Assortment of Harrows is the Most Complete to be found in the State.

Iron Harrows; Hard Wood Harrows, with adjustable hinges; Teeth of the Best Toe-Cork Steel; seven and nine Chisel Tooth Cultivators, with Reversible Teeth.

COLLINS' CAST CAST STEEL PLOWS.

The people of the coast need no longer be humbugged by imitation Cast Cast Steel Plows. We will keep the Genuine Collins' Steel Plows, made expressly to suit the wants of this trade; also, a full line of Extras for the above goods, which we guarantee to fit.

Feed Cutters, Wine and Cider Mills, Barbed Wire for Fencing, Wagons, Spring Wagons, Halliday Windmills, Etc.

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(PERKINS' PATENT)

Self-Regulating, Farm Pumping, Railroad and Power

WINDMILLS,

Pumps & Fixtures,



Have been in use on the Pacific Coast in the towns and farming districts for over four years, and wherever they have been sold (and there are thousands of them out) they are doing their work as well as when put up. A careful perusal of our Circulars gives a fair representation of them and shows their simplicity.

We are prepared to fill orders for all sizes, from a PUMPING MILL to a 24-foot POWER MILL for running Machinery, as well as doing the pumping.

The "ENTERPRISE" FEED MILL

(PACKERS' PATENT),

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Equally as commendable, has now been tested to entire satisfaction of all, and meets the demand for an article of that kind that has not been supplied on the Pacific Coast heretofore.

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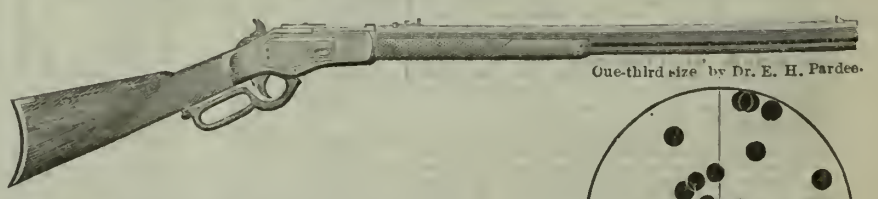
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MODEL 1873.



One-third size by Dr. E. H. Pardee.



String measuring from center of target to center of each shot, 32⅝ inches. Average distance of each shot, 1 9-100 inches.

The Strength of all Its Parts,

The Simplicity of Its Construction,

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The Impossibility of Accident in Loading,

Commends it to the attention of all who use a Rifle, either for Hunting, Defense, or Target Shooting.

The San Francisco Agency is now fully supplied with all the various kinds and styles of Arms manufactured by the Winchester Repeating Arms Company, to wit:

Round barrels, plain and set, 24 inch—blued. Octagon barrel, plain, 24 inch—blued. Octagon barrel, set, 24, 26, 28, 30 inch—blued. Octagon barrel, set extra heavy, 24, 26, 28, 30 inch—blued. Octagon barrel, set 24, 26, 28, 30—extra finished case hardened and check stocks. Octagon barrel, set extra heavy, 24, 26, 28, 36 inch—extra finished—C. H. & C. S. Octagon barrel, set, 24, 26, 28, 30 inch. Beautifully finished. C. H. and C. S. Known as "One of One Thousand." Octagon barrel, set, gold, silver and nickel plated and engraved. Carbines blued, also gold, silver and nickel plated. Military rifle muskets, model 1873. Rifles, muskets and carbines, model 1866. **Reloading Tools, Primers and Parts of Arms.**

A heavy stock of Cartridges Manufactured by the W. R. A. Co., for all kinds of Rifles and Pistols, constantly on hand and warranted the best in the market.

JOHN SKINKER, No. 108 Battery Street, San Francisco,

SOLE AGENT FOR THE PACIFIC COAST.

Sweepstake & Eureka Iron Beam Gang Plows, with Extra Hardened Bottoms,

Made Expressly for **BAKER & HAMILTON,** San Francisco and Sacramento.

Star Moline Plows.

We are the sole agents on this coast for the celebrated STAR MOLINE PLOW. They are made EXTRA HARD, elegantly finished, and the only Plow which scours in every soil found in California and Oregon. Purchasers should see that each Plow is branded on the beam with a BRIGHT RED STAR, and our name over it. There are numerous cheap sheet steel Moline Plows offered, which are nearly without merit, excepting the NAME "Moline."

Many of the plows are *iron*, which are sold for *extra hardened steel*, and purchasers should see that they are not imposed on by any imitation. The STAR *Moline Plows* have been tested for the past two years, and found to wear longer than any other, draw much easier, and scour in any soil. The reputation of the *Extra Hardened* STAR *Moline Plow*, as sold by us, has been so great, that the demand for them has induced numerous manufacturers to flood the State with sheet steel imitations. Caution is therefore necessary in buying plows—see that all have BAKER & HAMILTON on OVER the STAR.

SIZES AND PRICES.

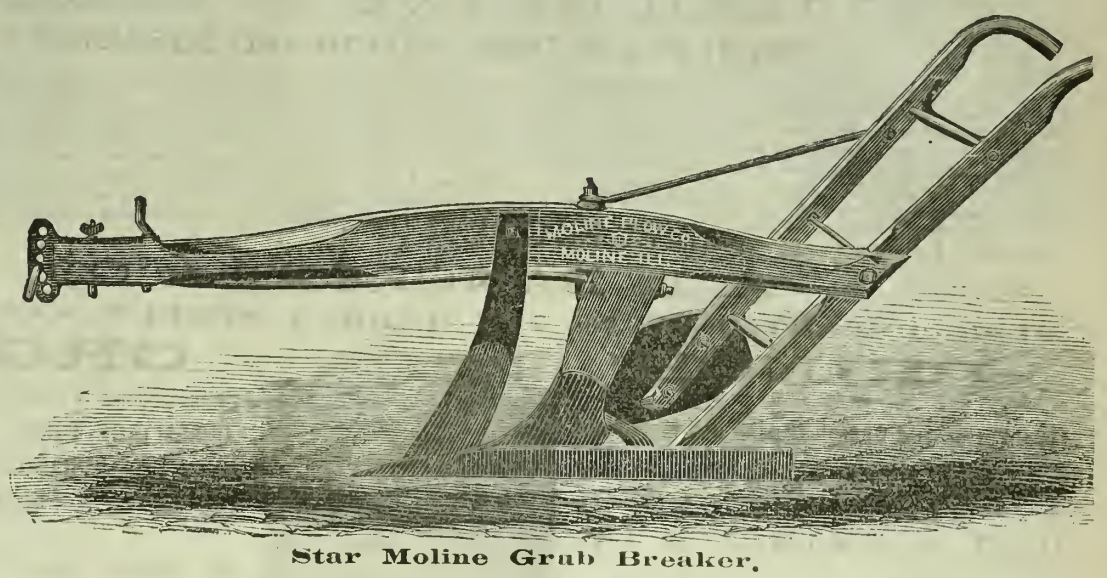
No. 4 Slip share cuts 9 in..$8 50
No. 4½ Slip share cuts 10 in. 9 00
" 8½.... " 9 in.. 8 50
" 8 .... " 10 in.. 9 00
" 7½.... " 11 in..14 50
" 7 .... " 12 in..15 00
" 6 .... " 14 in..16 00
" C 7 Scotch Clipper cuts 12 in .17 50
8 No.1 Cast Steel, 12 in.19 00
8 No.1 " Iron Beams.22 00
The S Plows have Steel Lands.
High Landsides...$1 extra.
Fin cutter.....$1 50 "
8 in.Gauge Wheel 1 75 "

Rolling Coulter, 12 in.$6 00
" " 14 in. 6 50
Castor " 8 00
16 in. Extra Breakers..40 00
18 in. " " 45 00
20 in. " " 50 00
22 in. " " 55 00
24 in. " " 60 00
Two-wheeled Truck for Breakers..... 18 00
12 in. Grub Breakers..35 00
14 in. " " ..37 50
16 in. " " ..40 00
Michigan Dbl Plow...45 00
The Extra Breakers have extra Share Rolling Coulter and Gauge Wheel.

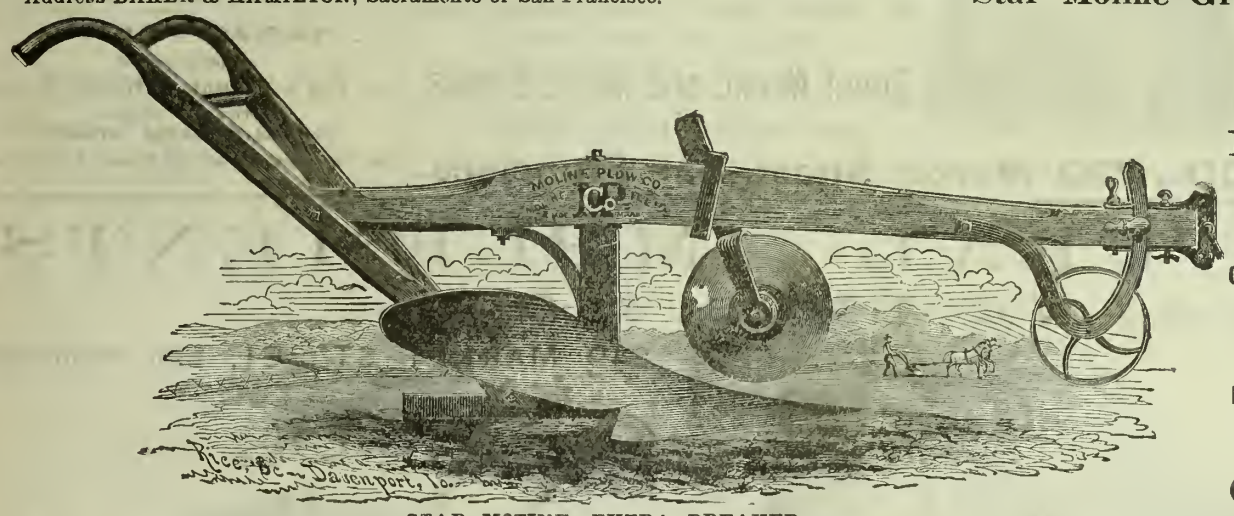
Single Shovel Plow, Wood Beams.....$7 50
Double Shovel Plow, Wood Beams..... 8 00
Double Shovel Plow, Iron Beams..... 9 00
Single Shovel Plow, Iron Beams..... 8 00
Three Shovel Plow, Iron Beams.....12 00
Subsoil Plow, with Gauge Wheel.....22 50

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No. 0, 1⅛ inch Axle, Sarven Patent Wheels, one Lazy-back Seat, with Shafts.....$150 00
No. 0, ditto, with Wood Hub Wheels..... 135 00
No. 1, 1¼ inch Axle, Sarven Patent Wheels, two Lazy-back Seats, Two Side and End Springs, Pole, etc.. 240 00
No. 1, ditto, with Wood Hub wheels..... 225 00
No. 2, 1⅜ inch Axle, Three Spring Grocery Wagon, with Shafts, Sarven Patent Wheels, One High Seat, etc. 240 00
No. 2, ditto, with Wood Hub Wheels.....$225 00
No. 3, 1⅜ inch Axle, Two Side and two End Springs, Two Lazy-back Seats, Sarven Patent Wheels, Pole, Brake, etc..... 245 00
No. 3, ditto, with Wood Hub Wheels..... 230 00

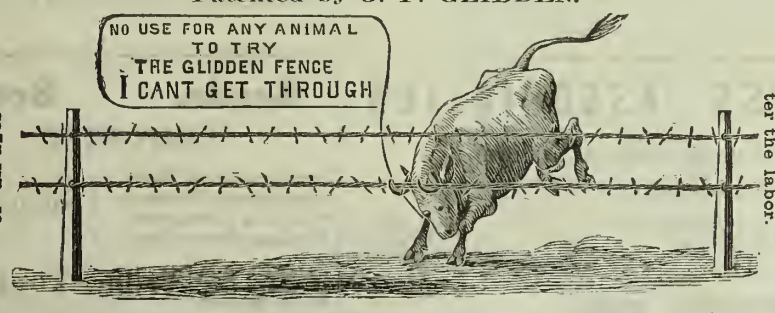
Shafts to fit No. 0 Wagon, not Leathered, $15. Pole with Whiffletrees and Neckyoke for No. 0, $25. Brake for No. 0, $15.
Shafts to fit No. 1, not Leathered, $15. Pole for same, $25. Brake for same, $15.
Top, with Side Curtains, from $35 to $100. Shafts, Pole, Brake and Top for Nos. 2 and 3 same as No. 1

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It makes the most durable, safe, and reliable fence in the world against stock of all sizes.



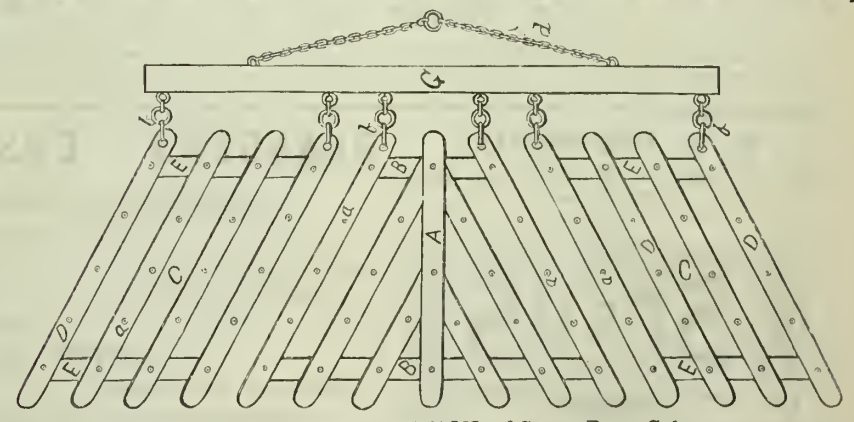
About one-half the cost of any other good fence, and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8. Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

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General Agents for the Coast — K and 10th Streets, Sacramento.

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Invented by J. E. PERKINSON, of Santa Rosa, Cal.

Merits are claimed for this Harrow over all others in use. It gives good satisfaction in its work, and should be thoroughly tested by farmers. It has the build of durability. It can be made for $35 on this Coast.

This Harrow is made in three sections, which are connected to a draft bar by links and clevises. The bars are about four feet six inches long, and there are four bars in each of the two outside sections. The center section is filled up as seen in the engraving. The Harrow is made of good Eastern oak, with 63 steel teeth, and covers about 13 feet width of swath.

Reasons for the Superiority of this Harrow.

First—By the lightness of the draft, two horses, of ten hundred each, can draw it on loamy soil with ease.
Second—It is the best attachment in use. The draft bar is perfect. By using an equalizing chain to draw by, it keeps the Harrow in its right position and makes it easy to turn at a corner, as no wide spread Harrow can be turned with ease without those equalizers.
Third—Where other patentees have failed in setting the teeth so that each and every tooth will make a separate and distinct mark, this Harrow will do it on trial.

The Harrow is manufactured by the inventor, J. E. PERKINSON, at Santa Rosa, Cal., to whom applications for rights can be made.

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CALVERT'S CARBOLIC

SHEEP WASH,

$2 Per Gallon.

After dipping the Sheep, is useful for Preserving Wet Hides, Destroying the Vine Pest, and for Disinfecting Purposes, Etc.

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SQUARE, GRAND AND UPRIGHT.

PEERLESS IN TONE, ACTION AND DURABILITY.

These instruments have an unrivalled reputation throughout the great Music centers of Europe and America, for quality of tone, perfect action, thorough workmanship and extraordinary durability. Such eminent authority as Thalberg, Gottschalk, Strakosch, Marmontel, Vieuxtemps, Jehin Prume, Wolfsohn, Charles Fradel, Schultz, Benthen, Groscurth, De Pelchin, Staab, Heller, Testa, De Vivo, Kunkel, Webster, Zellner, and many others, have pronounced the KNABE PIANO equal in every respect to the best instruments manufactured in Europe or America, and superior in some important feainres to any other. These Pianos are highly appreciated wherever they are well known, not only throughout the great East, South and Northwest, but also in England, France, Germany and Switzerland, where they are frequently met with in the families of American residents abroad. The KNABE PIANOS have been manufactured about 30 years, and are found to withstand the effects of the most trying climates, whether characterized by extreme changes of heat and cold, or of dryness and moisture. Every instrument is fully warranted. For Illustrated Catalogues and Price Lists, apply to

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SHORT HORN DURHAM BULLS

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FOUR CHOICE COWS,

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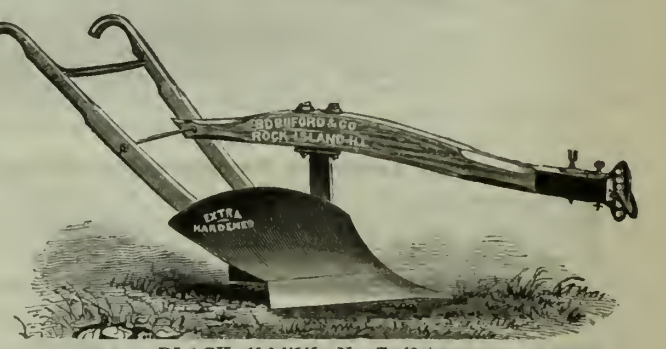
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COLLINS' CAST CAST STEEL—12 in.

We Warrant these Plows to Scour in any Soil.

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BLACK HAWK, No. 7—12 in.

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These trees are from five to twelve inches high, transplanted regularly into boxes 30x20 inches square, weighing 150 pounds. 150 or 500 in each box, in splendid condition for transplanting to their permanent location. Price, $6 to $12 per 1,000. Will contract to plant the trees, or furnish superintendence, on low terms. Cash must accompany orders for less than $50, or if greater than that amount, city reference must be given. Address,

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THE PACIFIC RURAL PRESS—a paper chock-full of practical good sense and good things—urges that a day for tree-planting be set apart by every Grange in the State, and suggests the Patron's anniversary day, December 4th, as a suitable one to inaugurate this good work all over California.—Santa Barbara Press, Mar. 25.

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PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, OCTOBER 7, 1876. [Number 15.

Death of James Lick.

James Lick, the great philanthropist, whose name is famous for his gifts to science and charity, died in this city at one o'clock Sunday morning, at the ripe age of 80 years. His dissolution was painless and peaceful. The body was free from disease, and death was simply the result of the complete weariug out of the system. He had been gradually sinking for the previous ten days, and he was fully conscious that his earthly oaieer was rapidly drawing to a olose. He conversed cheerfully of his approaching death, and manifested a spirit of thorough resignation. His thoughts were chiefly centered on the exeoutiou of his will, as expressed in the deed of trust, and his conversations related principally to the cousummation of his public benefactions. The only regret with which he surrendered his life was that he was not permitted to see his various projects carried out. Mr. Lick had been in ill health for several years past and although his demise has been several times expected, he has rallied so often that it was expected he would live to see a realization of his plans.

Although Mr. Lick, whose portrait is seen on this page, has been a resident of California for many years, he was very little known even in San Francisco, being a man of eccentric and peculiar habits and averse to mixing with his fellows. When, however, a few years since, he suddenly announced his intention of giving his immense fortune to scientific and charitable objects, his name and fame was spread abroad through the land, and no Californian was better known abroad than James Lick. The money which he had accumulated during his long life was given to a board of trustees, who were to oarry out the plans devised by the donor on broad and generous principles. The philanthropist has taken occasion to change the board of trustees several times, which led some persons to believe that he had repented of his resolution, but in each instance the property was turned over to a new board in the same manner as to the first. He also changed the trust deed once, by modifying certain bequests, increasing others, and leaving a certain amount of money to his relatives.

Whatever may have been his reasons for making the change, the fact remains that the bulk of his immense wealth is to be distributed in various practical ways to the people, who should surely allow the giver to choose where to bestow his fortune without so close a criticism as to all the objects. He was considered an eccentric man, but surely the eccentricity which leads a millionaire to divest himself of property valued at $5,000,000, and give it, during his lifetime, to the people amoug whom he lived, is to be oommended, not censured. This he did, and whatever may have been his idiosyncrasies, his varying moods or temper, the crowning act of his life shows that the heart was in the right place, and that his fortune was bestowed in accordance with long cherished convictions and matured plans. Mr. Lick was a man whom even those nearest to him did not understand or appreciate. He never had credit for the sterliug qualities he possessed. His greatness of wisdom and generosity will be better recognized in the future.

For presenting a biographical sketch of James Lick the materials are meager. He lived in seclusion, and even when engaged actively in business pursuits was little known, even to those with whom he was brought in contact. He was born August 25th, 1796, in Fredericksburg, Penn. He was a descendant of one of the Revolutionary fathers, William Lick, who emigrated from Germany to America previous to the war of Independence, in which he took an active part. James Lick was taught the trade of a cabinet maker and carpenter, and served for a while in a pianoforte manufactory in Baltimore, Maryland.

His restive spirit, however, attracted him in 1820 to Buenos Ayres, anû there he remained for 12 years, accumulating by industry and his speculative insight the good round capital of $40,000. For a season Mr. Lick returned to Penusylvania, and seriously bent himself toward establishing a manufactory of pianofortes in Philadelphia, but after leasing ground and erecting buildings he gave up the project and returned to Buenos Ayres. Matters were there not to his liking, and he is heard of next at Valparaiso, in Chile, where commerce and pianos gave him occupation for a few years. From Chile he went to Peru, and there devoted himself to his business in cabinet work and pianofortes for 10 or 11 years.

Mr. Lick arrived in San Francisco in 1847, having with him his entire wealth, amounting to the sum of $30,000. He invested all his capital and all earnings in real estate. The most promising portion of the city in those days was then what is known as North Beach. Most of Mr. Lick's investments were made in that locality, and owing to the subsequent abandonment of that section as a business center, advanced but little in value. He extended his investments, however, to other parts of the



THE LATE JAMES LICK.

peninsula which have since become the very heart of the great city. Then, the lots he purchased were more sand dunes and cost him but a trifle. The lot on which the Lick house now stands is said to have been bought by him for an ounce of gold. All the city property, outside of North Beach, in which Mr. Lick invested, multiplied in value rapidly and built up the immense fortune which he in later years enjoyed. He also invested money in Santa Clara and Los Angeles counties, purchasing in the latter county a portion of the Rancho de Los Felis and the island of Santa Catalina. With the exception of the Lick House lot and the property in Santa Clara, Mr. Lick was rather conservative in the matter of improvements. The structure which bears his name is, however, one of the most notable edifices in the city, and at the period of its erection was far in advance of the times. The property at Santa Clara he improved for his own residence, and, on a piece of land near San Jose, erected a flour mill, on which he lavished about $200,000, almost all the woodwork in the same being of mahogany.

After a lifetime spent in the pursuit of riohes, on the 2d of June, 1874, Mr. Lick executed a deed of trust in which he divided nearly all his vast fortune for public benefactions, aud appointed a board of trustees. Estimates of the estate at that time placed its value at $5,000,000. We gave at that time the full text of the deed, but as it has since been nullified we append a list of the donations of the last trust deed as it now stands. The present Trustees, appointed about a week before Mr. Lick's death, are: C. M. Plum, E. B. Mastick, Wm. Sherman, Geo. Schoenewald and R. S. Floyd. We omit any account of the sohedule of property, and, in speakiug of the gifts, summarize them from the deed:

To his son, John Henry Lick, he gives $150,000. To John H. Lick, of Fredericksburg, Pa., $3,000; to Henry Lick, of same place, (his half-brother,) $5,000; To his sister, Sarah Hepler, $5,000; to his niece, $2,000; to another niece, $2,000; to his nephew, James W. Lick, of Santa Clara, $2,000; to Thos. E. Fraser, of San Jose, $2,000.

The Trustees are required "to expend the sum of $700,000 for the purpose of purchasing land, and constructing and putting up on such land, as shall be designated by the party of the first part, a powerful telesoope, superior to and more powerful than any telescope ever yet made, with all the machinery appertaining thereto and appropriately connected therewith, or that is necessary and convenient to the most powerful telescope now in use, or suited to one more powerful than any yet constructed; and also a suitable observatory connected therewith. This is in charge of the Regents of the University of California, and the telesoope and observatory are to be known as the Lick Astronomical Department of the University of California."

The Protestant orphan asylum of San Francisco receives $25,000.

The sum of $25,000 is given to the city of San Jose to erect a free orphan asylum, without regard to creed or religion of parents.

The Ladies' Protection and Relief Society of San Francisco receives $25,000.

The Mechanics' Institute of San Francisco receives $10,000 for the purchase of scientific and mechanical works.

The Society for the Prevention of Cruelty to Animals of San Francisco receives $10,000, with a hope that similar societies will be organized in other towns of California.

The sum of $5,000 is to be expended in a monument to his mother, Sarah Lick; $5,000 for a monument to his father; $5,000 for a monument to his grandfather William Lick, who died near Morristown, Pennsylvania, at the age of 104 years, to commemorate the services rendered by him in the American struggle for independence, and the hardships he suffered at Valley Forge and other places during the struggle; all of said monuments to be erected at Fredericksburg; and the further sum of $5,000 in the erection of a granite monument to the memory of the sister of the party of the first part, named Catherine, to be placed at her burial place, Pennsylvania.

Out of the proceeds of the estate the sum of $100,000 is set aside to found an institution to be called the "Old Ladies' Home," as a retreat for women who are unable to support themselves aud who have no means of their own. The trustees of this are A. B. Forbes, J. B. Roberts, Ira P. Rankin, Robert McElroy, and Henry M. Newhall.

The sum of $150,000 is to be expended for free baths in the city of San Francisco. H. M. Newhall, Ira P. Rankin, J. D. B. Stillman, and John O. Earl are the trustees.

The sum of $60,000 is to be expended for a monument to Francis Scott Key, author of the "Star Spangled Banner." This is to be erected in Golden Gate park.

The sum of $100,000 is to be expended in a group of bronze statuary at the City Hall, which shall represent by appropriate designs and figures the history of California; first, from the early settlement of the Missions to the acquisition of California by the United States; second, from such acquisition by the United States to the time when agriculture became the leading interest of the State; third, from the last named period to the first of January, 1874.

The Trustees are to found and endow, at a cost of $540,000, an institution to be called "the California School of Mechanical Arts," the object and purpose of which shall be to educate males and females in the practical arts of life, such as working in wood, iron and stone, or any of the metals, and in whatever industry intelligent mechanical skill now is or can hereafter be applied; such institution to be open to all youths born in California. The institution shall be founded and endowed under the direction of said Dr. J. D. B. Stillman, Horace Davis, A. S. Hallidie, John Oscar Eldridge, John O. Earl and Hon. Lorenzo Sawyer, and the survivors of them.

After making these payments, the residue and proceeds of the estate is to be conveyed in equal portions to the California Academy of Sciences and the Society of California Pioneers, to be expended in the purchase of a library holding natural specimens, chemical and philosophical apparatus, rare and curious things useful in the advancement of science, and generally in carrying out the objects of the societies.

Mr. Lick reserved to himself his homestead in San Jose, during his life, but this now goes to the Pioneers and Academy of Sciences. He had previously given to these societies each a lot 80x275, on Market and Fourth streets, the lots being valued at about $250,000 each. These lots are aside from the deed of trust and the societies now have possession of them.

The Society of California Pioneers, of which Mr. Lick was President, took charge of the obsequies. The remains lay in state at the Pioneers' hall on Monday and Tuesday. On Wednesday the funeral services were held. The body was escorted to the grave by the Pioneers, Academy of Sciences, students of the University, Mechanics' Institute and city officials, etc. The funeral services were held at the Mechanics' Institute pavilion, and the remains temporarily placed in a vault in the Masonic cemetery, until their final removal to Mount Hamilton—the site of the Lick Observatory. To one who has visited Mount Hamilton it is no mystery that Mr. Lick should choose it as his final resting place. We believe that this deed of his with reference to Mount Hamilton will be the greatest monument of his life.

The Lehigh and Wilkesbarre coal companies have resumed work at all their collieries with full force at full time.

Martin Farquhar Tupper, the English poet, is on his way to California.

CORRESPONDENCE.

The Silk Question.

EDITORS PRESS:—Since the late and unprecedented rise in the price of raw and manufactured silk the silk question has been looming up again, some papers even getting to speak of it in the same strain of over-confidence and enthusiasm as they did in former times when the silk fever was at its full hight. But let us look at the question more coolly, and rather from a practical than a theoretical standpoint. Some time ago a San Francisco daily paper contained an editorial headed "Something for Us," all about the really astonishing progress and prosperity of the silk manufacturing interest in America, which, in fact, is producing annually over $24,000,000 worth of silk goods, mostly thread, ribbons, trimming, binding, etc.; and after giving a glowing acconnt of the greatness of that indnstry, the said paper winds np by intimating that there is a great fntnre for California in the raising of the raw material; that there can be more money made in silk in one year than in wheat in twenty years; that here is a chance for our cheap yonng labor to find a profitable employment; lastly, that in this important movement—referring to the prosperity of silk mannfacturiug in this country—we have the benefits of the much decried protective system.

I did reply to the above passage, but for one reason or another my letter was not published; it is true that my assertions, which I regarded as established facts, did modify considerably that very paper's conclusions; in short, here they are:

First, if silk mannfacturing in America is in such a prosperons condition, it is not only due to the high duty of 60 per cent. on the foreign article, bnt more so to the fact that no duty whatever is levied on the *raw* material, which is imported *free* into the United States.

Second, the silk growers, who raise the raw material, do not see the beanties of a tariff that permits the introdnction, free, of the very article they grow; and, presently, even with the cheapest labor at hand, either Chinese or San Francisco hoodlums, they would be nnable to oompete with the still greatly cheaper labor of Asia, where silk is raised in immense qnantities.

Third, to raise cocoons with profit we must either have a high duty on raw silk imported from abroad, or as cheap labor here as they have in China or Japan.

Fourth, whether cocoon raising would pay or not, we cannot make of it a permanent business unless we have filatures at home to reel onr cocoons into grege.

Fifth, no filatures can snbsist for a certain length of time, say from three to fonr years, without the co-operation of all interested or some aid from the State.

Sixth, never can the raising of silk, particnlarly now with our relatively high labor, pay more in one year than wheat in twenty years. This is a great exaggeration. Indeed, silk raising is on the whole more profitable to a State at large than to individuals separately; for it is the small producer that makes of a State a regular silk-producing conntry.

A free tariff, high labor, total absence of filatures, competition from our Asiatic neighbors, without speaking of the existence yet in onr midst of pebrine, are the only obstacles in the way of making of California a silk-growing conntry like France or Italy. So much for the production of the raw material. Such were my remarks to that San Francisco daily.

The Local Question.

In communications to the RURAL PRESS of late years, I believe that I have snfficiently proven that the question with us is not whether the mulberry tree will thrive well in onr State; whether silk worms can be successfully raised in times of no epidemy, or the silk be of a superior quality, but that to make silk-growing pay we must have cheap labor as long as the raw material can be procured in any qnantities from the silk district of Asia at snch low prices. I showed, besides, that the most a farmer could make by raising silk worms wonld amount from $20 to $200, according to the size of his family, and provided the latter would raise the worms themselves. The price of silk, it is trne, has risen considerably since, but that of cocoons not in such a proportion as to warrant the wild assertion that farmers could make more money in one year in raising silk worms than in 20 years in prodncing wheat.

Cocoons have gone up 25 to 50 per cent., and should they rise even 100 per cent., which is more like their old price of 20 years ago, still, as a person alone couldn't raise more than one ounce of seed, say, in round numbers, in 100 pounds of fresh cocoons, that would only bring from $40 to $100, from which would have to be deducted snndry expenses; provided, too, that pebrine or any other disease would not break ont among the worms. Silk raising may thns pay something, and the best of it is that, small as the sum might be, it is made in a very short time, women and children being able to do the whole raising without interfering with the men's occupations on the farm. As to

My Experiments this Year

I have but little to say. I hatched two onnces of eggs — two lots of half an ounce each from France, the balance from here. The hatching snceeded well enough, and I was getting along very nicely with my worms, no sign of pebrine, except in the third age with one of the lots from France, the other lot getting ready to spin, when came the intense heat of June, from the 10th to the 18th. On the third day, the thermometer being at 96 deg. in the cocoonery, I noticed several cases of jaundice among the worms. Next day it kept on increasing, so did the heat, the thermometer going np to 104 deg., and, finally, jaundice broke out among the worms like a regnlar epidemy, sweeping off three-fonrths of those ready to spin and one-half of the less advanced worms which had just reacbed their fonrth molting. The heat at last moderated considerably, the thermometer falling down to 78 deg. It was astonishing to see the change that took place among the worms; the jaundice had disappeared entirely, the worms in three days almost doubling in size and having a splendid appearauce; no finer or healthier worms could be seen. But on the fourth day the heat came back on us, the thermometer rising up at once to 93 deg., and the jaundice breaking anew among the worms, and in a few days swept them all off. I hardly got several hundred of cocoons out of 15,000 worms.

In 1869, in letters to the Sacramento *Union* on silk culture, I spoke in this way: "In short, from the hatching to the laying of the eggs, let everybody desirous to raise silk know that this bnsiness reqnires the most constant and minnte care; that the hatching must be made as early as practicable; that it is better and safer to have everything in readiness—calorifères, wells, cellars and other needed apparatus—to heat, cool and ventilate the cocooneries. That we mnst not rely exclusively on onr 'splendid climate' and healthy food'; and last, that we mnst raise the worms with as much care here as they nsually do in less favored conntries."

The room I used for a cocoonery, though having many windows, with plenty of air, light and space, still is not adapted to raising silkworms during those hot spells in June, the air of a room where silk worms are raised having to be stirred up through a *tarare*, a contrivance to send in fresh air and stir up that inside. My experience of this year shows conclusively that we must keep, by all means in our power, the room at a degree low enough, and that the raising must be done as early as practicable, so as to avoid the intense heat of the summer. Little by little, we thus find out what cares are required in this country to raise silk worms successfully; and, though I have to announce yon another failure for this year, I will, nevertheless, keep on and try it over again, to my own and the pnblic satisfaction. I sincerely regret not being able to give you better news about our silk industry, but I bope that the naked truth, as I give it to you, will be more acceptable than glowing and deceitful accounts, and more beneficial to the true interests of sericulture in general. FELIX GILLET.

Nevada City, Cal., Sept. 27th, 1876.

Yes, let us have the truth by all means. The prosperity of this State must be surely founded. No industry shonld be nrged without a fnll nnderstanding of the conditions involved—unless it be advocated merely upon experimental grounds, to ascertain these conditions. Mr. Gillet is doing the State good service. We trust success may be finally attained, and with it will come a thorough understanding of the requirements for success. All our readers will thank Mr. Gillet for his interesting communication.—EDS. PRESS.

Diversified Farming.

EDITORS PRESS:—This is rather a disastrous year for the farmers who depend upon the sale of corn, wheat and barley. After having to pay the expense of harvesting their exceptionally large crop, they are unable to dispose of the same at a price which will remunerate them for their outlay in labor and coin, and leavo any margin for a moderate profit. In this county 65 cents per cental is all that is offered for barley, and, although corn is worth a little more now, it is almost certain that when our new crop comes in the price will fall to 70 or 75 cents per cental. Wheat is a little better, but even that fnrnishes a small margin of profit.

When men are enjoying a reasonable amount of prosperity, thoy are generally content to let things rub on as they are, but now is the opportunity of those who advocate diversified farming. It is a time-honored maxim that no one should "put all his eggs in one basket;" in fact, trusting to one or two crops alone for success (which depend upon rainfall and favorable seasons, both of which are nncertain,) is very much like betting against a bankiug game with the certainty of loss in the long rnn staring you in the face.

The Remedy

For all this is diversified farming. First reduce the size of your farms, cut off the heavy expense for labor, plant a variety of crops. Some of them will always hit and pay for the failure of the others. Endeavor to raise as nearly as possible all that your family consume. Get a few good dairy cows, and keep a corresponding number of hogs; raise chickens, ducks and turkeys. There is always a good market for butter and cheese, fat bogs, poultry and eggs. There is more profit to be got ont of these small matters than out of large and expensive operations. There is certainty of regnlar market pay for the first, with no deductions for wages, for the milking and dairy work, hog feeding and poultry raising, can be done almost invariably by the family. The way to make farming pay is to reduce expenses to the smallest scale, and increase the receipts to the utmost. Men with families on small tracts of land make more money than large farmers. The tremendons outlay for labor takes most of their receipts in good years, and brings them in debt in bad years. So that after several years of hard work they generally bring up in debt—in addition they are, by constant cropping and shallow plowing, or scarifying the surface, impoverishing the land that onght to improve if farmed properly.

The history of farming in America is full of examples of this. The first occupants of our fertile virgin soils invariably have exhausted their resources by constant cropping without any return in the shape of manure until the crops failed to remunerate, when the land would be sold and abandoned for new lands farther West, where the same rninously exhaustive system was continued. In this way almost all of the fertile lands of America have had the cream of their fertility taken from them by these wholesale scarifiers and barley scratchers, who have, in the last 20 years, reduced the yield of the grain lands of California to one-third of the original production. Fortnnately the indisposition to plow deep and thoronghly prevents the entire exhaustion of the soil. After the abandonment of the land by the scarifier, the land is either nsed as a pastnre and gradnally recovers, or is ent up into smaller tracts, and, under a better system of farming, again becomes productive; but it is disconraging and up-hill work to restore exhausted lands whilst there are plenty of fresh, nnworked lands that can be purchased at reasonable rates.

This is particularly the case in Southern California, where

Numerous Large Ranchos.

Containing large bodies of moist land, where crops may be said to be certain, have been cut up into suitable tracts, and are for sale on easy terms to the indnstrions farmer. Unlike the dry plains of the north, which, without irrigation, are only suited to grain raising, these lands are well adapted to the diversified farming which I am advocating, and are the best lands for dairying, hog, sheep and cattle raising, that are to be found in the State of California. They are convenient of access by both railroad and by steamer. The prodncer has his choice of the two methods of transportation, as the cars and steamers, being owned by different parties, compete with each other, and carry passengers, grain, stock and dairy prodncts at reasonable rates. Although the railroads are almost entirely owned by one corporation, the sea is the people's highway, and is free for all. Consequently rates from Southern Californiа must always continne to be reasonable, as there is sure to be opposition.

In the interior valleys, where the producer is dependent upon railroads, and where competing roads are not likely to be built, the farmer must pay whatever the roads choose to demand, and they usnally want the lion's share of the profit. Considering the fact that railroads are often built through unsettled countries, with the expectation that population will follow and bnsiness be thereby created along their roads, for two or three or even more years their roads must be operated at a loss, and their charges must necessarily be high, in order to try and make expenses. It costs money to build and operate both railroads and steamers, consequently when a farmer is seeking land he shonld never lose sight of the fact that his prodnce (let it be what it may) must be sent to market, and the differeuce between high and low freights is a handsome profit in itself. Railroad time between here and San Fraucisco is 24 hours for passengers and 48 for freight, and by steamer 36 to 48 honrs; and by the latter communication is never interrupted by bad weather in the winter, as it is occasionally by rail. Thns having two rontes to San Francisco, we are snre of rapid and daily communicatiou. This is an all-important matter for dairy and stock men; and as soon as our extensive and fertile valleys are occupied by the right kind of men we will be able to snpply San Francisco with fat beef, mutton and pork, the two former particularly in the winter season when they are always scarce and high. And in the summer, fall and early winter, we can furnish the choicest grass butter from our alfalfa and green sod pastures, which flourish in perpetual verdure.

In my next I will show by figures what can be done in Southern California by diversified farming, and will prove that in no other part of the State are snch facilities offered for carrying it on as in this county of Los Angeles.

WM. R. ALDEN.

Anaheim, Sept. 25th, 1876.

Gum Trees.

EDITORS PRESS:—Usually, when I see an article in a newspaper written by a person who advertises in the same journal, a snspicion of "ax to grind" obtrudes itself on me.

Something of a similar feeling came over me when I read Mr. Stratton's letter to the RURAL in March, about putting ont gum trees in April. However, I got the better of my suspicions and of a lot of gum trees, and having prepared my land for pumpkins I set ont the trees.

Fonnd it very convenient to take a butcher knife and cut them ont of the box with a brick of earth encasing the young roots; set the brick upright in a hole, tree uppermost of course, and filled up with dirt and just a little water to settle things, covering with loose earth.

Part of those trees I watered a little once after, (making a hole at the side, ponring in the water, and, after the water was absorbed, replacing the dirt,) and part had no water since planting. Both have grown equally well, and some are already seven feet high. I'm aware that's nothing to "blow" about, although six feet in less than six months is not so much amiss, even for California; bnt I write this to corroborate Mr. Stratton's statement that gum trees planted on land when prepared for corn thrive excellently. EDW. BERWICK.

Monterey, Cal., Sept., 1876.

POULTRY YARD.

M. EYRE, JR., Napa, Cal., Corresponding Editor of this Department.

Farmers and Poultry.

It is no exaggeration to say that not one farmer in 10 in the United States takes the interest in poultry keeping its importance demands. Some are too careless to make it successful, others too indifferent to undertake it, and others still think it too insignificant an industry to occupy the attention of a full grown man.

On very large farms where there are many things to look after, the poultry, if there is any, has to shift for itself in the majority of cases, and is generally voted a nuisance, as it is under snch circumstances.

Many a farmer who does not hesitate to invest in fancy cattle, or horses, or swine, loses all patience if fancy poultry is suggested to him. To this, however, there are many honorable exceptions. The time is coming and not far distant when the exception will be the rule. A general waking up to the importance of improved poultry is spreading among farmers. In a few years the farmer who does not keep improved breeds of poultry and furnish them good care and accommodations will be considered an old fogy.

Perhaps not one man in ten thousand has any idea of the magnitude of the poultry interest when taken in the aggregate. It will doubtless startle some people to be told that in all the Eastern and Middle States the aggregate value of poultry is greater than the aggregate value of any other kind of stock in those States, or any one of them taken separately, but it is nevertheless true. If any one is disposed to donbt it, let him go to the statistics of the last census and satisfy himself.

Another fact that will startle some good people is the enormous aggregate consumption of poultry and eggs in the large cities. From figures furnished by the Produce Exchange of New York city, it appears the annnal oonsumption of eggs in that city alone, at wholesale prices, amounts to the astonishing snm of $8,000,000.

Bucks county, Pennsylvania, alone furnishes $150,000 worth of poultry to the New York market every year, besides sending more than twice that amount to Philadelphia, Trenton and other markets, while large amounts are consumed at home by those who raise them. Bucks county, however, is acknowledged to be the banner county in producing market poultry, although Burlington county, N. J., is not far behind. It may be truly said that if farmers throughout the country were to equal those of a few counties adjacent to the large markets, the business would be overdone. No such apprehension need deter any one from improving the quality and increasing the quantity of his poultry products for many years to come. The large city markets are not the only ones where fine poultry and eggs can be sold. These are cash articles the country over, and will be as long as any of us will be living to produce them.

Farmers in the vicinity of large cities are alive to the importance and profits of poultry raising, and the time must come when those more remote will give the subject greater attention.—*Practical Farmer.*

COMPLIMENTARY.—Maria A. Shinn writes to us from Lodi, San Joaquin county, as follows: "I find the carbolic powder better than anything I ever used for lice on poultry. I really could not do without it. I have raised about 500 young chicks since January 27th. I set hens all through the warm weather and they did finely. By using the carbolic powder I find it will keep ants away. I have a thousand thanks to offer Mr. Eyre, Jr., and the RURAL PAPER which I have taken four years. I think it is an excellent paper. It gives so much valuable information generally. Every Friday evening, I look first for the Poultry Yard. It has been of more value to me than the price of the paper for the four years which I have taken it."

LEASING FARM MACHINERY.—A company has been formed in England who propose to furnish machinery to farmers, manufacturers and others, on a purchase-hire system similar to the practice of sewing machine and piano manufacturers in this country, of periodical payments extending over a term of one, two and three years. The English company has a capital of $5,000, divided into shares of $50.

The Dairy.

Marks of Dairy Cows.

Prof. L. B. Arnold, Secretary of the American Dairymen's Association, has just concluded a valuable contribution to dairy literature in the shape of a neat book entitled "American Dairying;" sold by the publishers, "The Rural Home Company," of Rochester, N. Y., for $1.50 per vol. The book is comprehensive and suggestive, and will be found of great practical benefit to dairymen.

We make an extract from the book this week concerning the marks of milk in dairy cows. Prof. Arnold writes:

The large annual demand for dairy cattle must be supplied from any and all sources that are available. The selections, however, must come mostly from the native stock. Culling from different sources, and from animals of such unequal merit, calls for the readiest skill in judging of the external signs of milking qualities.

There are certain external indications of the capacity for producing milk which are as apparent from an inspection of the cow as are the signs of strength and speed in the horse. In old dairy districts, where the owners are in the habit of filling up their herds annually by purchase, they soon become so expert as seldom to be deceived.

To write out all the marks that are relied upon as showing merit and demerit, would be difficult. They are best learned by practice and close observation. But some of the leading points may be stated that will be of some service in determining some of the wider differences.

A great deal has been said and written in regard to the appearance of good milkers, and a multitude of irrelevant and nonsensical signs have been laid before the public, which have tended rather to confuse and mislead than to guide and enlighten the inexperienced. A sign which has no connection with the thing it claims to signify is always worse than useless, as it is just as likely to lead wrong as right, and detracts from more intelligent indications. What important connection is there between a large flow of milk and a "Roman nose," or a "hollow head;" a long head or a short one; a crumpled horn or a straight one, or one that tapers evenly or unevenly; or a straight leg or a slim tail; or a peculiarly shaped ear or dewlap; or whether the eye-lids are well divided, or much or little wrinkled? Yet these and a score of other signs equally irrelevent are ever and anon circulating through the press to guide, or rather mislead, the inexperienced purchaser.

The reader will see for himself how the points are connected with milk production, and by attentive observation will soon learn to make them of practical utility.

Milk is a female product, and its production may reasonably be expected to be more or less affected if the organization varies much from the characteristics peculiar to the sex. First of all, see that the animal has a feminine appearance—a cowy look. The next thing to be looked after is the digestive apparatus, particularly the bowels and stomach. A large and strong boiler is not more essential to the power of the engine than a large and vigorous stomach is to the production of milk. A cow cannot make milk out of nothing. If she gives a large flow, she must eat and digest a large amount of food to make it from, and she must have a stomach equal to the task—one that has capacity to hold and power to digest enough to manufacture the milk out of.

When the digestive organs are relatively larger than the other viscera, they give depth and breadth to the abdomen, and a somewhat wedge-shaped form, the body tapering forward.

The large stomach and bowels here indicated mark a diathesis in which the fluids abound—a condition, as will readily be understood, very essential to a large flow of milk; broad hips, and depth and breadth of the lumbar region, indicate a large development and flow of blood, and vital influence to all the parts surrounding and connecting with the milk-producing vessels. Gaunt cows are small milkers.

A good constitution is important. This may be judged of by the luster of the hair and the brilliancy of the eyes and horns. Constitution depends mostly upon the heart and lungs, the size of which may be determined by the depth and breadth of the thorax. They should have a good development, enough to secure health and vigor, but the lungs, in particular, should not be excessively large. When very large, they burn up, by increased respiration, the fat-forming material. By the extraordinary energy they create, they induce unusual exercise and motion, which make a rapid waste of tissue and a rapid assimilation to repair it, and thus divert nutriment from producing milk. If too small, the animal may be an excellent milker while she lives, but will be feeble and short-lived.

The capacity of the lungs corresponds with the size of the apertures through which they are filled. Large, open nostrils indicate large lungs, and *vice versa*. In the same way, the indications of the mouth correspond with the size of the stomach.

The chine is regarded as an index to milking capacity. When it is double, it denotes breadth of vertebræ which correspond to the broad, open structure which is favorable to a large flow.

It is an accompaniment of broad hips, and these in turn denote a large cavity, which is essential to good milkers.

The milk mirror, or escutcheon of Guenon, is one of the leading indications of milking capacity. It consists of the peculiar appearance of the hair on the udder.

Looking at the hind part of the cow, more or less of the hair which covers the udder and adjacent parts will be seen to turn upward or outward. This reversed hair forms the so-called escutcheon. If the space occupied by the upturned hair, especially the lower part of it, is very large and broad, so that it extends far outward on to the thighs, it is regarded as indicating a large flow of milk. If the upper part of it is broad and smooth, it is regarded as favorable to a prolonged flow. If the reversed part of it is narrow and irregular in its upper part, it is unfavorable to a prolonged flow. The manner in which the inverted hair connects with the hair adjacent is supposed to have significance. A gradual blending rather than abrupt connection is preferred.

The connection of the escutcheon (or scutcheon) with the flow of milk, is accounted for by Magne, who says that the hair turns in the direction in which the arteries ramify, and that the reversed hair on the udder and adjacent parts indicates the termination of the arteries which supply the udder with blood. When these arteries are large, they are not confined to the udder, but extend down through it and upward and outward, ramifying on the skin beyond the udder, giving the hair the peculiar appearance which distinguishes it from the rest of the surface. If the arteries supplying the udder with blood are very small, they are not likely to extend much beyond the udder and hence form a small escutcheon. Hence, a small escutcheon indicates a feeble supply of blood to the udder, and consequently but little material to make milk out of, and hence, a small flow of milk.

Horticulture.

Fruit at the Centennial.

Editors Press:—Californians will be somewhat surprised to learn that their fruit, upon which they pride themselves, and upon which so many eulogies have been written, when brought into competition with that of other portions of the Union and Canada, ranks second, and is by no means superior. The true way of testing excellence or merit is by comparing samples side by side. This is being done at the great Exposition at Philadelphia. The following is offered as taken from a leading journal's correspondence, and may serve to benefit those of your readers directly engaged in fruit growing, in causing them to put forth exertions which they would not do otherwise. No country on the face of God's foot-stool possesses the *ability* of production as does California. Each and every section has its especial adaptation for certain varieties. All and every fruit cannot be grown in its fullest perfection in any one district.

Among the difficulties which our fruit has to contend with is the long distance of transportation and variations of temperature to which it is subjected, as well as that the samples offered are not chosen from those grown where they attain their greatest excellence. Take apples, for instance, grown on irrigated valley lands and those from the frosty mountain ridges; there is as great difference as between what pass as California apples at the exposition and those of Canada or Michigan, There is no disputing the proposition of California leading all States in her ability for universality of producing fruit; at the same time it is questionable as to any one locality being able to lead in all things. I can say to those who will core and dry the fruit which cannot be grown profitably east of the Sierras, that they will always find a market. People, although laboring under the want of money, complaining of hard times, and economizing in many ways, do not lose their appetites for fruit.

The following is the review of the fruit on exhibition to which I have alluded:

"The pomological and horticultural part of the Centennial show is now open. California sends two car loads of apples, pears, peaches, grapes, figs and plums. They are all in good order. The quality of the grapes and pears is excellent. California apples are second and third rate, and the peaches are not extra. All the fine sorts of grapes are shown, especially the raisin grape, which is creating a new industry.

"No State excels Kansas in the size and general appearance of apples. It is to be noted that, growing on young trees in a rich soil, the specimens are finer than they are likely to be hereafter. The quality of such large apples is never high. Nebraska has a fine show of really good apples and of pears and grapes. Iowa also has a large show of a great many varieties. Not many years ago it was thought extremely doubtful whether fruit could be grown in the prairie States, for the trees died year after year, or blew over in high winds; but after weeding out tender sorts and giving better culture, success has been achieved. The best general crop of apples grown this year in the United States is on prairies between 39 and 40 degrees of latitude. Wisconsin shows nice apples and fair grapes. Ten years ago grapes would not ripen in this State; now, in many places, they are grown at great profit.

"The most interesting and instructive display of apples is from Minnesota, embracing 60 varieties, though only a few are to be commended. A new sort, known as the "Wealthy," is exhibited, which is said to have as high quality as the Baldwin, while the tree is more hardy than any other known variety. The fruit is of good size and of high color. The process of overcoming the many difficulties presented to fruit growers, where the winters are so cold as in Minnesota, is to grow, first from the seed, then from year to year to select the hardiest, and then to select the quality. The success attending this method has, during the last 20 years, had a remarkably favorable result all through the Northwest.

"Ohio has a good exhibit of pears, apples and grapes and other fruit. The Ohio horticultural society makes a highly creditable display. Several new grapes are shown which are likely to develop merit. A cross between the Concord and Delaware gives a grape smaller than the Concord and of the same color, and of a character inferior to the Delaware.

"Pennsylvania has a fair show of pears; that of apples is not large. New Jersey has a few individual exhibits which are scattered here and there. A new raspberry is presented as being hardier than any other. It looks like the Philadelphia.

"Massachusetts presents 300 varieties of pears, probably the best in quality in the exhibition. The attention paid to pear culture in this State, especially in the vicinity of Boston, has produced many sorts much superior to the Bartlett. It is likely that the soil is favorable. Connecticut has a good show of pears and apples, and samples of the best Delaware grapes in the exhibition. The District of Columbia has a first-rate show of pears. From New York Ellwanger & Barry present a full variety of all kinds of apples and pears. Michigan has the best show of winter apples, as it well may, for it has the most extensive apple orchards in the world, though Western New York might dispute with her.

"Decidedly the best show, taking into consideration variety, quality, number and taste, is from Ontario, Canada. The region where the fruit exhibited is grown is along the northern shores of Lake Ontario, Niagara river and Lake Erie; and receiving the influence of southwestern winds from over those waters, it has a 'water climate' peculiarly favorable to fruit."

G. C. Pearson.

Danville, Ill., Sept. 21st, 1876.

Many readers will recognize our correspondent as a resident of South Vallejo, Cal., who has given us formerly interesting letters on fruit production.—Eds. Press.

Fruit in Tuolumne.

Editors Press:—The troubles of business and labors of the garden have occupied my time so that the pen has been laid aside. But the fruit will soon disappear, the winter evenings call for occupation, the Rural be remembered. The fruit crop in Tuolumne county is enormous, but prices are low in proportion, although some of the choicest peaches command from five to six cents per pound in San Francisco. Mr. James Goodwin, of Mountain Pass, ships all his choice fruit below, realizing a handsome profit, but the fruit is of the very choicest quality. This fact shows producers that if they would succeed they must cultivate the very best in quality.

There is one experimental change with fruit growers in this county, which will have a bearing on future operations. The Chinese have bought the fruit of a great many orchards for purposes of drying.

The gardens about Shaw's Flat, Sonora and Columbia are swarming with Celestials, some drying on shares, others from purchase. This plan relieves the orchardists from risk and manual labor, and gives employment to the Chinese, who seem to be roughly handled in many places. Whether the dried fruit is destined for the home market, or for China, is for the future to demonstrate, but it will be the means of stimulating an increased production. Much fruit will be saved which otherwise would have gone to waste. I am inclined to believe that it is only the beginning of extensive operations in the fruit drying line.

This county never produced such a fruit crop as in '76, corresponding with everything else in this Centennial year of great and grand results. But the future has within its embrace the germinal seeds of greatness which from year to year will become apparent. These neglected placer ravines will bloom in purple and gold. The peach and plum, grape and vegetables will be made to yield a thousandfold, and the wealth which has flowed from will steadily flow back to enrich the citizens, and add still more to our natural facilities. Nature has done much to invite the rearing of happy homes and all connected associations, but the thirst for gold first defaced its virgin condition, and then abandoned the skeleton, so that the valleys and hillsides are but poorly clothed by nature or art. Time will supply the deficiency, and then Tuolumne's smiling valleys and cultivated hillsides will attract a better and more enterprising class of settlers, and the quantity and quality of her fruit crop be multiplied a thousandfold.

We do not advocate the employment of Chinese labor, or even the selling of the fruit crop in lump, but these things will regulate themselves. The present crop had to be gathered and attended to. No other means seemed so suitable to secure the fruit when ripe, for ripe fruit will not wait upon the convenience of any one, but must be attended to; hence the sale of gardens to the Chinese, who seem to have enough laborers to take advantage of conditions when favorable. This experiment of Tuolumne county will have its bearing on future operations.

John Taylor.

Mt. Pleasant, Sept. 15th, 1876.

The Vineyard.

Influence of the Stock on Wine.

A writer in the Adelaide *Observer* emphasizes the truth that to succeed in wine making there must be good grapes, in the following words:

The nature of the vine stock certainly plays the chief and most important part in the production of wines. It is undeniably to the quality of the fruit that all the best wines in the world owe their superiority. If you were to take away Carbenet from Medoc, Pinot from Burgundy, Pedro Ximenes from Xeres, and replace them by Black Portugal, Grenache, Mataro, Gouais or Sweetwater, you would only get quite second-rate and common wine. In nearly all the great vitical centers two totally different classes of wine are produced—fine and superior wines, and common wines. These two species of wine are never produced by the same kind of grape. Starting with this principle, we may arrange the different varieties of vines in two categories—fine and common stocks. It is easy to take note of the difference observed between the fruits produced by the different vines, for their composition is very varying. The elementary principles are the same, but their proportions differ; lastly, even in colored grapes, the coloring matter shows great varieties. These considerations lead us to recognize that the mixture and choice of stocks can be very efficacious in ameliorating the qualities of wine in a vineyard. This means is certainly the most natural and rational, but it is also one which demands the greatest judgment on the part of the viticulturist. If a vineyard produces wines whose color is poor or whose constitution is too weak, the color can be increased by introducing a vine whose grapes are very rich in coloring matter, and more body will be given with a vine which gives at the same time more sugar and tannin.

By combining vines which produce too sweet a wine with others which contain less sugary matter we will get dry wines. This varying proportion of sugar in the different wines must be seriously taken into consideration in the plantation of vineyards. Not only does the judicious admixture of vines allow the vine grower to get wines which possess certain known qualities, but by this means we can prevent the diseases to which the wines may be exposed, for often this spontaneous deterioration is due to the predominance or insufficiency of certain elements, and the re-establishment of the equilibrium will be sufficient to make these inconveniences vanish. The vines whose fruit contain much tannin are in these cases exceedingly useful.

The aim of the producer of fine wines should tend towards the obtaining of the maximum of produce both in quantity and quality. He will often, by intermingling the stocks with judgment, be able to increase the produce without injuring the quality. This is the system practiced in the neighborhood of Bordeaux. The vines which produce wines of superior quality are as a rule not very productive, and the result is that if we do not require a very high quality we can increase the quantity by intermixing the best vines with others whose produce is greater, according to the more or less high quality you may wish to obtain. One consideration which must not be neglected in the employment of stocks is that the time at which they reach ripeness is not in all cases the same. In planting them this important difference must be taken into account, and in small vineyards only vines whose grapes ripen at the same time should be cultivated; in large vineyards, on the contrary, it will always be useful to plant with each other varieties, which do not ripen at the same time, so as to get a space of time long enough to make the vintage under good conditions.

Lightning Rods.—Dr. Mann read a paper at the science conference at South Kensington, whose purpose was to show how unimportant is the form of lightning conductors, whether rods, ropes or pipes; and that the real desideratum is that they shall be of sufficient size to afford an unobstructed path for the passage of the electric fluid. He insisted on the necessity of a goodly number of points, and above all upon the indispensability of large earth contact, saying that a lightning discharge passing through a large rod with an amplo earth contact is only a gentle stream of low tension; but that, if the size of the rod or the area of its contact with the earth is diminished, the tension is increased, and the fluid has a dangerous tendency to discharge itself laterally by chance outlets.—*Journal of Telegraph.*

In Peabody's model buildings, London, the death rate is only 12 annually in 1,000, while the parish rate is 24½.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mntnal Fire Insnrance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Annual Meeting of the Grangers' Bank of California.

The annual meeting of the stockholders of the Grangers' Bank of California for the election of Directors for the ensuing year, and also to amend the by-laws if fonnd necessary, will be held at the office of the Bank on Tuesday, the 10th day of October, 1876, one o'clock P. M.

C. J. CRESSEY, Vice President,
No. 42 California street.

San Francisco, Sept. 11th, 1876.

COPIES OF THE CONSTITUTION AND BY-LAWS of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

P. OF H.—Subscribers who pay fully one year ($4) in advance for the PACIFIC RURAL PRESS can receive the CALIFORNIA PATRON *free*, or other premiums. See our premium list in another column.

Annual Meeting of the State Grange of California.

The First Day's Proceedings.

The Fourth annual session of the California State Grange commenced in Red Men's hall, Post street, San Francisco, Tuesday, October 3d. At 11 A. M., Worthy Master Webster opened the Grange in the fourth degree.

Officers present: J. V. Webster, M.; Nelson Carr, S.; M. Woodhams, A. S.; J. B. Carrington, T.; Amos Adams, Sec'y; Mrs. Mary E. Ivans, Ceres; Mrs. Nelson Carr, L. A. S.; J. B. Saul, G. K.

Officers appointed pro-tem.: Bro. Nelson, O.; Merry, L.; Cooley, C.; Sister Blanchar, Pomona; and Sister Manlove, Flora.

Committee appointed on Credentials: Adams, Hancock, Sims.

Order of business: Williams, Steele, Cooley, Blanchar and Smith. Adjourned to 2 P. M.

Afternoon Session.

Opened at the appointed hour. Committee on Credentials reported the names of members present. We will give the list next week.

The following from the Committee were adopted as the

Rules of Order:

1, Roll of officers; 2, opening; 3, reading of minutes; 4, report of officers; 5, report of Executive Committee; 6, report of Standing Committees; 7, report of Spscial Committee; 8, call of roll by counties for presenting business.

They also recommend that there be held two daily sessions for business, beginning at 9 A. M. and 1 P. M. Also an evening session, beginning at 7, to be devoted to instructions in the secret work and discussion for the good of the Order. Also that Friday evening be devoted to the conferring of the Fifth Degree and the Feast of Pomona.

Worthy Master Webster's Annual Address.

Brothers and Sisters of the State Grange of California:—As the legal representative of the Subordinate Granges of this State, you have assembled here to discharge a duty which, by virtue of the office you severally hold, has been imposed upon you.

Evidently you fully comprehend the responsible relations you sustain towards your several Subordinate Granges. For nothing short of a due appreciation of the situation and an earnest desire to faithfully discharge every duty which has been imposed upon you, would have induced you to leave behind your business, your homes and your loved ones, to come up here to work and to worship at the shrine of Ceres.

Since last we met in the capacity of a State Grange, another year with its busy life, intermingled with sunshine and shadows, has been cast in the mold of eternity and melted down by the crucible of time into the checkered ocean of the past.

A few familiar faces are missing, but their places appear to be well filled by equally earnest and intelligent representatives.

One year ago, when the State Grange was pleased to bestow upon me the highest honors within its gift, I hesitated in their acceptance, for the reason that I was fully conscious of the duties and responsibilities which they imposed. Impressed with this idea I have endeavored to redeem the pledges which I made to you at that time.

Conscious of the imperative necessity of retrenchment in every department of our work, we have endeavored to reduce current expenses to the lowest practical point consistent with reason. The salary of our Worthy Secretary, rent of his office and stationery, amounting, altogether, to about $200 per month, is the aggregate of our current expenses at the present time, with the exception of the cost of the sessions of your Executive Committee, which is required by our State Grange Constitution to hold at least one regular session during each quarter.

In order to save expenses we have simply complied with the law, no extra sessions having been called.

The expenses of the Executive Committee can, in my opinion be materially reduced without detriment to the utility of its work. Under a resolution which was adopted by the State Grange at its session in Stockton, each member of the Committee is entitled to receive $7 for each day expended in coming to, while in session, and in returning from the session of the Committee, besides actual traveling expenses.

It has occurred to me that each member of the Committee, all things considered, should be satisfied to receive for his services $5 per day for the time expended while in actual session, and legitimate traveling expenses in addition thereto. This arrangement would reduce the cost of the sessions of the Executive Committee at least one-half—an item worthy of the consideration of this body.

Being impressed with the conviction that certain changes should be made in our organic laws in order to make them more complete, the Executive Committee have recommended certain changes therein, which will, in due time, be brought before you for your consideration.

National Grange Constitution Amendments.

Fourteen amendments to the Constitution of the National Grange were adopted at the last session of that body; nine of said amendments have already been ratified by the requisite number of State Granges to make them parts of the supreme law of the Order. The remaining five, numbers 2, 8, 9, 11 and 12, it will be necessary for this Grange to pass upon. One of the amendments regulating the dues of Subordinate Granges, which is among those already ratified, transfers the authority to regulate the dues of the members of Subordinate Granges from the National to the State Grange. In my opinion this authority should be transferred from the State Grange to the Subordinate Granges, for neither the State nor National Grange should presume to dictate to the Subordinate Granges the amount of dues each member should pay, for there is a provision in our State Grange Constitution which regulates the dues each Subordinate Grange shall pay per capita for its members to the State Grange, consequently it is none of the business of the State Grange how much or how little dues a member shall pay to his or her Subordinate Grange. That is the legitimate province of each Subordinate Grange to determine for itself.

Subordinate Grange Elections.

In my correspondence and personal intercourse with Patrons during the past year, many have suggested the propriety of changing the time as now provided by law for the election and installation of officers of Subordinate Granges. The objection to the time as fixed is, that the election and installation comes in the midst of winter when the roads are often almost impassible, consequently the attendance at said elections and installations is usually small and uncertain. September or May is suggested as a more appropriate and convenient time. It is possibly expedient for this body to adopt some general regulation concerning the case, or at least recommend the change in Subordinate Grange By-Laws.

Mileage.

As a matter of equity the Executive Committee, at its last regular session, adopted a resolution providing that the actual traveling expenses of the members of this body, in excess of the amount expended in traveling 200 miles, should be paid out of the State Grange treasury. It will be necessary for the State Grange to ratify this resolution in order to make it legal, as it is in conflict with a provision of our By-Laws.

"California Patron."

Feeling impressed with the necessity of establishing a medium of communication between the Executive officers of the State Grange and the officers and members of all the Subordinate Granges, we suggested to the Executive Committee, at its March session, the propriety and expediency of issuing a monthly bulletin, to be known as the *California Patron*. After due deliberation the Committee adopted a resolution providing for the publication of such a paper—provided it could be done without any cost or liability on the part of the State Grange—and authorized me to make the best terms possible with some responsible firm in this city for its publication. After meeting several times in conference with my constituted associates, Bros. Adams and Merry, we entered into an agreement with the firm of Dewey & Ewer for its publication for the term of six months from that date, said firm agreeing to publish the paper for what they could make out of the subscription list and advertisements—they simply paying Bro. Merry $10 per month for preparing for publication the minutes of the proceedings of the Executive Committee and such other matter as might be placed in his hands. Said agreement with Dewey & Ewer further provides that, at the expiration of the six months for which the contract was made, (and which have now about expired,) that the Executive Committee or the State Grange should have the reserved right—it in their discretion the best interest of the Order demanded it—to withdraw the official patronage of the State Grange, or to take the paper at its appraised value, or to continue the publication upon its present basis.

A committee should be provided for by this body and the matter referred to them for their adjustment, on which a report should be made during the present session.

The Grange corporations located in this city, and intimately associated with our Order, are doing a very large business.

The Grangers' Bank, a corporation which which has been in operation but little more than two years, has in that short time grown from nothing into a prosperous institution. A healthy increase in business has marked every month of its existence. The actual number of depositors for the present year is 228, against 162 for the year 1875, an increase in favor of 1876 of 66. The amount of commercial deposits received in the bank for the last 12 months up to September 25th, 1876, aggregate $2,370,000. For the same period of 1875, there was deposited $1,820,000, which is an increase in favor of 1876 of $550,000. The amount disbursed for first dividend, declared last year, aggregated $38,117.60, being $1.55 per share, or 7¾ per cent. on capital paid up. The prospect of the next or second dividend to be declared next month at the annual meeting of the directors bids fair to be 10 per cent. on the capital stock paid up, which will be equal to $3 per share, besides leaving a reserve fund of several thousand dollars.

The Grangers' Business Association, which was incorporated one year ago last February, although embarrassed in consequence of not having sufficient funds to conduct the business as it should have been conducted, and having much opposition to contend with, nevertheless is gaining in strength and is doing much good in the reduction and equalization of commissions; and it is gaining in reputation as a responsible shipping and forwarding house, needing only proper support to make it a grand success. We understand that the Directors, at the next annual meeting of the stockholders, will be able to declare a small dividend of profit on the capital invested.

From a very flattering statement which I have received from the President of the California Farmers' Mutual Fire Insurance Association, I have copied the following figures: Cash plan, October 1st, 1876: Amount risks written to date, $2,585,914.19; premiums theron, $51,606.96; losses paid, $10,703.71. Mutual plan, October 1st, 1876: Amount risks written to date, $5,181,591; total premiums thereon, $114,395.30; losses paid, $7,251.

The past year's work of the Order in this State has been one not without embarrassments. One of the losses most seriously felt has resulted in consequence of the continued absence of our Worthy Lecturer for the entire year. No substitute has been appointed, for the reason that we have, from correspondence, been under the impression that Bro. Wright was likely to return almost any day for the last nine months. In consequence of his absence many Subordinate Granges have had no assistance in the work of the Order, other than that furnished by the District Deputy. In consequence of his inability to perform the work allotted to him, Bro. Wright has formerly tendered his resignation as Lecturer of the State Grange, which should be acted upon by this body, and some one selected in his stead for the ensuing year.

Condition of the Order.

The financial misfortunes of the farmers which resulted in consequence of the failure of the house of E. E. Morgan's Sons, at the time paralyzed the Order in some sections of the State, from the effects of which many Granges have never recovered. We have done all in our power for the last year to aid and encourage them, but nevertheless some of them are dead, without the hope of redemption; some others are weak and inactive, principally because many curious and designing persons were, in past years, admitted to the Grange without regard to their qualifications. Curiosity seekers are now satisfied, so are the Granger politicians, and place seekers are satisfied that their services are not appreciated, and the whole-souled, positive Patrons of the land have been engaged clearing their Granges of the worm-eaten trunks, decaying branches and other rubbish which has fallen to the ground during the past year.

The most active work has been accomplished in those Granges in which pecuniary interests have been developed. However many may be the charms of the social and intellectual intercourse of the Order, experience has fully demonstrated that they of themselves are not sufficiently attractive to induce a regular attendance at the meetings of the Grange. Life is too short, and its duties and responsibilities too many to spend much time in formalities.

This is eminently a utilitarian age, and every one is growing in the conviction that in order to live successfully and to some purpose, time and opportunities must be utilized and resources concentrated. The work of the Order should be systematized to such an extent that the duties of the Grange could not be considered burdensome. Grange meetings should be called only when the interest of the Order required them. But in cases of emergency, when a call for a meeting shall have been made, there should be sufficient authority somewhere to compel attendance of the members. The proper person to be invested with this authority is the Master of each Subordinate Grange; and, in my opinion, this body should incorporate in our Constitution a provision empowering the Master of each Subordinate Grange, in cases of great emergency, to issue an order requiring the attendance of the members; and, in cases where the order was disobeyed, such member or members disregarding such orders should be liable to suspension.

In order to accomplish anything in the direction of united action, we must keep up our organization, which should be done at the least possible expense and inconvenience to the members thereof. If the Master of each Subordinate Grange had sufficient authority to compel the attendance of its members in times of great emergency, the organization would be secure. This would, in a measure at least, relieve us of the anxiety and necessity of having more than one meeting in each month, knowing that the Master of the Grange would, when urgent necessity required, issue his order calling the members together.

Co-operation.

The subject of co-operation in connection with the business features of our Order is one which has been very extensively discussed, but apparently very imperfectly understood. The subject of international co-operation was prominently before the last session of the National Grange. The Executive Committee of that body have been in correspondence with the co-operatives of Great Britain during the past year, and the subject will come up again at the next session of the National Grange for final action.

The subject is one worthy of the serious consideration of this Grange, for whatever differences of opinion there may be concerning the practicability of international co-operation, it must be admitted that many of our most signal successes have been achieved through local and State co-operation. Co-operation is simply concert of action. By strictly adhering to this principle many evils which now embarrass the individual Patron may be corrected. Of course, there will necessarily be individual cases of failure in every department of enterprise, but wherever co-operative associations have been formed in our Order, and managed by business men on business principles, success has crowned every such effort.

Resignation.

It is with regret that I have to report to you the formal resignation of Sister Baxter, as Pomona of our State Grange. She has served you in that capacity so faithfully and proficiently that it would be becoming on the part of the State Grange, in accepting her resignation, to tender her our sincere thanks for past services and deep regret because of her resignation. It will be necessary to have some one to serve you in the capacity of Pomona, in conferring the Fifth Degree, which will take place some evening during the present week, and I would respectfully suggest that an election be held to-day or this evening, that the sister selected may have time to prepare for her part of the ceremony.

In conclusion, allow me to say that we have come together here for earnest work. Much of the future prosperity of the Order in this State depends upon the action of this Grange. From the firmness and intelligence which I behold I feel assured that every issue will be fairly met and properly disposed of, so that when you return to your constituents you will be able to meet them with the consciousness of having performed your whole duty. In the work which is before us let us endeavor to dispose of it intelligently, calmly and dispassionately. Let harmony prevail, and every moral and social virtue cement us.

Report of Worthy Lecturer.

Jeannie C. Carr read (by the author's request) the annual report of the Worthy Lecturer, J. W. A. Wright, written at Greene Springs, Alabama. Also his resignation from office. Both accepted. Thanks were unanimously voted to the Lecturer for his noble and devoted services, and to Sister Carr for her able reading. Further of the report will be published hereafter, also the report of the Secretary.

W. S. Manlove read the annual report of the Executive Committee, which was ordered on file. He also strongly recommended reading the minutes, at this session, of the Committee's meetings during the year. Recommendation adopted.

Resignation of Sister Baxter, Pomona, accepted. Unanimously the Grange gave thanks for her valued services. On the first ballot Sister Manlove, of Sacramento, was elected Pomona.

Evening Session.

On the Good of the Order, among other subjects, the matter of accounts with Subordinate Granges and officers was discussed, and a Committee on Accounts was appointed.

Wednesday Morning Session.

Opened in due form. The Worthy Master appointed the following

Committees:

Resolutions.—Haile, McConnell and Sister Dewey.

Publication.—Carpenter, Tucker, Dudley.

State University.—Carr, Saul and Sister Barber.

Constitution and By-Laws.—Inman, Jones, Fassett.

Irrigation.—Gardner, Gregory and Phelps.

Commercial Relations.—Soule, J. M. Thompson, Hallet.

On Appeals.—Cooley, Horner, Blanchar, and Sisters Blanchar and Mothersead.

Education.—Spilman, Hancock and Sister Carr.

Co-operation.—Merry, Manlove, Steele, Logan, Pilkington and Sister Ivans.

On Accounts.—Carr, Strentzel, Wilcox.

Amendments 1, 3, 4, 5, 6, 7, 10, 13, 14, to Constitution of the National Grange, declared adopted by National Grange.

Amendment to Sec. 1 of Preamble, conferring upon wives of Pomona delegates full membership in State Granges in States where delegates are elected by counties, ratified.

Amendment to Sec. 2, Art. II, conferring power on State Granges to meet annually or biennially as they see fit, was ratified.

Amendment to Art. VI, granting the right to

State Granges to fix their own membership fee, ratified.

Amendment to Sec. 1, Art. VII, granting the State Granges full power to regulate monthly dues in Snbordinate Granges, ratified.

Afternoon Session.

Amendments to the National Grange Constitution were ratified. Amendments to State Grange Constitution were considered. We will hereafter give a list of all amendments carried.

Roll of counties called for presentation of business, and the matters offered referred to appropriate committees.

Amador—Resolution on freight and fares; on commeroe; also one on industrial interests; on State debts; on National indebtedness. All Referred to special committee of Carpenter, Horner and Logan.

Notice of amendment to Art. I, Sec. 2, to provide for the election of officers of Subordinate Granges in April and installation in May.

Napa proposed Committee on Music to further the social features of the Grange.

Sacramento offered resolution that State Grange should pay expense of the delegation composing it. Referred to Committee on Constitution and By-laws.

San Joaqnin offered resolution inquiring into the contract and arrangements for publication of the *California Patron* and the expediency of oondnoting its publication. Referred to a special committee of Bagge, Jones and Coulter.

Sutter offered a resolution upon the snbject of mining debris.

Yolo presented a resolution favoring the immediate prosecution of the Panama ship canal by the Government.

T. H. Merry offered a resolution to the effect that all Grange corporations should make quarterly reports to the Executive Committee of State Grange. Referred to the Committee on the Good of the Order.

Resolutiou to abolish all degrees above the fourth, by Cadwell, of Santa Clara county, referred.

Blakie Pilkington, of Santa Crnz Grange, was elected to fill the office of Worthy Lecturer for the unexpired term. Voted to omit Thursday A. M. session.

The meeting of so many cheerfnl countenances and hearty greetings and handshakings by the hardy sons and daughters of rural industry, from all parts of the State, is an occasion of more than ordinary interest and delight. Music and harmony abound within the cirole. We regret that our space cal ls for a condensed report. It will be oontinued. The wheat growers held a large meeting Monday evening, which we are not at liberty to report at present.

From the Granges.

Fairview Grange.

A oorrespondent writes from Anaheim, Los Angeles county, as follows: Fairview Grange has completed its new building at the depot and held the first meeting in the new building on Saturday, September 23d. Hereafter there will be discussions npon farming matters at the regular meetings. At the last meeting the discussions began. It is thought that unless something of this kind is done people lose interest.

SONOMA COUNTY DISTRICT GRANGE.—The Sonoma County District Grange held a quarterly meeting in this city on the 20th ult. Delegates were present from Bennett Valley, Sonoma, Healdsburg, Sebastopol, Two Rock, Cloverdale and Santa Rosa granges. Considerable business was transacted for the good of the Order. The annual election of officers was held, resulting as follows: B. B. Capell, of Healdsburg, Master; C. H. Cooley, of Cloverdale, Overseer; G. N. Whitaker, of Bennett Valley, Secretary; and N. Carr, of Bennett Valley, Treasurer. A general good feeling prevailed, and all went home well pleased with the work and exercises of the day.—*C. M., in Sonoma Democrat.*

THE handsome bonquets which adorned the officers' desks at the State Grange meeting were contributed by John S. Collins, Sec'y of Temescal Grange.

In Memoriam.

HAMILTON GRANGE, Biggs, Butte Co., Sept. 16th, 1876:

WHEREAS, Hamilton Grange has, by Divine Providence, lost a beloved member by the demise of brother WILLIAM CROSS, who passed to a higher tribunal on the 27th day of August, A. D., 1876; and

WHEREAS, He was a good and efficient member of our Grange, an honored and much respected citizen, a kind brother and affectionate son; therefore, be it

Resolved, That Hamilton Grange tenders to the bereaved friends and relatives our heartfelt sympathy.

Resolved, That these resolutions be published in the RURAL PRESS, and a copy sent to the bereaved family of deceased.—[Committee: W. W. Stone, M. A. Randall, Anson Brown.

SAN BERNARDINO GRANGE, No. 61.

WHEREAS, By the inscrutable decree of our great Master, death has again entered our Grange and taken from our midst our brother, E. H. THOMAS; and while herein we recognize the infinite wisdom of Him who doeth all things well,

Resolved, That in the death of Bro. THOMAS our Grange has lost a true and worthy member, his children a kind and indulgent father, and the community an upright and exemplary citizen.

Resolved, That we deeply sympathize with the family of the deceased in their bereavement; that these resolutions be spread upon our record; that a copy be sent to the relatives of the deceased, also to the RURAL PRESS for publication.—[Committee: R. Shelton, H. Suverkrup, J. D. Osterhout.

AGRICULTURAL NOTES.

California.

CONTRA COSTA.

FRUIT AND FRUIT TREES.—Antioch *Ledger*, Sept. 23: The commonly expressed opinion of early settlers in this vicinity, that fruit trees would not matnre and bear, has been exploded by the past few years' experience. All through the valley one sees yonng orchards which present a most thrifty appearance. Apples, pears, plums, apricots and almonds grow without stint with little care and attention. Mr. William Darby bronght to town this week a quantity of almonds from trees only four years old, which are equal in size and flavor to those grown in Los Angeles or San Diego counties, Our farming population have no excuse whatever if they do not raise fruit in abundance. A goodly number have during the past two years planted orchards and vineyards, and in a few years we shall have no need of shipping frnit from San Francisco.

GOOD OATS.—*Gazette*, Sept. 30: Mr. H. M. Hollenbeck, of Alhambra valley, had on exhibit at the fair a sample sack of a 30-acre crop of Somerset oats that gave an aggregate yield of 59,940 pounds, and an average of 1,995 pounds per acre. The grain is from seed originally received from the patent office three years ago, the product from about a quart first sown being sown again last year, the yield furnishing the seed for the present year's crop—which pnt in late in the spring on ground intended for wheat, but which was too wet for sowing at proper season. The grain is a white variety that will give a large weight to the bushel, and the yield is certainly a remarkably good one for so late a sowing.

EXCELLENT HOGS.—The Edwards Brothers drove up from their ranch on the Carquinez straits and shipped to the city, a few days since, one of the finest droves of Essex breed hogs we have ever seen go from the county.

FINE POTATOES.—A sack of Early Goodrich potatoes was shown at the fair by Mr. John Anderson as a sample of a crop raised on the ranch of Mr. Charles S. Lohse, the average yield of which was 40 sacks per acre. We have never seen fairer or more attractive looking potatoes of desirable size than the sample shown.

FRESNO.

FARMS IN FRESNO.—*Expositor*, Sept. 27: The fertility of our soil is a demonstrated fact, and when water can be procured for irrigation no part of California can rival the plains of Fresno county in productiveness. We are led to these remarks by the great success which has attended the efforts of those farmers who have practiced irrigation in a thorough manner. We visited lately the Gould farm, now owned by Mr. Cooper, of San Francisco, and were politely shown over the premises by the superintendent, A. A. Fuller, who, with the assistance of his estimable wife, has conducted the place for about three years. This farm is a fair sample of what can be done with Fresno land if irrigated. Thousands of trees and vines of almost every variety adorn the grounds, and are as thrifty as any that can be found in the "crack" fruit growing region of our wonder-producing State. Peach and fig trees in endless variety, bending with loads of luscious fruit that cluster on their branches, and vines laden with juicy grapes of excellent qnality, were to be seen on every hand. We were shown seedling peach trees, which were less than three years old, and heavily loaded with frnit, as fine as ever we ate. Watermelons grow almost wild about the premises, and are so abundant that they are looked on with distaste. The present proprietor of this place will, we understand, make many improvements about the place another season, and it will be but a few years before the farm will be pointed to with pride by the Fresnoites. Mr. Aug. Weihe's farm, south of town, is another point of great interest. This place has been greatly improved under the supervision of the efficient foreman, J. D. Forthkamp. Unfortunately, the growth of the fine trees and plants have been retarded by the uncertain water supply of last year. This year, however, we learn, owing to a more regular flow of water, the farm has greatly improved in appearance. Mr. Weihe has spent a great deal of money in experimenting with different trees and plants, and we are confident his efforts will soon be rewarded, as it will not be long before he will possess as beantiful and valuable a place as there is in the San Joaquin valley. The Eisen vineyard is another striking example of what water will do. Here in three years' time 120 acres of grapevines have been brought to a high state of productiveness. The rarest qualities of vines are planted in this vineyard, and this season the yield of grapes has been enormons. The fruit, too, is of the finest quality, and shows conclusively that Fresno county is the natural home of the grape. No mildew or other malady affects the fruit, which is large and luscious, and hangs in clusters gratetul to look at. For several weeks past the powerful machinery of this farm, run by water power, has been engaged in expressing the juice from the grapes produoed on the place, and over 20,000 gallons of wine will be made this season. Prof. Gustav Eisen, a man of education and refinement, is superintending the farm. It is proposed to make it the leading wine farm on the Pacific coast.

KERN.

WEIGHT.—*Californian*, Sept. 28: A sweet potato, weighing nine pounds exactly, from the ranch of Dr. Stockton, may be seen on our table. It makes a nice little paper weight. This is but the beginning. Last year he brought us one weigbing 15 pounds, and he expects to produce many of that caliber this year.

LOS ANGELES.

E. J. BALDWIN'S RANCH.—Cor. *Chronicle:* At the invitation of E. J. Baldwin, of San Francisco, I visited his rancho Santa Anita, 12 miles east of this city, where he is at present snpervising his extensive improvements, having a large number of men constantly employed. The rancho Santa Anita contains 8,500 acres, and lies in the orange belt skirting the base of the San Gabriel mountains. The climate is delightful, the outlook grand, and the scenery romantic. During a portion of the year, while the orange, the lemon and the quince grow, and the vine is loaded with delicious fruit, just above the snow-capped San Gabriel towers in cool magnificence, overlooking this tropical scene, forming at once a charming and wonderful contrast. The ranch affords sufficient water to irrigate 50,000 acres, and is utilized for varidus other pnrposes. Mr. Baldwin has expended $30,000 in perfecting his facilities for the manufacture of wines, and has one of the most complete establishments of the kind in the State, combining all the latest improvements adopted in Europe or the United States, and in common with other grape culturists feels that protection is needed to encourage this, one of the leading industries of the State. There are at present on the ranch 10,000 orange trees (many of them bearing), 4,000 lemon, 2,000 almond, 2,000 mulberry, and 15,000 eucalyptus. There are 90 acres in walnuts and other choice varieties, and 300 acres in vineyard. Bananas (bearing), palm, olive, pepper, magnolias, chestnut and a great variety of evergreens are growing with tropical luxuriance. Mr. Baldwin says that it is his intention to commence immediately to build comfortable tenement houses on his lands—of which he has abont 60,000 acres in Los Angeles connty, to rent or sell to settlers on reasonable terms, as he believes the best interests of the country require the land to be owned in small quantities, and improved for homes by actual settlers. He has now ready for use nearly 300,000 bricks, mannfactured here, to be used on the place. He has in contemplation the building of a residence at a cost of a quarter of a million of dollars. As is well knowu, Mr. Baldwin is the owner of some of the best blood stock in the country, and he is having a fine training park prepared for fast horses. A stock company is being formed to construct and put in operation a street railway from the city of Los Angeles to the rancho Santa Anita, passing the ranches of General Stoneman, Colonel Kewen, Bacon & Rose, all ranking among the largest orange and wine growers in the State.

MONTEREY.

THE MUSTARD TRADE.—Salinas *Index*, Sept. 28: Very few people have an adequate idea of the magnitude of the mustard trade in the Salinas valley. As an instance of this remunerative industry which is quietly carried on in onr midst, we may mention the fact that, for the week ending yesterday, S. M. Shearer, Esq., of this city, bought 1,107 sacks of mustard seed, aggregating 101,168 pounds, and making over five carloads. The mustard is gathered and threshed by Chinamen, the price paid them ranging from two cents per pound upwards, according to quality. Besides Mr. Shearer, there are other dealers here who purohase and ship large quantities of mustard to San Francisco, it being estimated that at least 400,000 pounds of it have already been shipped from the valley this season.

RUSSIAN CLOVER. — *Democrat:* Mr. Jacob Metz has growing in his yard, to the hight of full nine feet, what he oalls Russian clover. He planted a few seeds as an experiment, that noted above being the highest growth. The main stalk, npon reaching the surface of the gronnd, gives way to a great number of shoots or stems. These, when the yonng plants have advanced in growth, lend to it the appearance of a miniature banyan. This kind of clover sends forth a white blossom three to four inches in length. Stock feed on it with avidity, and it is so prolific a plant that there is no doubt that a field of this variety would for such purpose make handsome returns. Mr. Metz, who is an experienced and thorough farmer, estimates that on land whioh will yield per acre two tons of wheat or barley hay, 15 tons of Russian clover can be raised.

SACRAMENTO.

THE WASHINGTON LEVEE. — *Record-Union*, Sept. 26: A pile-driver commenced yesterday upon the work of driving 300 feet of piling to proteot the levee in front of the ranohes of Reed and Waters, near the npper end of the town of Washington, and the work will be pushed forward rapidly. The piles are about 72 feet long, and it is the intention to plank them up to about two feet above high water mark, that the cnrrent may be kept from the levee. The levee in front of the town has been raised and strengthened thoroughly under the superintendonce of D. H. Woods, the last work upon it being done yesterday. Sill & Lee, of Woodland, who have the contract for repairing the levee below the town where the break ocourred last winter, commenced work yesterday. It is the intention to set the levee at that point well baok from the bank of the river, and for the constrnction of the section necessary about 40,000 yards of earth will be required.

SAN JOAQUIN.

HOPS.—G. C. Holman writes to the Stockton *Independent*, date Sept. 20: Next week will be the close of the hop picking season. The yield will not be more than two-thirds of that of last season. This is owing to the extreme high water that prevailed last spring and summer, keeping the ground cold and too damp. The quality, however, is excellent, and with the great care taken in picking and cnring, they will compare favorably with the best raised in the State. Last year I shipped my product to New York and they sold at the same price as the celebrated Willow Grove brand. The industry is becoming quite an important one and eventually will rank among the valnable resources of San Joaquin county. The present acreage is about 150; the yield this year will be about 1,500 pounds per acre. Last season old fields went in some instances as high as 2,000 and 2,500 pounds per acre. The soil of the Mokelumne river bottom is a sandy alluvinm, well adapted to a vigorous growth of hops. We have thousands of acres that can be utilized for this crop. The present growers are: Joseph Putnam, 15 acres; Jerome Rider, 25 acres; Thomas Clements, 40 acres; Megerle Bros., 30 acres; Edward Whipple, 10 acres; G. C. Holman, 15 acres: Adkins, 7 acres; Jesse B. Greene, 4 acres; others, 4 acres.

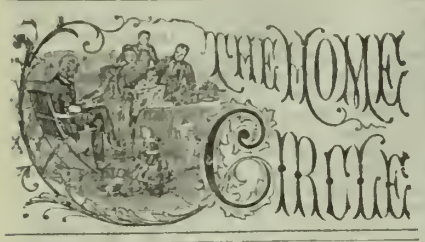
VALLEY WHEAT CROP.—Cor. *Bulletin*: Early in May the wheat crop of the San Joaquin valley was estimated by competent anthority at 360,000 tons. Since threshing it has been ascertained that the estimate was too high, and required a reduction of 60,000 tons. This leaves the entire yield for the present harvest year at about 300,000 tons, a little less than a two-thirds average crop. The cause of a deorease is attributed to rust generated by the hot weather which followed the last showers. As an illnstration, a ranch near Stockton was set down at 20 bnshels to the acre. The stalk was high and the ears appeared full, bnt when threshing was over the yield, instead of being 20 bushels to the acre, was only three. The vegetation was so prolific, however, that the hay on adjoining land sold at the rate of $4 to the acre. West Side, notwithstanding the rains, has not done so well as anticipated. The crop is only about 11 bushels to the acre, instead the expected 20 or 30. San Joaquin county has only produced about a two-thirds average crop. The yield as a whole has been about 12 bushels to the acre. The soil of this connty may be divided into three classes, adobe, sand and npper, next the foothills. There was a little too much rain last winter for adobe, and only a half crop was obtained in consequence. The farmers on the adobe soil always do best in a general bad year, because their land does not fail and prices run higher. In Stanislaus county, excluding that portion on the west side, the yield has been almost 11 bushels to the acre. Merced county is spotted. In some portions as high as 30 bushels has been harvested, while in others five or six bushels is considered a fair average crop. Merced, on a small scale, represents the State at large. If one section does badly, another amply repays the labor of the husbandman. For this reason it is safe to calculate that whatever may be the season, the State can never have less than 400,000 tons for export—a consoling circumstance to the bread eaters of England, and at the same time insuring general commercial prosperity to the State as a whole.

SANTA BARBARA.

LOMPOC FRUIT.—*Record*, Sept. 23: We have a variety of peaches, apples and quinces from the yonng orchard of J. W. Cooper, of the Santa Rosa rancho, all of which will compare well with like fruit of the more favored regions of this coast. The peaches were of late varieties bnt were large and luscious, and will be abundant until the first of November; the apples, consisting of Bellflowers, Newtown Pippins and several other varieties, were of more than average size and quality; the quinces, of the orange variety, were marvels of beauty, being large, ripe and fragrant. Every doubt is now dispelled respecting the produotion of all varieties of fruit. The Santa Rosa embraoes thousands of acres of ohoice fruit land, and Mr. Cooper contemplates planting an orchard of 25 acres.

AGRICULTURAL LANDS.—J. B. Shaw, in Santa Barbara *Press:* The production of over 200,000 sacks of grain, attributed to Santa Maria, ought to have been oredited to the valley of Guadalupe. These two rich valleys, situated in the northern part of this oounty, which, as yon recently stated, were bnt a few years ago almost unoccupied, or had but partially recovered from the total destruotion of cattle by the terrible drouth of 1864, are now entering upon an era of development and certain prosperity little dreamed of as being possible by the earlier settlers in this part of the State. How very little is known by visitors, or even by the majority of residents of this city, of the fertile tract of country beyond the range of the Santa Ynez mountains, lying to the westward of the old stage road leading from here to San Luis Obispo. First, on crossing the mountain, the valley of Santa Ynez, whioh has, as yet, but 4,000 or 5,000 acres of its 100,000 nnder onltivation. Experts have prononnoed four-fifths of this valley as being first-class wheat land; positive results confirming this opinion. Second, the valley of Los Alamos, oontaining tens of thousands of acres of equally good wheat land, and which is only now being opened np for settlers. To the southward, Santa Rita, La Purisima and Lompoo valleys; the San Julian, and the other ranohos towards Point Conoeption, with the Jesus Maria and Casmalia to the westward.

Continued on Page 244.



The Real and the Ideal.

[Written for the RURAL PRESS by VITAL E. BANGS.]

A Coincidence.

EDITORS PRESS:—On opening the RURAL PRESS of the 23d inst. I was surprised to find a piece of poetry by Philmore, entitled the "Ideal and Real." Surprised, because, before I had time to reflect and had time to read more than the title I imagined that my own piece, by the same name, designed for the same place and written two days before, had, in some unaccountable way, got into the PRESS office; but I was soon undeceived. I suggest that Philmore send me his next subject, that I may know what not to write.—VITAL E. BANGS.

Modesto, Cal., Sept. 24th, 1876.

The Real and the Ideal.

The real to the sensee oft reveals
Unwelcome facts; the ideal oft conceals
All sorrows and all dangers in its dream
That wait as eharke within life'e peaceful stream.

One ie the eubstance of a column grand,
Earth-horn and raised at labor's etern command;
The other is the language that it speaks
When Corinth's glory on the vision breaks.
The one is merely shelter 'gainst the storm,
The other keeps the imagination warm,
That, when the north-wind of mishap shall blow,
It may surmount the region of our woe.

The real is the standard of all sense,
That meaeurce all the works of providence;
'Tis that which metee to all one life, one fate,
Makes timo a friend or foe that will not wait,
But drives, or kindly leade ue to our goal,
Where parte with pain or pcaceful joy the soul.

The real ne'er can satisfy desire,
Nor fill its aching void, nor quench ite fire;
Tho' oft it many eolld comforts brings,
Which are too heavy for ethereal wings.
And even when sad man repines at fate,
On *terra firma* he prefers to wait
And hattle, like the soldier, for the right,
Tho' flowery visione lure to inglorious flight.

The ideal kindly seeks the void to fill;
Forever felt, it is the tiny rill
Sent eastward through Nevada'e grateful shade
To greet the desert with one verdant blade,
And, though engulfed in wavee of drifted sand,
It pointe, as with a finger of a hand,
The place where sparkling fountains ever play,
Where crisp July e'er seems as verdant May.

O, dull on earth were man's familiar lot,
Without hright Fancy's plot and counter-plot;
Too brief were time hefore the mortal hour,
Without bright Fancy's multiplying power.

Centennial Chat—No. 9.

[Written for the PRESS by MARY MOUNTAIN.]

A last day at the Exposition is about as bewildering as the first, for although one has learned by this time pretty nearly what can be done, there is still a painful urgency to undertake too much.

Our own leave-taking was much comforted by the hope of a few cooler days to be spent here on the return trip to California, and as I shall then gather fresh material, this letter will condense the final gleanings of Note Book Number 1; and to give the reader some idea of the mental jumble one falls into during a rapid survey from building to building I will copy those last notes almost as they were written while walking past the objects mentioned.

At the Glass Works

The red hot furnaces glare out upon the men, who work with swift, steady skill in the face of gasping crowds who move up and move on with a languid wonder over the beautiful works and the marvelous endurance of the workmen. You can order a set of goblets with your initials and the Centennial date stamped upon the graceful sides, but it is very doubtful if you could stand there long enough to see them through the first melting process. The delicate vases filled with crystal flowers and grasses, would be a worthy memorial and a "joy forever" if they could be safely placed upon the far-off home brackets, but a liberty bell butterplate is better suited to run the gauntlet of the baggage smashers.

Down through the long saw-mill, where a few forlorn pilgrims sit, drowsily catching an imaginary breeze; hastily through the noonday blaze to the upper end of machinery building, where a drift of sweetest music winds through and above the mad clamor of a thousand discordant noises—how it leads us; how it draws us right into the midst of the Old South tobacco works, where a quartette of negroes assort, roll and twist, with almost a melody of movement as they sing

The Old Plantation Songs.

Still we hear the wonderful music as we step around to the widest loom in the world. "Is it really the widest?" we ask of the quiet woman who watches the shuttle, and she says, "Yes, it is one of the widest; two or three others are also weaving this sort of cloth, 25 feet wide, for the foundation of floor oil-cloths." The New York *Times* is printed here, and copies given away to those who happen to surround the press just as the work is finished. Many reach anxiously for the paper and then look disappointed as they find simply the New York daily, which contains no special hint or help for us as sight-seers. Advertising fans are given away at the stand where Mrs. Potts has new inventions in fluting irons, kettles and other hardware, and what a refreshing jollity where everybody is laughing at the absurd pictures of the highly illustrated fans.

A Magnificent Grain Drill

Shines superbly in its glass case, with such glitter of polish, gilding and varnish as will sorely try the eyes, and perhaps the patience, of plain farmers, who can hardly see the use of such absurdly expensive farming tools. Of course America takes the lead in these exhibits and I think her wonderful work would be really more impressive if it were not quite so dazzling.

The giant corn-sheller, dustless corn cleaner, flour packer, and various similar devices from Illinois, challenge all the world and Yankee land to produce milling machinery of equal excellence. Gas engines, valveless engines, petroleum engines, road steamers, farm locomotives, huge machines for cutting coal, for breaking stone, for polishing, scouring, burnishing, grinding, crushing, sawing, drilling, freezing, lifting, plowing, mowing, threshing, tanning; for chopping sausage-meat, making hash, and hatching chickens. The claims of rival machines are too much for me. Are they not written in the careful chronicles of Editorial Correspondence? But the faces of these owners and inventors I can understand. How they brighten with hopeful eagerness as the brother mechanic stops to study their special hobby, and with what zealous patience they begin, again and again, to go over the familiar steps that lead straight to their own pet theory. But how the light fades if "the brother" marches on in quest of new wonders, and cares nothing for the "latest improved saw sharpener" or the "excelsior stump-puller."

Up in the tower we see exactly how big bells and little bells are played upon to produce the chimes of sweet old tunes every afternoon near the hour of closing; and a

Wonderful Tower Clock

Holds all its secrets open for our inspection. From the galleries leading to the tower the world of machinery seems spread out before you, and departments of the different nations are easily traced as upon a map, while the eye catches sights that range from the sublime to the ridiculous.

The magnificent Corliss engine fills the ideal of sublime power in machinery, and for the ridiculous there is the bad little boy who screams and dashes his mother's bag of popcorn over the floor because she won't give him the gay Austrian flag at the entrance of that department. At this moment the great engine stops, and the little boy stops; everything stops, and the mighty noises are followed by an astonished hush that almost puts your ears out of joint. So we trot off to the main building, where, in the central place of honor, now stands the

Memorial Solid Silver Vase,

Lately presented to the poet Bryant; not polished, no glitter to attract the eye, but the work is beautiful.

Portugal has finally got its house in order; or rather its department, where we found some days ago the jovial Yankee carpenters at work putting up the fixtures that are now covered with ribbons, gimps, tassels, porcelain, hats, delicate glassware and carved work, handsome fabrics of every style and color; but the carpenters have disappeared; also the ancient cultivator with three stiff legs and straight, pointed feet; also the ghostly old water-wheel, found in a mine that had been abandoned several hundred years, and supposed to be the oldest water-wheel in the world.

Turkey has a case of very perfect sponges, (some pieces as large as a coffee-cup are offered for sale at $8); odd musical instruments, inlaid work, oriental silks, sashes, smoking caps, and shawls; a case of old coins, gold, silver, copper, lead, stone, some dating 2,600 years back, all worn, battered and said to be genuine.

Sweden is full of interest. In the foreground is a full array of camp equipage and life-size models of warriors past and present. A private of the time of Gustavus Adolphus, 1632, is clad in actual garments of that period—thick felting and leather, with a vast white cotton collar over the shoulders, breastplate and helmet, battle-axe, spear and sword, heavy enough for Goliah.

Denmark is Fairly Glowing

With handsome terra-cotta, vases, urns, jugs, and almost endless decorations that have a style peculiar to themselves; and the same modest elegance is noted in the furniture and fabrics. There are woolen goods, minerals, a collection of birds, feathers, eggs, etc., from the Faroe islands; also interesting exhibits from Iceland and Greenland. One is impressed with the sturdy simplicity of a people who seem to avoid the glare of ostentation, and show such articles as you might expect to see in their homes. There is a long line of useful articles tastefully arranged, and the Danish machines are simple and strong, as though economy were a prime object in all matters.

In Tunis the lover of antiquities will find

The Mosaic Lion

Which formed part of the pavement of the Temple of Diana in ancient Carthage. It is of life size, looks fierce and lively, though somewhat faded, and the whole execution shows the skill of an artist whose name is lost in the more than 2,000 years since his work was finished. Here also are agricultural tools of ancient and awkward pattern, contrasting with the richest modern products, handsome draperies, carpets, slippers and dazzling ornaments for North African belles.

The entrance to Egypt is entirely satisfactory, marking the department distinctly, as Egypt herself is marked among nations; but the mummies have not yet made an appearance, which is a pity, as I wished to compare them with their Peruvian rivals. Of course there is a full-length crocodile, and

A Model of the Greatest Pyramid,

Dating more than 4000 B. C., which seems a silent protest against Jewish traditions, which would make the world too youthful for so old a pyramid; and we may as well imitate the inscrutable Sphinx and keep still about our dates. Who would expect old Egypt to send samples of lumber for building and cabinet purposes? Yet here they are, "too numerous to mention."

Passing through Orange Free State and the Gold Coast we see tropical birds that look curiously alive among green loaves and mossy branches, bugs and insects to rejoice the heart of a naturalist, and certainly own cousins to some of our California pests, especially the ants; ostrich eggs and feathers; horns of the gem bok, and good leather from his hide; white wheat like our own; Kaffir corn; monstrous corn called mealies; nice furs, or rather dressed skins of leopard, tiger, etc.; wool from the Angora Kaross, and an African wool wagon with a very peculiar brake put on behind. Among scores of other things, the Gold Coast sends hideous images, delicately wrought gold jewelry, snakes, and sugar.

The Pavilion of Perfumery

Is what school girls would call "a nice place." The fragrant drops are constantly falling in silver basins; the ladies and children hold up their noses and handkerchiefs, and friend K. furtively sops up a little upon a soiled handkerchief that he says "wouldn't do at all if wife was here."

The woodeu carpeting is very pretty and costs one dollar per square foot. So many things are arranged in the form of monuments and pyramids with every variety of graceful outline. Here is one of chairs, rising aloft and topping out with a cunning little baby-chair lettered for "Pet." Monuments of yeast powder rise airily over against a pyramid of grindstones; others of crucibles, stove polish, iron moldings and tools, wire in coils and on spools, steel and zinc in all stages of rough and polish, shovels festooned in graceful arches, silver spoons for mouths of unborn generations, and (still in pyramius), asbestos coils and castor oils, chemicals and kalsomine, varnish and vanilla, ink and indigo, pens and paraffine, lamp-shades and lozenges, fiddles and filtering paper, candles and calico, and copper from Minnesota that looks like delicate carved work, but it is only a sample from a mass weighing 500 tons.

The Lehigh Slate Company

Have fire-places of marbleized slate more beautiful than you can imagine, and only excelled by the fire-place of onyx and gold, made for the Empress of Germany. The next thing to that is a monument of soap, and the next minute we are looking at the longest rail in the world, 120 feet, which comes from Pittsburg, Pa. But the man who walked all the way from Missouri trundling a wheelbarrow loaded with minerals, would like us to buy his photograph. "Yes, ladies, this pictur' shows me and the 'barrer my own hands made and trundled all the way, over a thousand or tew of miles, I reckon, and this yer plunder shows ye what ole Missouri has got inside of her; ores ye know, and sech truck." This Chat was to ramble over the grounds, and here we are yet in the main building. And that is the way we all do; so much to attract and bewilder the pilgrim—no plan is fully carried out.

TEACHING CHILDREN COURAGE.—Courage is a vital element of Christian chivalry. Without it, indeed, neither truth nor fidelity to promise can be hoped for. The coward is sure to lie when truth means punishment, and sure to retreat from his engagements when they involve peril. We need valiant souls that have learned to endure and scorn pain, and to face danger fearlessly and promptly when duty requires. Some parents evade this vital part of training by glosses and deceptions. A mother who has taken her boy to the dentist's to get a tooth out will often say, if he is shrinking: "Sit still, my boy, it won't hurt you." Now, she knows it will hurt him, but thinks if she can only get him by this device to sit still and let the dentist get hold of the tooth, then his discovery of the pain will not hinder its extraction. This is a double mistake. It destroys her boy's confidence in her, for he detects her in a lie. And though she gets the boy, this time, to sit still, it is under the delusion that there is to be no pain; whereas he should be taught to face the pain and to scorn it. This makes the difference between cowards and heroes. A regiment of poltroons could march up to a battery as cheerfully as a regiment of heroes, if they thought there was no enemy at the guns. The difference is that heroes know the danger and yet face it valiantly.

Hints on Umbrellas.

As the rainy season approaches we conceive it necessary to give our unsophisticated readers a few directions as to the proper management of that useful article of defense and offense. The first operation in the umbrella business is the procuring the wherewithal to operate. If you cannot procure one by good square borrowing of a friend who is to go to the country next day, you can try buying on credit, confiscating one from the hotel racks, or store doors. If that neither gets you an umbrella nor county jail stock, buyer 30, we would advise that you call on some lady acquaintance and just as you go to leave, beg her not to trouble herself to arise to let you out, throw a bit's worth of broken candy in her lap, and hastily walk off with her brother's parachute.

Having raised your umbrella commercially, we will now instruct you how to raise it bodily. Watch until you are in a crowd and then force the slide up suddenly. By careful practice in this maneuver, you may get so expert as to raise at one motion two or three hats, your umbrella, several tempers, and perhaps a muss.

In lowering your parachute be careful that it overlaps one or two ladies' hats; a little strain on their head-gear from the points of the umbrella ribs generally opens the gates of conversation, and you may thus get acquainted with their opinion of man generally.

To carry an umbrella gracefully and to the best advantage is one of the high arts, and must be regulated according to surroundings. If it is wet and dripping, hold the point in front and downwards, so that it will drip on the lady just before you. If there is a short fat man close behind you who seems in a hurry, it is a neat *coup d'etat* to give your whalebone weapon a quick whip under your arm and stop short to shake hands with any one you see ahead. It will assist the fat man wonderfully to get out of his hurry, and by this timely mechanical application to his abdominal region save him from an attack of the gout or apoplexy. Don't be angry if he does double up over the point of it, and knock you down by his momentum, but calmly ask him to apologize. This will convince him that it was a pure accident, and make him feel much better. Or you might watch your chance, drop it on your shoulder and step down from the curb and give the tall man behind you a chance to bite it or gouge it with his eye. These are very interesting experiments, and assist you in calculating distances and velocity.

It is a very convenient corn planter, also, and if planted on your nearest neighbor's corns, is productive of large crops of expletives and prayers over the left shoulder. It is well in this last horticultural experiment to select a small man or your field of labor may be too extensive, and, you not be able to fully complete the experiment.

To protect your capital from the inroads of speculators in the parachute business it might be well to break two or three of the ribs, it is not then likely to be molested unless a Chinese ragpicker sees it, and you can thus always be prepared to realize a small profit by an exchange.

Trusting these few hints may not be sown on barren ground, we sally forth to practice what we preach, and will give further instruction when our pupils shall have recovered from any little physical indispositions arising from injudicious endeavors to profit by this lecture.

A Grace.

[Written for the PRESS by M. J. H.]

There is a grace which every character may possess, every action indicate, every face wear; and though the form of the possessor be ugly, though every movement be ungraceful, though no beauty is in the face, yet this grace encircles the head of the wearer with a halo as bright as the one worn by Charity, and, seen by a weary pilgrim, helps him as efficiently on his journey as the light of the three Christian graces combined.

We have a world of our own—small it may be, but it is nevertheless ours, and we are intrusted with its government—responsible for it in peace, in war, in prosperity and in adversity.

We rule a beautiful little world if we will, but it surely takes will to manage our seasons, to keep thrift and intelligence ever near us, to gain and hold the respect of other small nations.

We are monarchs and should be proud. Our throne may be in the counting house, editor's chair, school-room or, more commonly, at home, but wherever it may be this grace, good humor, will do more toward our success than any good thing we may possess.

It is the clear blue sky of the soul, on which every star of talent will shine more clearly and the sun of genius encounter no vapors in his passage.

'Tis the most exquisite beauty of a fine face; a redeeming grace in a homely one. It is like the green in the landscape—harmonizing with every color, mellowing the glories of the bright and softening the hue of the dark; like a flute in a full concert of instruments, a sound not at first discovered by the ear, yet filling up the breaks in the concord with its deep melody.

Home Adornment.

Panse a moment, and listen to the echo of home adornment. The word home gives a certain sense of security to the mind. What a sweet word it is, and how much is contained therein! Many there are who know not its meaning. The objeot of home is to be the center, the pivot on which the family life turns. Home is not a name, nor a form, nor a routine. It is a spirit, a presence, a principle. The first requisite is to make it so attractive that none of its inmates shall care to linger long outside its limits. All legitimate means should be employed to this end, and no effort shonld be spared that can contribute to it. Many houses, called homes, kept with waxy neatness by painstaking, anxions women, are so oppressive in their nicety as to exclude all home feeling from their spotless precincts. The name of home is synonymons with personal freedom and relaxation from care. Cheerfulness is more essential to home than all the spotlessness that ever shone. Therefore we should adorn our homes with love, sunshine and flowers. Nothing is more remote from selfishness than a generous expenditure in building a honse and adorning it with all that makes it beautiful without and lovely within. Children that are surronnded hy books and cultivated natnral objects become refined in thought hy familiarity with art. Whatever expenditures refine the family and lift it into a higher sphere of living, are really spent upon the whole community as well.

Communities need example to excite ambition. Fine grounds not only confer pleasure on all who visit them, hut they incite ambitious men to improve their own homes. Every element that adds to the pleasure and refinement of the family puts honor and dignity npon it. Whoever makes home seem to the yonng dearer and happier, is a public benefactor. Then, dear friends, let us adorn our homes with instructive books, music, and beautiful pictures. In so doing we promote not only onr own welfare, but encourage literature, music and art. You believe with me that a farmer's home may possess mnoh grace and heauty, and he somewhat suggestive of high hopes, as well as others'. The realities of a nohle life herc are so easily attainable, that every country dweller may adorn his home, and oultivate his appreciation of the beautiful in art and nature.

In the adornment of our homes we should not only care for the social position of our children, but for their personal comfort. We should cultivate charity, cheerfulness and love. Charity is placed at the head of all Christian graoes. Cheerfulness and smiles are the very essence of existence. What sunshine is to the flowers, smiles are to humanity. They are but trifles, to he sure, but scattered along life's pathway, the good they do is inconceivahle. How often do we see persons who reserve their smiles and courtesies for society, while they hurt and wound the feelings of the dear, loving friends at home.

Then do not adorn your homes,
Only with wealth and pleasure,
For we can give our dear ones
A far greater treasure.

If we give them smiles and love,
When we meet them day by day,
It will win their loving hearts,
And cheer them on their way.
—*Fannie M., in Western Rural.*

Woman Suffrage in Newark.—It may be new to some of my readers, but it is nevertheless trne, that in the beginning of the oentury widows and single women were entitled by the laws of New Jersey to vote in all elections. In 1807 the Legislature authorized an election to settle the location of the Essex county court-house. Newark was intensely excited, for Elizabeth had been for some time growing arrogant. Public meetings were held in all parts of the connty, and the air had a bitter taste. The children in the schools were employed for days in writing tickets for the contest. Personal safety was in danger whenever a good word chanced to be spoken for Elizaheth. Two Newark gentlemen drove to Elizabeth in a gig on private husiness, and were received with a buoket of tar. The day of election was fair. Every horse, carriage, and cart in the place was in requisition. Every man and every woman old enough and big enough (age was a minor consideration), or who expected to grow old enough and big enough, to vote, was promptly at the polls. Vehicles were going constantly to and fro from the different polls, and every person voted at every poll. Married women voted as well as single women. Three sisters, the youngest aged fifteen, changed their dresses and their names, and voted six times each. Two of them are still living, and reside in Newark. Men and boys put on women's clothes, in order to duplicate their votes. Never was there a more reckless proceeding. Newark won the oourt-honse, and in the evening illuminated herself even to the tops of her steeples; cannons thnndered and hellowed, and all the tar and apple barrels whioh could be gathered in for miles around were oonsumed by fire.—*Martha J. Lamb, in Harper's Magazine.*

A Lancaster hen has won notoriety by laying an egg which closely resembles a pear in its shape. But this is not as remarkable as if the fowl had laid a pear closely resembling an egg in its shape.

The family tree of a Texas family shows a hranch on which several members have been hnng for borrowing horses.



Mexican Hoisting Works.

Young Folks' Column.

The West Wind's Story.

There lived, once upon a timo, a boy who was so very happy he did not know what to do. His name was Fay, and he lived in a heantiful garden, which was all his own. The fairest flowers and the sweetest frnits grew there, and the snn seemed always bright, as though it loved the pleasant spot on which it shone.

Outside the gates, the world to other eyes was just as fair, but Fay thought that his garden was the only place where flowers could grow, and his the only hands that could properly care for them. This was a mistaken idea, I think, as you will see.

He was sitting idle one glorions day, surrounded hy his flowers, almost dazzled by the snnshine and the rainhow hues, when his restless eyes chanced to fall upon a plant that grew ontside his garden gate; not a beautiful plant, by any means, only a wild kind of creeper, with very tiny, unpretending hlossoms, which peeped out shily between dark green leaves. I forget its name, but it doesn't much matter.

It grew oontentedly against a shady bank, stretching itself up to the snmmer sky, as though to drink in all the sunshine it conld get. Very insignificant it looked by the side of the honeysuckle and wild roses which wound themselves in and out of the hedge, and I douht if any lover of flowers would have oalled it even pretty, but that there is some beauty in everything God has made, and some use, too.

The shadow of an ancient oak fell right across the bank just then, and made a dark patch on the sunny road.

"How delicious!" sighed the honeysnckle to the roses, "I was fainting with the heat. How can that foolish creeper bear the sun? See how she stretches herselt away from us toward the snnbeams. She will be burnt up to nothing before evening."

The creeper only half heard the whisper, for she was gazing anxionsly across the road at the lovely garden flowers.

"In such a garden," thought the foolish wild thing, as she swayed waywardly in the breeze, "surely any one could he happy! It is so shady here, and stretch as I will, the shadows follow me. Look at yonder roses, what richness of color, and what sweet perfnme! Had I half the sunshine they enjoy, should not I be as fair as they? My blossoms would expand and deepen in color, my leaves and tendrils would spread, and the sun would kiss me, and I should be hoth beautiful and happy!"

The west wind heard the grumbling murmur and swept across the bank with a sudden breath of reproof.

Fay, looking over the gate, thought to himself: "I wish that curious plant were mine. It isn't pretty, but it's odd, and something different to what I have. I must get it."

He swung himself over the low wall, and began eagerly to pnll away the soil; but the roots were imbedded firmer than he thought, and it was with great diffioulty that he at last loosed them from their hold.

"Now," said the hoy, as he rested a moment from the struggle, "it's mine, and it shall grow up my wall in the sunniest place. I will tie it up myself."

He oarried it tenderly against his breast and passed through the wioket gate into his own domain.

"It won't need nailing," he said; "I will twist it once or twice around the trellis, and it will soon take hold."

So the oreeper was in the fair garden at last; and Fay, for a little time, was quite happy with his new possession. Was it the gentle west wind whioh sent a thrill of delight through the trailing leaves just then? Or do plants feel, do you think?

Night oame on and with it a storm whioh shook the old oak in its fury, and swept over the meadows, laying the daisies low, while the birds in the ivy huddled closer together, as the heavy rain pattered down upon the leaves.

The garden flowers were all safely sheltered and carefully proteoted from the tempest. Securely tied and held up by strong props, they only bowed their stately heads to the furious north wind; but the oreeper heat itself agalnst the wall, and the cruel storm raved on.

In the early morning the sun rose over the bright garden, where everything looked fresher for the rain. The flowers all wore jewels of glittering rain drops on their broasts, and the birds sang joyously as ever, as they shook the moisture from their wings.

And was that all?

Not quite. The story has two endings, but I only remember one, and it is a sad one.

The poor creeper oould not hattle with the storm. Accustomed to the high bank and the friendly branches, it longed for shelter and support for its tired, proud head. The north wind tore it ruthlessly from its slender hold on the trellis work, it drooped and faded, and with each gust sank lower to the ground. The small purple flowers lay soiled upon the earth, and the raindrops hnng like heavy tears upon the fluttering leaves.

It was quite, qnite dead, and a merry robin pecked at the hroken stem.

The sun shone as hrightly as ever, and only when the hoy, in his wild play, saw the creeper stretched at his feet, he paused, and a sharp pang shot across his heart, and I think he cried a little, and wondered that it died, as children will when they don't know any better.

With a strange feeling of remorse he turned again to his own fair flowers, and only the soft west wind knew of the sad story, and he kissed the dead wild thing tenderly, forgiving its waywardness, and brought the story to me. —*Arthur's.*

Good Health.

Antidotes for Poisons.

Mothers and nnrses not nnfrequently give those under their charge poisonous doses of acids, laudanum, etc., or administer them in haste, in mistake; or children, ever restless, prying into oupboards, and finding some bottles or vials, have, ont of curiosity, hastily swallowed laudanum, the mineral acids and the like, whilst younger children have heen known, again and again, to get hold of sancers placed on floors and windows, containing a solution of cohalt, "fly-stone," or fly-paper.

Opium is the most oommon poisonous agent, taken or administered in the form of laudanum, Bateman's drops, Elixir paregoric, Godfrey's cordial, and, I fear, some soothing syrups, as well as most diarrhea and cholera mixtnres. Any of these articles, administered to young children with unsparing hand, are liahle to produce the dull, heavy stupor of opium poisoning. When the quantity taken is supposed to be sufficiently large to produce death, the first and great object is to remove the poison from the stomach by an active emetic dose; and the most convenient and safest for a mother to give, is finely ground mustard, suspended in warm water. This, or ipecac, may be given freely, till copious vomiting is excited.

The patient must he kept constantly roused and in motion, hy walking; cold water heing occasionally dashed over his head and face. After vomiting has been effected, strong coffee and aqua ammonia may be administered with good results.

When sulphuric acid, or oil of vitriol, nitric acid, or aquafortis, and oxalic acid, have heen swallowed, or poisonous acids of any kind, the mother should administer as speedily as possible, an alkali to neutralize it, such as chalk, baking soda, lime-water, magnesia, saleratus or strong soap-suds. For prussio acid give dilute ammonia, and resort to the cold douche and electricity. If there should be any delay in getting any of these antidotes ready, mustard and warm water may be given with dilutents till vomiting occurs.

If arsenic or any of its preparations has been unwarily taken, magnesia or charcoal may be administered freely, stirred in milk, which will hold or arrest poisonous action, at least till the physician arrives with hydrated protoxide of iron, stomach-pump, etc.; though there is ample evidence in medical records to prove that patients have been saved hy the free use of charcoal, suspended in milk; so also has an infusion of tohacco given freely, been snccessful, in those unused to the noxious weed.

As mothers are apt to have in the house solutions of corrosive sublimate, or "bug-poison," children may tamper with the bottle; and, in such cases, prompt aotion is salvation to the child. She must not wait to summon a physician, but give immediately the whites of eggs, heaten up in water, without measure. The gluten of wheat flour is also nseful, which can readily he employed by throwing a handful of flour into two or three pints of water, and administer it as fast as possible.

To recapitulate: In all cases where poisonous substances have heen taken into the stomach, the first step is to cause their ejection by vomiting, by simple means, if possible, or by neutralizing them by the proper antidotes. —*Peterson's Magazine.*

Be Agreeable at Meals.—You tell us to make ourselves agreeable and entertaining during our meals. Some of us have not the faculty of ready speech. What's to be done in such a case? Ans.—Every one can do something to add to the social life at the tahle. If one cannot talk, he can listen or ask questions, and draw out others who can talk. Good listeners are as necessary as good talkers. Never argue at the tahle; but tell pleasant stories, relate or read anecdotes and look out for the good of all. Sometimes a single anecdote from a paper starts a conversation that lasts during the meal time. A family table ought to be hright and oheerful, a sort of domestio altar, hefore which every one casts down his or her offering, great or small, of pleasantuess and peaoe; where, for at least a brief space in the day, all annoyances are leld aside, all stormy tempers hushed, all quarrels healed; every one being glad and content to sit down at the same board and eat the same bread and salt, making it, whether it were a rich repast or a dinner of herhs, equally a joyful, almost a sacramental meal.—*Dr. Holbrook.*

Domestic Economy.

How to Cook Ham.

The *Commercial Grocer* makes the following snggestions in regard to cooking hams, which are pronounced valuable hy those who know how hams should be cooked: Eastern canvassed sugar-cured hams are in strong demand, and the supply is not large. So mnch depends on the manner in which oonsumers use sugar-cnred hams, that we may be excused for making some remarks thereon. It is a peculiarity of sugar-cured meat that it molds rapidly, and the ahsence of mold on a winter-cured ham at this season is an indication of a salt cure. In stripping a ham, great care should he taken to clean it thoroughly hefore cntting, as any mold carried down on the knife-blade in slicing will affect the flavor when frying. In boiling the ham should always be placed on the stove in cold water, and what is more important still, unless it is to he used warm, it shonld not be taken out ot water in which it is hoiled until qnite cold. This important point is not generally known, hut the reasons are so obvious that no one will question them when explained. If a ham is taken out of hoiling water and cooled rapidly, the snden contraction which ensues cannot fail to harden and toughen the fiher, while, if cooled in that water in which it is hoiled, the juices expressed in boiling are again drawn into it, and it cools with pores open, mellow and juicy. At this season, when summer cures are unreliable, and winter-cured hams are partially dried out, this is a matter worthy of attention. Ignorant treatment in cooking will often condemn a first-class ham, and we recommend our friends who use this article of pork prodnct to note the above.

Jellies.—Currants and grapes make the best and cheapest jelly for home use. Select large, ripe currants, fresh from the bnshes as possible, pick out all the leaves or old currants, let the clusters remain on the stems; weigh six pounds of the fruit thus cleaned, put into a stone or earthern vessel, add a pint of fresh water, then take a wooden masher and crnsh the berries thoroughly. I have a strong, thin linen towel sewed firmly into a poke, into which I put a pint or so of the crushed berries, wring and squeeze them completely; emptying and filling nntil all the juice is secnred, of which there will he about five pints. To this juice add five pounds of hest brown sngar, putting the whole into a porcelain kettle over a good fire; stir slowly with a silver or wooden spoon, and let it boil 15 or 20 minutes. By this time, if the frnit is fresh, there is no failure of the jelly. Then I put it up in pint size, self-sealing glass jars for common use. It is, I really think, as cheap and far more delicions for meats than cranherries, and as a relish of fruit. It costs ahout 25 cents a pint, or pound. The hest brown sugar makes the richest jelly, and with more uniform success. If you want a delicate color and more acid jelly use white sngar. Black currant jelly is considered very beneficial in diarrhea, and other diseases of like nature.

Watermelon Vinegar.—Solomon Jewett, now a resident of Vermont, writes to the *World* as follows: About 10 years ago, while on a sheep ranch, 165 miles hack from Los Angeles, Cal., from whence we received our supplies, I took a 40-gallon oaken cask, and filled it with ripe, or nearly ripe, watermelons, all heing bruised to a pulp or into quite small fragments, with a wooden pounder, as they were thrown in. Then the head was replaced, and every day we changed ends, one resting on the ground. In a little time the rinds of the melons changed to a pulp, and the whole mass was formed into a pleasant but not strong vinegar. But by the addition of a few quarts of molasses, we drew out occasionally from the larger cask into a smaller one, supplied with the plant, or "mother," all of which made very fino vinegar.

Mutton Broth.—To make mutton broth with harley: Take a fore quarter of mutton, save the chops for future nse; take all the lean from the shoulder, put all the rest, neok, breast, hones of the shoulder, trimmings of the chops, with two pounds of beef, salt, whole pepper, two cloves and a garnishing of vegetables, all in a stock-pot, with two gallons of water; boil till done (you may save the breast, as it will make a good dish breaded and boiled, with a *piquante* sauce, for broakfast); ont in square pieces the meat from the shoulder; cook it with some of the hroth, and when well done drain it. Then oook separately half a pint of pearl harley, wash and drain it, pnt with the mntton and some of the hroth in a sancopan; boil and skim the grease off, and serve in a tureen. See that the broth is clear, of a nice color and well seasoned.

Italian Cream.—One quart of cream reduced by one pint of milk, and set on ice to cool. Boat the cream and milk with a good egg-beater 15 minutes thoroughly. Dissolve two ounces of gelatine in a gill of water, and strain it through a flannel hag into the cream. Add two cups of sugar and flavor, if desired, with lemon or vanilla. Stir briskly for three or four minutes; pour into serving dishes and set on ice to oool.

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No Quack Advertisements inserted in these columns.

SAN FRANCISCO

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The Week.

We have again the chief news of the week to find in our commercial columns. The local price for wheat, which has lagged behind the advancing cable like an unwilling school-boy, has now taken a step forward. There comes the announcement from English sources that the home crop is even shorter than was anticipated, and that, while the war drags on in the East, there can be no supplies from Russia, and the hope of the English eater lies in the American crops. This gives our wheat shippers the key to the situation. It argues a lively market for the unusually large shipments which have been made thus far during the harvest year, and promises a better price for those who are holding for it. Thus the outlook is promising. Other features of the present commercial aspect are likewise encouraging. The Eastern demand for barley continues and ships are waiting for their cargoes. Hops display a most gratifying tendency to rise and wool seems indeed waking from its long sleep. These are facts worth rejoicing over. It is not the mere matter of dollars and cents which makes a good price for farm products a general blessing, it is because good prices mean success and success clothes the farm and fills the home with the atmosphere of content and of comfort, and enables the owner to extend to his children the advantages of culture and the graces of refinement.

THE total attendance at the Centennial, from July 15th to September 15th, both days inclusive, was 2,296,049 or 42,889 daily.

Agriculture and the Young Men.

The editor of the RURAL PRESS had the pleasure recently of addressing the students of the State University upon the subject of agriculture and the field which there exists in the industry for the full employment of the youthful strength and brain power of the nation. We were pleased to be assured that the subject was one which the young men were led to express an interest in, and we can say with truth that we never addressed so attentive an audience. We have great faith that a fuller popular discussion of the field for progress and advancement, and for the attainment of true manhood, which exists in agriculture, will have an exceeding good effect upon the rising generation and lead them to estimate the industry not so much by the hardship and disadvantage which now too much clouds its practice, but by the grand opportunities which exist in its possibilities of improvement.

We do not propose to weary our readers with the whole argument which the students of the university bore so patiently, and yet there are a few points in the discussion which we desire to bring to the attention of our younger readers everywhere, that they may think about them and be strengthened in a resolution which we trust is already formed, to give their full strength and skill to the advancement of agriculture, the mainstay of our State's progress.

We noted the fact that in all agricultural communities there is regret that the young men are disposed to abandon the industry of their fathers. In the older States of the East, the disposition of the young men to forsake the culture of the soil is more marked than in our younger and more vigorous commonwealth; but even here there is an alarming tendency manifested to forsake honorable productive arts and embark in a flood of adventures which are of but little benefit to the community at large and still less to those who pursue them. It is for the interest of general as well as individual prosperity, to have every man embrace the opportunities which promise him greatest success, but it cannot be doubted that agriculture loses the devotion of many young men whom she would richly reward, and who, in turn, would minister to her advancement.

But what is the thought that prompts young men to forsake agriculture? There may be motives assigned, but in the minds of many of the nobler class of young men it is a desire for improvement; an ambition for wider success; an impulse to greatness. It is a thought which should stir the breast of every young man. A young man who has not thought long and earnestly upon leaving the farm is of little value to go and stay upon it. Every pursuit and calling of mankind should be carefully reviewed in his mind. There should be no barriers to his choosing that which thorough examination points out. But if the opportunity in agriculture be considered in its true light, and if the opportunities elsewhere be coolly separated from the glamor which distance aids imagination in throwing about them, there would be a wider disposition among young men to value an acquaintance with the soil and the success and happiness with which it rewards him who mingles brains and strength in its cultivation. Young Americans have abandoned farming partly because they think they see nothing in the farm, and partly because, as conditions are, there is nothing to see. He thinks (and older men too often encourage the opinion) that farming is a complete science, that there is nothing more to learn about it, that the methods which have been applied cannot be improved, that all a young man can do upon a farm is to tread again well beaten paths. But he must be shown that agriculture is not a finished book. He must be shown that its brightest and noblest pages are still to be written. He must be made to see that there are capabilities for progress as great upon the farm as elsewhere.

In the early training lies the secret of holding the young men. Let the farmer lighten the labor which he puts upon his son by telling him all he knows about the reasons for doing it; explain to him the processes of nature so far as they are known, and show him the things which remain to be discovered; show him that agriculture is only just beginning to understand itself; show him that by pushing ahead and availing himself of new discoveries and ideas he can make a better farmer than his father. This early confidence and belief in the industry lies at the bottom of any scheme which may be laid for the enlistment of the young men in agriculture. Upon this the schools may lay the foundation and the University complete the structure. The general idea must be to promote an interest in farm work and farming enterprises by extending a knowledge of the sciences involved in them. Teach the young men to observe, and then the opportunities which have been pointed out will reveal themselves.

No one will deny but that for the well being of all mankind agriculture must advance as the other industries advance. It is evident to all thinking men that agricultural progress must be gradual, sure and safe. There must not be any slipping away from the sure experience foundation which now exists, but experience must be extended and practice improved.

With the advance of farming as a science will come a better opinion of the farmer's position among men. Among old opinions which must vanish is the popular view that a farmer is outside the line of social and political advancement. This opinion has always been a fallacy, a mistake of narrow minds. The young men are blinded by it. They have left farms behind them because this view of life has been forced upon them by foolish people.

The young man and the farm: on the one hand a duty, on the other an opportunity; here an obligation, there a way to discharge it. And in thinking of the duty of the young man, is it not encouraging that he need not leave the industry where he finds it, and that he, himself, as he fits himself for a better farmer, becomes also a better man. This the labor; this the reward. The better the man the more noble his calling. The young men can make agriculture what they will. It offers full returns for their best efforts. The country needs better men, and the best man in the end will win, and he will reach the reward for his excellence. It matters not whether, departing, he swings a heavy gate behind him, or whether he comes from a marble door-step. The youth may become a man upon the farm, if he will. He cannot do more elsewhere.

Such in outline was the position which we took in favor of agriculture as a progressive and promising industry to engage the attention of the young men. We are gratified to note that in the next week's lecture a similar position was taken by Prof. Martin Kellogg, one of the faculty of the institution. In the course of his lecture he said: "There is one occupation, one of the oldest and noblest, which almost every student may hold as an alternative. It is the occupation of the farmer. It may become a profession. For such a purpose we have an agricultural college in the university. This occupation is vital to the welfare of any State; it must ever hold a first rank in importance." This is the truth, and the future of agriculture depends, to a large extent, upon the enlistment of earnest and active young men in an industry which offers them a mead of golden opportunities.

California at the Centennial.

We print this week the awards of Centennial exposition premiums to Pacific coast exhibitors so far as they are announced. It seems to be the general opinion that the coast has fared very well at the hands of the juries. The final judgment will of course depend upon the full list when it shall be made up. There was felt considerable anticipation of ill treatment among the exhibitors of California wines, and fears were expressed that other regions which were represented on the wine jury would obtain the benefit of partiality. There arose a better feeling from the fact that a Californian, Mr. J. H. Johnson, of Santa Barbara, was added to the official wine tasters, and justice was expected through his efforts. The awards for wine, which may be found in our list of premiums, show that this expectation was well founded.

The best deeds of our State at the exposition were done at the fruit display, September 9th There seems to be some difference of opinion concerning the excellence of the exhibit. A correspondent in our Horticulture department takes the show for a text on which to preach our fruit growers a sermon on the need of better improvement of our grand fruit adaptations and possibilities. A sermon is never amiss and may hit those who deserve it; it is, however, very gratifying to note in the correspondence from Philadelphia that the popular verdict was loud in glory of our fruit, although for reason of early picking and transportation it must have been very inferior to the fully matured and luscious profusion under which our home tables bend. A correspondent of the *Chronicle* writes: "Prof. Baird, of the Smithsonian Institute at Washington, who is here in charge of the Government display, came around one day and made a careful examination of our fruit exhibit, expressing great satisfaction with what he saw; and the next day he brought Professor Huxley and wife, of England, and found a rare pleasure in showing the productions of California to such lovers of nature and of the good and beautiful. They seemed familiar with the fruits, as grown under glass, but expressed great surprise that such delicate fruits could be brought to perfection in the open air in California. As Professor Huxley gave his hand in parting he said, 'I had a desire to visit California, but now I deeply regret that I must return to England without seeing your beautiful country.' Although this letter is taken up with a report of the fruit display, and only half the story is told, it is due to the exhibit made, on account of its immense importance to California. Indeed, the State is under very great obligations to the venturesome gentlemen who had the courage to gather up this fruit, pay the heavy freight bills and send on a capable gentleman to place it on exhibition. The sad mistake made by the Legislature in refusing to appropriate a single dollar in aid of an exhibit of the resources of California at this grand gathering of the nations of the earth and of our own people, can only be realized by a visit to the Centennial grounds."

A dispatch from Philadelphia, Oct. 3d, says: "The party now in charge of what purportes to be California fruit in pomological hall sells Florida shaddock for California oranges, and is reported to be mixing Eastern fruit with that of California, and so vending it. The fruit judges refuse to enter the California fruit for competitive exhibition because it was sold in the hall. The interest and standing of the California exhibits have been lowered by this method of procedure." This matter should be inquired into and justice meted to the fraud.

QUERIES AND REPLIES.

Spider Silk and Cuzco Corn.

EDS. PRESS:—Enclosed I have the pleasure of sending you, as I promised, a sample of silk made by the silk spinning spider which I found in our garden. I would have sent more but could not find any more at the moment. The spider is about the size of a good sized hazelnut; black with little whitish stripes on the back. I suppose they are not plentiful, as I never saw another one. It seems the spider winds up the thread again, for it disappears, sometimes completely, and appears again, always going out from the same orange tree in another direction.

At the same time with the silk I send you some grains of the largest corn, both in the size of the grain and the size of the stalks, which I have known till now. It comes from Cuzco, Peru, from whence I received it direct. If you break a grain you will find the flour ready made inside, and this of the very best quality. It needs a long season to ripen, but if it would do well here it may be a good acquisition.—T. GRELCK, Los Angeles, September 20th.

The silk spinning spider is well known to naturalists, and has been found in different parts of the world. It is not uncommon on this coast. At the same time that Mr. Grelck's specimens of silk arrived we were shown a spider, silk and leaves which a gentleman captured in Golden Gate park in this city. The insect has been fully described by Prof. B. G. Wilder, of Cornell university, as he found it in the sea islands off the coast of South Carolina. Although the insects found here may prove on closer examination to be a distinct species, the general characteristics are like those noted by Prof. Wilder. He describes the insect as follows: The female is one and one-tenth inches long, with a longitudinal spread of legs of two and three-quarter inches, and a lateral extent of three and three-quarter inches; the cephalothorax is black above, mostly covered with silvery hairs; abdomen olive brown, with yellow and white spots and stripes; eye spots black and eight in number. Its specific name is *Nephila plumipes*, Koch, and the name is received from the closely set stiff brushes of hairs on the legs. It builds strong viscid webs, three to four feet in diameter and usually high above the ground. The web is made of a dry, inelastic, silvery gray silk, and of a very elastic viscid yellow silk; the former is the supporting, radiating framework, and the latter forms the concentric, entangling circles. Mr. Grelck notices that the web disappears, and thinks it must be wound in again. Prof. Wilder states that the insect sucks the gum out of the old web for making the new one, which would account for the disappearance. To test the quality of the silk, Prof. Wilder made some interesting experiments. He made an apparatus to wind it off, and found that from one pair of spinners came white and from another yellow silk, as noted above. He wound these separately and drew out two miles of silk in less than five hours, winding time. He found, however, that he could not wind out more than 300 yards at a time. The diameter of the silk varied from one six-thousandth to one one-thousandth of an inch, and its strength is very great.

The Cuzco corn which our querist sends is a notable grain The kernels are white and vary in size from three-fourths to one inch in length and one-half to three-fourths of an inch in width. As he says, the starch of the grain seems to be in a floury condition. What effect this would have upon the value of the grain we do not know. Possibly the grower could bake the kernels and sell them for Eastern "oyster crackers," which they resemble in size and appearance.

The grain is badly infested with weevils. From a cursory examination the insect seems to be the common rice weevil which makes free with corn and wheat. In this connection we would caution all who import seed corn that they are quite likely to get a full share of weevils with it. We read in an Eastern exchange that every sample of foreign corn, *maize*, on exhibition at Philadelphia, whether from Europe, Asia, or Africa, is infested with weevil. The probability is that other grains are infested with noxious insects. Societies, boards of agriculture and individuals receiving these grains in exchange, should be exceedingly careful that the grain be not exposed so the insects may escape. The greatest care should be used to destroy these noxious pests, if it be intended to plant the corn received. Immense damage has already been done to this country through the introduction of European noxious insects. It would be a national calamity if this corn (*maize*) weevil should be introduced to the immense cornfields of the West. Therefore, we repeat, individuals and societies receiving this corn should be very careful that inadvertantly the insects do not escape and breed.

Tropical Fruits and Sea Breezes.

EDITORS PRESS:—I have a few friends from Los Angeles staying at my house. They insist that it is better that both figs and oranges should be grown near the sea, within the influence of the sea breeze, and that the upper part of the San Joaquin valley will not do for these fruits. It is our request that you will settle this dispute through your columns.—AGRICULTURIST, San Francisco, Sept. 21st.

Without desiring to take a hand in any one's disputes we will simply state that oranges are produced with success in Tulare, Stanislaus, Fresno and even in the foothills of Mariposa counties. Figs of excellent quality are produced in Yuba and Butte counties.

THE SACRAMENTO PLOW CO. are about making improvements in their works by the addition of new tools and machinery from the New Haven Manufacturing Co., Connecticut. The Plow Co. occupy a space on J street 80 by 100 feet. We are pleased to note such signs of progress.

[Editorial Correspondence.]

The Centennial at Philadelphia.—No. 15.

With the advent of cooler skies the people are coming up to this great world's exhibition of a century's progress in immense numbers, and the Centennial grounds are daily thronged with large and lively delegations from every part of the country. It is now a pleasure to visit the exposition, instead of the penance it was a few weeks since, when Philadelphia was like a fiery furnace, and when the usually refreshing showers that sometimes passed over the city seemed to intensify rather than lessen the sufferings of the poor unfortunates who selected that time to visit the exhibition.

Woman at the Centennial.

We have already pointed out some of the peculiar characteristics which mark this great anniversary exhibition; but there is still another most noticeable one in the part which woman has taken in regard to it. The patriotism and philanthropy of the women of America has ever been of a high order, and far more active than in any other country; and it may be regarded as morally certain that if the world is ever completely civilized and enlightened, so that the apocalyptic millennium may be fully realized here on earth, that event will be mainly brought about by the efforts of womankind—by woman's love and woman's work. The mission of woman is rapidly enlarging, and already extends to fields that a few years ago were considered quite beyond her province or her power. Her efforts may even now be considered as embracing everything which tends to the improvement and happiness of the world. Her future is glorious, beautiful, illimitable!

When this great exhibition was fully decided upon, and the work of preparation had actually commenced, but was beginning to lag for want of confidence and enthusiasm, the women of the country came promptly to the rescue, and said that it must and should go on, but that it should not be left to the men alone. They claimed an interest in the patriotic enterprise as well as their husbands and fathers and brothers; for they, too, had gained freedom and independence, and in the universal progress of the country had secured the privilege of standing before the world an equal of man, entitled thereto by a code as ancient and as sacred as that which decreed equality to the sterner sex. Acting upon that assumption they formed a national aid society to the Centennial commission, with auxiliary branches in most of the cities and States throughout the Union, and went earnestly into the work of raising money. The efforts of the ladies of California in this direction will never be forgotten. The results of those efforts are said to have astonished the ladies of Philadelphia, and the gentlemen managers of the enterprise as well. By the sale of Centennial stock, by fairs, tea parties, etc., they soon realized a large amount of money, and by their example and energy encouraged and enlisted thousands of men in the enterprise who might otherwise have stood permanently aloof. The stories of Bunker Hill monument and of the Christian Commission during the late war began to come uppermost in the minds of many, and an impetus was given to the work which, if it did not form the turning point, at least did much to make the effort the grand success which we see to-day.

Up to a certain time all the money raised by the ladies was paid into the general fund; but the time finally arrived when it was resolved to make a specialty of women's work, and to erect a suitable building especially for that purpose. There had been several attempts at previous world's fairs to make a special exhibition of women's taste and industry. Sweden and Austria had each tried the experiment at Vienna. But this American effort is the first which has achieved anything like success on a scale at all commensurate with the magnitude and importance of the idea, and the very first to undertake the erection of a special building to be devoted exclusively to the object. We are told that the determination to erect this building had its origin in the refusal of the Centennial commission to allow a separate space within any of the special buildings for the exhibition of women's work. Such a refusal was certainly ungallant, if not ungrateful to those who had done so much to forward the enterprise, and especially at a time when even very little help was greatly needed. But whatever may have been the origin, the result is here before us in a beautiful structure, erected at a cost of some $40,000, and known as

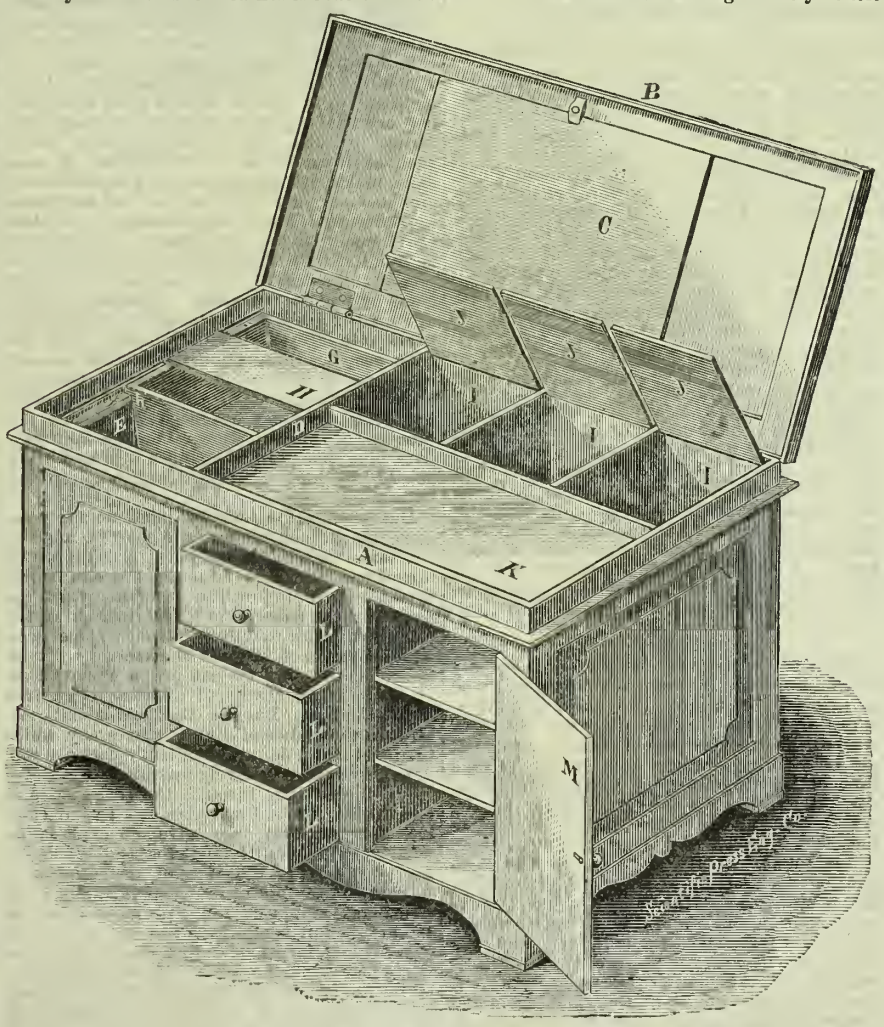
The Women's Pavilion.

This building covers an area of 30,000 square feet, and is formed by two naves intersecting each other at the center. [An illustration of the women's building was given in our Home Circle recently.—EDS. PRESS.]

In its design and construction the originators were careful to exclude as far as possible everything emanating from the head or brain of the opposite sex. Though they did not actually build the pavilion, they paid for its erection, and all the exhibits therein, except the machinery by the aid of which their work is done, is the work of their own hands. This rule is carried even to the engine house, where the six-horse power steam engine has been run and kept in order from the day of opening until now by a lady engineer—Miss Emma Allison, of Grimsby, Ontario county, N. Y.

The structure was designed and is occupied solely for the exhibition of women's work in all its branches, and for the illustration of those educational systems and moral and benevolent enterprises in which women have borne the chief or most prominent part. The entire enterprise has been planned and is conducted by them; and as the great Corliss engine which drives the machinery in the machinery building was first set in motion by a man—the President of the United States—so the engine which drives the machinery in the women's pavilion was first started by a woman, the wife of the Emperor of Brazil.

We are not much in sympathy with that class of womankind which is generally known as "strong minded women." Neither do we believe that woman was created merely "to bear and nurse children and to make tea and toast." We regard her sphere as that of a truly helpmeet to man—one who should and can stand by his side in most of the great life-work of the race. Experience has shown her to be equally enduring and equally courageous with man, and altogether his superior in the civilizing and humanizing work so essential to the prosperity and moral elevation of mankind. When guided by her naturally refined instincts the very air which she breathes is redolent with



McINTYRE'S IMPROVED KITCHEN SAFE.

love, justice and humanity. Such qualifications fit her in a peculiar manner for many positions in life to which she has heretofore been a stranger, and we rejoice that the social progress of the last half century has more fully recognized her true relations in life, and that the most advanced thinkers of the age greet with pride and joy her entrance in the enlarged sphere of usefulness into which the women of America are now being introduced.

A Bird's Eye View of Woman's Work.

One of the objects of this special display is to help forward this good work of reform by making the public better acquainted with its plans and purposes, and to infuse new strength and energy into the lives of those who are already engaged in the work. The great design of the exhibition as a whole, that of object teaching, is fully sustained in this particular department. A visit to the women's pavilion cannot fail to interest and instruct, and we recommend to all who are in doubt as to what women are good for outside of the kitchen, nursery or parlor, to go to the pavilion and see and learn.

As the visitor reaches the main entrance he reads, emblazoned upon the portals, this appropriate inscription, "Let her works praise her within the gates," and if he goes up the steps with an unprejudiced mind he feels, on entering, that her works, as there displayed, *do* praise her and make known at a glance the great variety and number of industrial pursuits which are open to females; the demands of which, on the hand or brain, are quite within the scope and sphere of the sex. The exhibits are neatly arranged and properly classified, and the entire space is filled up.

The fine art exhibit is large, and the paintings and sculpture compare formably with those of the most celebrated artists of the world as shown in memorial hall. The corners of the building are occupied by the officers and executive committee, where all desired information is freely given. Scattered here and there are flowers, natural and artificial, and most lovely specimens of female handiwork gathered from all parts of the world. Needlework is shown from the hands of royalty and from the humblest worker in the cottage. One of the first questions most usually asked by the ordinary visitor, is, "Where is Queen Victoria's embroidery?" There it is—it consists of some linen napkins, said to have been spun and woven by her own hands, and a few etchings which are very neatly executed. There is also quite a contribution of needlework industry from other members of the royal family of England, which speaks well for the domestic education and habits of that remarkable household.

We have neither time nor space to call attention to even a moiety of the exhibitions in this direction; but it is a noticeable fact that in point of taste and elegance, as well as originality of design, the display of American handiwork is in marked ascendence. There is nothing about it stereotyped or conventional. It seems to have come from a democratic school where every one is free to develop according to her peculiar taste or genius. The only motto seems to have been "Excelsior."

There is also a good display of wood carving, large and small, which furnishes abundant evidence that such work might safely be left entirely to female skill and genius. This display embraces the ornamental work of furniture, pianos, organs, fancy ornaments, etc. Perhaps the most uniformly creditable exhibitions are those from the Lowell, Cooper and Cincinnati art schools.

The inventive genius of the ladies is made manifest in numerous ways and samples. A Boston lady inventor exhibits what she calls a "surprise bed," which is quite a curiosity in its way. A life preserving mattress is also shown as the invention of Mrs. H B. Mountain, of New York, which has the indorsement for usefulness and safety of that aquatic expert, Paul Boyton. There are also numerous other inventions for household and kitchen use, etc., but we can mention only one, a "P. G. G." (patent griddle greaser), the invention of Mrs. Sherwood, of Boston. This invention is designed to avoid the troublesome, vexatious and objectionable deposit of grease on dress and person which is so unavoidable in the ordinary use of rags, pork rinds, etc., in the very necessary act of preparing those toothsome "hot cakes," which form such a desirable portion of the morning meal. Blessed be the inventor of the "P. G. G."

The Japanese department forms quite an attractive feature in the kind of work peculiar to that singular people. This exhibition affords abundant evidence that there is more taste, skill and ingenuity among the ladies of Japan than they have generally been credited for.

Among the more practical exhibits may be seen quite a number of silk, worsted and other looms, which are in daily operation. Also a printing press and types, cases, etc., forming a complete printing office—the editorial and composition department of which is run by females, but we noticed that the foreman was of the opposite sex. The office is chiefly employed in printing a weekly paper called *The New Century*, devoted to the interests of the exhibit in this building, and to the general physical and intellectual advancement of women. The paper is well conducted, moderate in its tone, and claims for the sex only sound and reasonable privileges in the world of industry and art, such as must be accorded her by any reasonable being.

Grumblers.

Many persons have complained that the women's exhibition runs too much to needle and fancy work, that it is not sufficiently practical; some have even grown eloquent over the "lost opportunity," etc. There may be something in these criticisms. The lateness of the day on which the idea was conceived was, no doubt, a great drawback, and the unwillingness of many female exhibitors to come into this building and lend their aid to make it more universal and more practical, added still further to embarrass the managers in properly bringing out its more useful features, and rendering it all in that direction which it might have been. Many exhibits, both in the main and government buildings, would have found a more appropriate location here, if the rules and wills of the Centennial management had been a little more pliable. The exhibits in the art department would have been much fuller and better had it not been for the fact that many female exhibitors refused to have their works classed according to sex, preferring that they should go into immediate competition in the general departments, rather than aid in the common advancement of the cause in behalf of which this building was erected. It is to be regretted that so many such instances of selfish action were found, when so much more good might have been accomplished for the sex in general by a more generous course. It may be noted in this connection that the first picture sold at the exposition was painted by a woman, and it does not hang in the women's pavilion. The picture has been engaged to the buyer for $1,000.

W. B. E.

An Improved Provision Safe.

George McIntyre, of 753 Folsom street, in this city, has recently patented through the MINING AND SCIENTIFIC PRESS Patent Agency, an improved kitchen accommodation safe, a representation of which is given on this page. I is a chest or cabinet, which is not only useful for holding articles used in cookery, but is also provided with drawers and shelves for containing napkins, towels, cutlery, and other articles which are used in and about a kitchen and dining room.

In the engraving, *A* represents a chest or cabinet having a hinged cover, *B*. The cover is constructed of a single panel, and this panel is depressed on the inside of the lid so as to provide a recess in which the head-board, *C*, will lie when not in use. A button on each side of the recess fastens the board in place. An upright partition, *D*, separates off one end of the box, so as to form the flour bin *E*. A rail or ledge, *f*, is secured to the end of the chest, inside of this bin, while a similar rail or ledge is secured opposite it to the upper edge of the partition. The dough tray, *G*, is provided with a shoulder or ledge, *n*, along the upper outside edge of its opposite sides, so that when the tray is set into the bin its ledges, *h*, will rest upon the rails or ledges, *f*. The dough box is shallow, so that it only projects downward a short distance into the bin, so that it can be slid back or forth on the rails or ledges, *f*.

When the dough box is pushed back against the rear side of the chest, sufficient space is left in front of it to admit the hand or arm of a person into the flour bin below, and this space, when it is not required to be open, is closed with a board, *H*, which prevents dust from entering the bin.

Along the rear side of the chest, between the flour bin and the opposite side, are two or more small bins, *I, I, I*, each of which is provided with an independent lid or cover, *J*, and which are intended to hold salt, soda, or other things used in cooking. These bins need not extend down to the bottom of the chest. Between them and the front of the chest, and somewhat below the upper edge of the bins is a bottom, *K*, which forms a shallow table for the cook to work upon.

L, L, L, are a series of drawers, which are placed one above the other in the middle of the chest, and are useful for containing knives and forks and other small table furniture. *M* is a cupboard door that opens to a series of shelves. The corner shelves and drawers extend entirely back to the rear end. These shelves are for table cloths, napkins and other kitchen and dining room cloths. This convenient and ornamental kitchen cabinet is on exhibition at the fair.

A TRAP FOR FOOLS.—We have been annoyed by receiving through the mail a newspaper published in this city for the declared object of spreading "useful information in regard to matrimony," which means to get money from people for printing a lot of maudlin stuff in the shape of advertisements for partners in marriage. We make mention of this worthless abuse of journalism, because, doubtless, copies will be sent into the interior and the weak and unwary will be entrapped into squandering money for what is a fool's game, or worse. We caution our readers against this delusion and snare in the shape of a newspaper.

Sheep and Wool.

Southdown Sheep.

A very interesting exhibit of Southdown sheep was made at the State fair by James M. Thompson, of Suscol ranch, Napa county. He had 10 spring lambs, six yearlings, one four-year old ram and seven young rams. The sheep were fine, especially the yearling ewes. The lot were taken directly from Mr. Thompson's flock without preparation for exhibition. He has been breeding these sheep and importing them from Canada for four years, and his flock now numbers 80 head. His ranges are on the tules and on level uplands, and he has kept his sheep free from scab for two years without dipping.

The Southdown sheep are especially adapted for the needs of farmers who desire to keep small flocks and gain the profit from growing early lambs for the market. They are hardy and rapid growers, gaining at six months old nearly twice the weight of the Merinos. They are of the class of sheep known as "middle wools," and their excellence is historic. The *Live Stock Journal* in its last issue makes the following appreciative mention of the breed: "Among the middle-wools are to be found some very interesting varieties. First among these is the Southdown, whose admirable qualities, recognized and preserved through generations of English agriculture, were developed by John Ellman, of Glynde, and subsequently by Jonas Webb, of Cambridgeshire, to a very high state of perfection. They have a finely tapering head, on a good neck, with back straight and broad, ribs well rounded, and are, in every sense, a stylish looking animal. Face and legs brown, often mixed with gray; should not be black in the grown animal, though admissible in the lamb. Wool uniform in length and quality, with good felting properties, though often employed as combing wool. The lusciousness of Southdown mutton, attested by the history and traditions of generations gone by, meets the more exacting fastidiousness of the modern epicure as well. The meat is 'marbled' by that alternation of fat and lean so much desired in the meat-producing animal. The Southdown is homeless—though most writers incline to the opinion that it was not originally so."

Premiums at State Fair.

The following premiums for sheep were accidentally omitted from a part of last week's edition:

For best Spanish merino ram and five lambs—Severance & Peet, first prem; George Hancock, second prem.

FRENCH MERINOS.

Mrs. Blacow's Favorite and five lambs, first prem; and for Sultan and five lambs, second prem.

For best buck two years old and over—Mrs. R. Blacow, first prem for Favorite, and second for Pirate.

Buck one year old:

Mrs. Blacow, first prem for Nero and second for Shepherd's Pride.

Three lambs:

Mrs. Blacow, first and second prem for two separate pens.

French Merino ewes, two years old:

Mrs. Blacow, first and second prem for two separate pens; also, first and second prem for two pens one-year-old, and first prem for best ewe lambs.

Useful Information.

Combustible Silk.

The *Polytechnic Review* says: "It seems to be well established that black-dyed silk is liable to a similar alteration (*i. e.* spontaneous ignition) although its real cause has not yet been satisfactorily ascertained." Since the appearance of the contribution in question, a fact has come to the knowledge of the writer, that in all probability will throw some light on the subject, as will be perceived from the item herewith reproduced from *Harper's Annual Record of Science and Industry*, for 1875: viz: The debasement of silks by foreign admixture, if we may infer from the comments of journals devoted to textile interests, has of late reached such a hight as to promise shortly to rival that of a class of cotton goods which have added largely to the notoriety, if not to the fame, of one of the manufacturing centers of England. A writer in one of the French journals shows that the weighting of black silks—which began with the modest aim of making up for the loss sustained in ungumming—is now carried to the extent of 100, 200 and 300 per cent. This increase of weight is effected by treatment with salts of iron and astringents, salts of tin and cyanides. The bulk is augmented proportionably to the weight. The same writer points out very clearly the evils attending this excessive adulteration. The chemical and physical properties of the silk thus treated are materially modified. What is sold as silk is, in reality, a mere agglomeration of heterogeneous matters devoid of cohesion, held together temporarily by a small portion of silk. The strength and elasticity of the fiber are likewise reduced. From being in its natural state one of the most stable of substances, and but slightly combustible, in its adulterated state it burns like tinder if touched by a flame. It is likewise affirmed to be liable to undergo spontaneous decomposition, and to absorb gases with the evolution of heat which sometimes lead to actual combustion. The adulterated silk when burning scarcely gives off the characteristic odor of animal matter.

Silicated Carbon Filters. — Professor Wanklyn has, it would appear, been conducting a series of exhaustive experiments, which have, off and on, extended over some years, with the object of ascertaining the peculiar action of "silicated carbon" as a filtering medium. The results of his investigations we find detailed in a paper on filtration lately read by him at the Sheffield meeting of the British medical association. The one broad fact arrived at is that silicated carbon possesses in a high degree the property of decomposing nitrogenous and organic matters, and this though they be contained in very dilute or comparatively strong solutions. Water containing nitrogenous matter, animal secretions and excreta, as milk and urine greatly diluted, with solutions of quinine, morphia and strychnine, were, among other liquids, made to pass through the filtering material and with striking results. In the case of the quinine and strychnine experiments eight and one-fourth and eight and three-fourths grains respectively of these intensely bitter alkaloids were dissolved each in one gallon of water, and after filtration of the solutions they were found to be devoid of bitterness, a striking proof of the thorough decomposing or eliminating action of the material. The careful investigations of Professor Wanklyn establish the reputation of the silicated carbon filters on a yet surer basis, and point to their complete trustworthiness among much that is untrustworthy in the way of filters.

Home-Made Colonists.—A novel feature in technical education consists in the special training of intending colonists which is being introduced into certain educational establishments. At the Crystal Palace school of practical engineering, for instance, there is a colonial department devoted to the manufacture, if we may be allowed the word, of explorers and settlers. The course of instruction, which is as far as possible practical in its details, includes everything in the shape of scientific and mechanical expedients which a man thrown entirely on his own resources would be likely to find useful. Among the subjects taught, for instance, are the damming of streams, the making of reservoirs, filter-beds, water wheels, pumps, wells and windmills, sanitary arrangements, rope-making, modes of clearing, the felling, barking and seasoning of timber, the principle and construction of works in timber, rough carpentry, joining, fencing, cart-wheel making, glazing, roofing, painting, brick and tile making, the getting and working of stone, the preparation of mortar, cements, and concretes, road-making, tent-making, temporary shelters, and "shifts and expedients of camp life." With educational facilities such as these, the future race of colonists should be able to compass great things.—*British Trade Journal.*

What is an Ingrain Carpet.—The two-ply ingrain known to the trade is a fabric composed of two webs or plies of cloth made with different colored yarns—say one ply green, the other red—of equal consistence or texture, united at the edges of selvages of each by the selvage threads, and ingrained or united at different parts of the cloth, wherever called for by the design or pattern. If the red ply represents the ground color of the design, then the green will be the figure color; and whenever the green figuring ply appears over the red ground ply, that is ingraining. The more general this ingraining or mixing up of the two webs or plies, the better the fabric is ingrained and the longer it will wear. The three-ply ingrain is made and ingrained after the same manner. A two-ply carpet, woven on the same loom and "mounted" in the same manner as a two-ply ingrain, if woven plain, without any design or pattern, would be a seamless bag, or two bags joined together by one side of each.

Bending Wrought-iron Tubing.—Ziegler, in the *Maschinen Constructeur*, recommends tubes, up to 20 centimeters diameter, to be chalked in the part which it is desired to bend, and laid on a fire with a small blast, on the part opposite to the curve which it is desired to make. The lower part of the tube only is to be heated; if the fire is insufficient to heat the whole length, the tube must be passed backwards and forwards till enough is heated. The tube is then placed in a close-fitting hole up to near the warmed surface, and then carefully twisted around, not backwards. As the tube crushes, the bending is stopped, and operations begun again. The walls on both sides of the tube being at first of equal length, but the outer side getting longer during the bending, an equal heating would lead to buckling. Frequent heating is to be avoided.

Imitation Marble.—Carl Boschau says that if a statue, made of plaster of paris or *papier mache*, be coated with thick white dammar varnish, and then dusted with pulverized glass, it will have, when dry, the appearance of alabaster. If it be afterwards varnished a second time, and dusted with coarsely pulverized white glass or mica (*mariemlas*) and again dried, it will be a very successful imitation of Carrara marble, especially if the marble veins be first traced with some delicate blue pigment. This method of preparation follows that of nature, for alabaster consists of very small crystals of sulphate of lime, and Carrara marble of somewhat larger crystals of carbonate of lime, which in reflected light glistens like white sugar. This effect is obtained with perfect deception by the brilliant white glass in coarse powder.

The Color and Fragrance of Plants.

Prof. Vogel has a long article on this subject in the *International Review*. Some of his conclusions are so interesting that we make the following extracts:

We cannot doubt that the different taste, smell and color which characterize leaves, blossoms and fruits, in million-fold variation, are due simply to chemical operations, the nature of which, we must confess, are as yet utterly unknown to us. One mineral substance, chromium, is known to us as the source of a nearly inexhaustible number of tints and colors of every description; but its scale, rich as it is, seems to be infinitesimally restrained, when we compare it to the hundreds and thousands of brilliant colors with which even the poorest vegetation covers the surface of the earth!

We must not forget that a color is unreal; it is not a corporeal, palpable substance, but merely a state or condition, which affects our eye in a certain way; it does not exist, but is represented to us by the variable decomposition of the light, as the surface of bodies throws back or reflects only a portion of its rays, and absorbs the rest of them. For instance, we call a body, the surface of which absorbs every other ray of the light, and allows only the blue one to meet our eye, blue. The surest proof of the assertion that no real or corporeal color exists—that the colors are, as Goethe calls them, "deeds or children of the light"—must be found in the fact that some persons cannot perceive colors which others see distinctly; and that the colors entirely depend upon the manner in which the light is thrown upon them. Dyed cloth and even natural flowers often show, under artificial light, another color than that shown by day. An intensely yellow flame, such as is produced by the burning of soda salts, makes red substances, such as crimson or cinnabar, appear colorless; and red solutions, looked at under this light, seem to be as clear and transparent as pure water. Moreover, it is quite certain that the form of a substance greatly influences its color. Almost every color gains by fine pulverization. Thus a solid piece of cinnabar is not red, as cinnabar powder appears to our eyes, but dark brown, and the color becomes proportionally brighter according to the degree of pulverization. Oxide of mercury, the crystals of which are of a shining red color, becomes orange-yellow during the process of pulverization. On the contrary, dark blue smalt can be changed into a colorless powder by long continued pulverization and trituration.

But chemical action produces no more remarkable influence upon the color of a given substance than by the physical changes which it causes. As far as minerals are concerned, we are able to follow the reactions which appear to be the cause of a transformation of the color; we know exactly what takes place when white chloride of silver is blackened by the influence of the sun; we can give a chemical explanation of the change of colorless indigo into colored indigo. But the chemical transformations in the bodies of living plants, by which the most manifold and brilliant colors are produced, are almost entirely unknown to us. We see a flower pass through the entire scale of red, from the softest pink to the darkest purple-brown, but can give no explanation whatever of the mysterious process. We know, for instance, that the light of the sun greatly influences the color of living plants, and experience has taught us that, in most cases, its total exclusion is equivalent to the absence of every color; in other words, that it produces white leaves and blossoms. However, this rule is by no means without exception, as many roots, the roots of alcanna, for instance, although buried in the soil and completely excluded from the rays of the sun, possess a strong and vivid color. We can explain neither the rule nor the exception; on the contrary, we know that, as far as lifeless matter is concerned, mineral or vegetable colors are weakened, and gradually destroyed, rather than enhanced by the action of the light. Our ignorance in this respect restricts our influence upon the coloration of flowers and blossoms to a very modest and nearly empirical one. A mere chance has led to the discovery that the infusion of sulphates of iron into the soil darkens the hue of certain plants which contain a considerable quantity of tannin; and the gardeners have profited by this discovery for the culture of the hortensia. But these examples are rare; and as yet we must renounce all claim to the control and influence of the natural course of things in this field. We may be able to change the color of a plant or flower by transferring it to another soil, but we are never sure of the result, and cannot give any scientific explanation of it.

The fragrance of a flower is likewise produced by chemical action which hitherto has escaped our closest investigation; we see the result; we see that a flower, like the bee which transforms pollen into honey and wax, fabricates volatile oils out of air, water and light; but the chemical process itself is a complete mystery to us. We only know that the slowness or rapidity of the evaporation of these oils is the cause of the stronger or weaker odor of the flower. The mode of their formation is a good example of the unlimited variability and manifold variety of vegetation's chemical powers. Many plants do not limit themselves to the formation of certain volatile oils in their blossoms or flowers, but produce, at the same time, various kinds of oils in their different parts. The orange tree, for instance, produces volatile oil in the leaves, flowers and the rind of its fruit. A close investigation convinces us that these differ, not only in their smell and taste, but also in their weight, density and other physical and chemical qualities; that, in short, they are different and independent substances, which cannot be mistaken for each other. The same plant must, therefore, possess three different organisms, by which it generates three entirely different substances out of the same ingredients. What chemical laboratory, be it ever so well furnished and skillfully managed, can boast of results in any respect so wonderful? And when will the time come when we may surprise even these mysteries of nature's slow and patient but mighty working, perceive their results, explain their causes, and—if possible, by our own appliances—repeat and renew the wonders of the creation?

The Immigrant Bureau Re-Organized.

A Free Employment and General Information Office.

The Peoples' and Grangers' Immigrant Bureau, which accomplished so much good last year, has been re-organized under a new Board of Directors, and will continue its good work of attracting immigration and providing for the necessities of the new comers FREE OF CHARGE. Four thousand and eighty-two situations have been found for applicants since May, 1875. The Bureau expects to receive orders for all the help that may be required in the country the present season. Four hundred persons visit the office daily. Descriptions of land, maps, pamphlets, circulars, and local newspapers, should be sent to the Bureau. They will be freely distributed among inquirers. The Bureau was established by the State Grange, and being supported *entirely* by subscription NO CHARGE is made for any business transacted. The following gentlemen are on the Board of Directors for the ensuing year: Mayor A. J Bryant, Chairman; I Friedlander, C. Adolphe Low, Mark L. McDonald, Amos Adams, J. Regensburger, C. D. Sullivan, Charles Lux, George H. Eggers, J. C. Wilmerding, C. J. Cressy, John Morton, Col. A. Wason, Hon. F. A. Gibbs, F. B. Taylor, C. H. Dennison, Claus Speckles, Charles Kohler, A. W. Thompson, All communications should be addressed, J. EARL, MANAGER, IMMIGRANT BUREAU, Grangers' Building, 40 California street, San Francisco.

THE NEW WILLCOX & GIBBS Automatic Tension Silent Sewing Machine is the latest and most marvellous invention in sewing mechanism. It is the only sewing machine that can be used successfully without instruction or experience, and invariably does perfect and durable work. First premium at American and Franklin Institute Fairs, November, 1875. Send for circulars and price-list to Willcox & Gibbs Sewing Machine Co., E. B. Cutler, Gen. Agent, 111 Post street, S. F.

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AMERICAN MANURES, OR FARMERS' AND PLANTERS' GUIDE.—Comprises a description of the elements and composition of plants and soils; the theory and practice of composting; the value of stable manure and waste products, etc. Also, a chemical analysis of the principal manufactured fertilizers—their assumed and real value—and a full expose of the frauds practised upon purchasers. By Wm. H. Bruckner, Ph. D., Phila. Sold at this office. Price, $1.75; post paid.

THE THRESHERS' GUIDE, by D. W. Hollihan, a practical operator with threshing machinery in California and other States. A book of useful and friendly hints to the grain growers, machine owners and threshing superintendents and workmen. Published at the RURAL PRESS office, in 1872. Price, $1; in limp cloth binding, 75 cents; postage paid.

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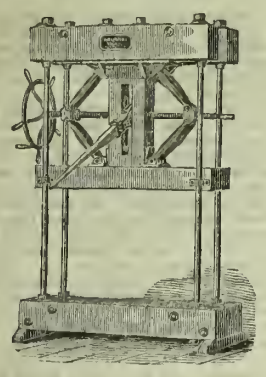
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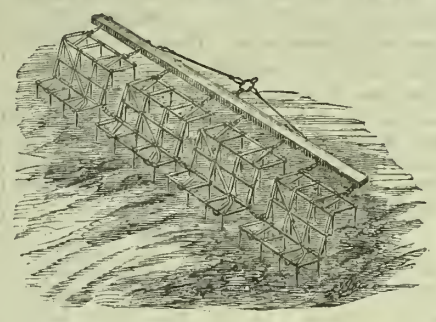


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Should a Farmer require a Harrow upon his farm to do all kinds of work, he should purchase six sections, which would be suitable for four horses, and would cut 18 feet in width; by disconnecting two sections he will have a two or three-horse Harrow, cutting about 13 feet. One section alone is complete in itself, and suitable for garden work, with one horse. The Harrows are made of the best quality of iron, and with teeth warranted to be steel.

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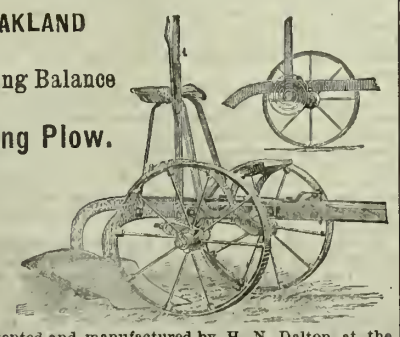
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It has come to our notice that certain parties are now making this Harrow in this State, and that several of them have been sent here from the East. Now this is to *caution* all persons against making, selling or buying them, so made and offered for sale, as we shall enforce our rights in relation to the matter, and would call the attention of all persons infringing upon our patent, to the *law* in regard to it.

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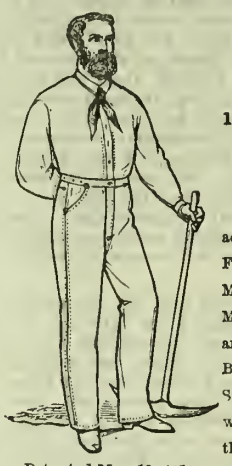
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(Continued from Page 237.)

SONOMA.

A NEW HORSE DISEASE.—*Democrat*, Sept. 30: A strange and fatal disease has attacked the horses near the foothills, above Rockville. Some 10 have died in a few days. Upon a post mortem examination the membrane that snpports the bowels is of a yellowish color and is soft and rotten, while the whole cavity ontside the intestines is filled with water. Messrs. Alex. and Joe Blake have lost six, while several other gentlemen in the neighborhood have lost from one to two. No remedies yet applied have arrested in the slightest degree the disease when a horse is attacked.

SUTTER.

EGYPTIAN CORN.—*Banner*, Sept. 28: We were shown yesterday a head of this curions grain, grown on the reclaimed tule lsnd in District No. 70, Sutter connty, where there are forty acres planted this year. The head is shaped like a bunch of grapes, and abont seven inches long. The seed grows very thick but small, and is extremely nutritlous as horse and chicken feed. The stalk grows to the hight of about five feet, and tnrns gracefnlly at the top, the head growing downward. This grain is produced from the seed fonnd in the hand of a mummy, we believe, in the mummy pits at Thebes, in Upper Egypt, a nnmber of years ago. We have never seen any report as to its effect upon the soil, nor its adsptability as food; but we should think that if it can be used generally it wonld become an importsnt crop. It is a cnrious one, at least.

TULARE.

MUSSEL SLOUGH.—*Delta*, Sept. 28: We visited the Mnssel slough country a few days ago. It is really astonishing to see the progress everywhere visible. The dry plains are rapidly giving way to evergreen verdnre, and the horn of plenty seems to have been poured ont over the whole laud. Hundreds of tons of melons, sqnashes, cucnmbers and other domestic vegetables are lying about loose. The rosds are lined with alfalfa, alfilarea and other native grasses in the utmost luxnriance. Several of onr Mussel slough snbscribers have raised melons this year weighing 75 pounds apiece. Mr. Lambert, on Cross creek, had several on his patch that would weigh that, and tons of them that would weigh 50 pounds each.

VENTURA.

THE FALL CLIP OF WOOL.—*Free Press*, Sept. 22: Sheep owners in this county are now busily reaping their semi-annusl crop of wool. Mr. Norwood and others inform ns that the yield is something extraordinary—the five months' growth actually weighing more than the seven months' growth clipped in the spring. This, of course, is due to the excellent pastursge, the result of last winter's rains. The same csuse also resnlts in cleaner wool, the heavy growth keeping down the dust and the rank burr clover stalks still standing np and preventing contact of the wool with the burrs, which fall to the ground when ripe. Even at present rates the fall clip will be largely remunerative, while shonld an advance in prices take place, which seems highly probable, a handsome gain will be the result. Those who held on to their sheep during last spring's "scare" have reason to congratulate themselves.

Washington Territory.

CROP PROSPECTS ON WHITE RIVER.—The Seattle *Intelligencer* says: "We learn that the farmers on White river are not yet through harvesting their grain crop. Two-thirds of the grain in the valley remains out, and unless the weather continnes as favorable as it has been for several days past, they apprehend serious damage to the grain crop. There has already been a considerable amount of grain damaged by the unseasonable rains; but if the weather continnes favorable the greater part of the crop can be garnered in good condition. The farmers along the river are beginning to look to the cultivation of hops as a more profitable business than the production of potstoes and grain. The big bngbear in their way seems to be the expense which must be incnrred in starting the business, the principal items in which are the constrnction of snitable buildings and setting out a yard. It is said to cost about $30 or $35 to pole and plant an acre to hops, and the buildings would necessarily be quite expensive, bnt all this seems a mere trifle when we consider the fact that a single crop will freqnently cover all the outlay incurred in planting and cultivating the hops and erecting buildings, etc. In consideration of the outlay which must be made before embarking in the bnsiness, and the uncertainty of getting a good price for their hops each season, some of the farmers seem to be in a dilemma as to which, in the long run, will be the most profitable, the hop or the dairy business, as the soil there is propitions to the growth of grass, and things considered the valley is very favorable to the production of cheese and bntter, which are always staple articles. If bntter should not bring more than 25 cents per ponnd they would then make a good profit.

A RECENT nnmber of the Bay City (Michigan) *Lumbermen's Gazette* contained the following: "The emigration of mill operatives and machinists to the Pacific slope still continues, more particularly to Puget sonnd and Washington Territory, both of which are rapidly coming into prominence as lumber producing regions."

NEARLY half a million dollars in Rnssian rnbles have arrived in New York, and will be converted into gold coin.

Pacific Coast Awards at the Centennial.

The awards of medals and diplomas at the Centennial exhibition have nearly all been made by the president of the Centennial com mission. There are still some 4,000 to be passed upon. We give below those made to Pacific coast exhibitors, as far as made public:

California.

San Francisco—J. W. Gashwiler, silver and gold ores; John S. Frink, silver ores; William Willis, silver ores; Jas S. Pierce, gold gravel and cement; J. A. Pritchard, silver ores; Thomss Ball, qnicksilver ores; Joel F. Lightener, gold and silver ores; Bradley & Rulofson, photographic desigus; Will & Finck, table cutlery; Tibnrcio Parrott, sulphnr and quicksilver; W. Leets Oliver, gold ores; B. B. Minor, silver and gold ores; W. F. Palmer, axes, hatchets, adzes, chisels, drawknives; Newman & Co., glass demijohns covered with tnle packing; Consolidated Tobacco Company of California, cigars and cnt smoking and granulated tobacco; J. S. Harbison, honey; Adolph Asman, caviar prepared from cod roe; Hopgood & Co., csnned salmon; Miller & Sievers, cones of California *coniferæ;* Oscar Tiffany, fruit-drying machine; Mission Woolen Co., blankets; Joseph Neumann, raw silks and silk cocoons; Herzog & Co., imitation of horse-hair gavel; Louis Harrison, railroad axle and independent wheels; Mrs. A. G. Supplee, needlework; Thomas Houseworth, landscspe photographs; C. E. Watkins, photographs.

Temescal—Sau Jacinto tin mannfactnring compauy, tin and tin ores.

New Almaden—J. B. Randol, quicksilver ores.

Lake connty—Great Western quicksilver mines, ores.

Napa City—George Fellows, quicksilver ores.

Cherokee Buttes—Louis Glass, gold, gravel and cement.

Chico—George A. Dietz, fruit dryer.

Woodlsnd—R. B. Blowers, dried fruits.

Dutch Flat—T. B. Lndlow, Cedar Creek mining company, gold, gravels and cement.

French Corral—V. G. Bell, gold gravel and cement.

Wines—The following awsrds to California wine exhibitors are made: Kohler & Frohlinq for Rose of Pern, Riessling, and Dry Muscatel; Buena Vista company, for dry claret; Perkins, Stern & Co., wine; Gustave Mahe, California Golden wine; Keller & Co., La France, white wine; Geu. Naglee, wine. All the above are high awards, and all for dry wines; high awards meaning a favorable report accompanying the medal.

Nevada.

Virginia City — Johu Lsmbert, gold-bearing silver ores; John W. Mackey, gold-bearing silver ores; S. L Jones, gold-bearing silver ores; Theodore Winters, gold-bearing silver ores; T. C. Kyles, gold-bearing silver ores; J. A. Myrick, gold-bearing silver ores; Henry Donnelly, gold-bearing silver [ore; James G. Fair, gold-bearing silver ore; S. T. Curtis, gold-bearing silver ore.

Austin—Melville Cnrtis, silver bullion, silver pulp, etc.; Theodore Hale, native snlphnr; A. Cnrtis, silver ores.

Churchill connty—B. F. Leet, salt and saltpeter; Browning, crude soda.

Enreka—Thomas Wren, silver and lead ores; John Shaw, gold-bearing silver and lead ores; James M Haggin, gold-bearing silver and lesd ores; J. J. Corrigan, gold-bearing silver and lead ores; Rhodes & Wasson, borax and salt.

Pine Grove District—E. R. Willis, gold-bearing ores.

Cortez Mining District—S. Wenden, silver and lead ores; Joseph Trask, silver ores.

Battle Mountain—Joseph Richards, copper ores.

Morey District—W. F. Randolph, silver ores.

Pioche—Captain H. H. Day, silver ores; T. A. Butler, silver ores; Charles G. Heath, silver ores and rock salt.

Gold Hill—Charles C. Stevenson, amalgamating mschine.

Unionville—J. C. Fall, silver ores.

Cornucopia Mining District—Dr. J. M. Goodfellow, silver ores.

Belmont—J. Grimes, silver ores; L. Hanchett, silver ores.

Oneota Mining District—John Howell, silver ores.

Mineral Hill—Captain F. H. Haskins, silver ores.

Tybo—B. Judson, silver and lead ores.

Hamilton—Captain F. Drake, silver ores.

Reveille Mining District—George B. Clark, silver ores.

Oregon.

Portlaud—Koshland & Bros., hemlock and oak-tanned harness leather; McDorcu Bros., oatmeal; Oregon pickling company, preserved fish, salmon; Oregon furnitnre manufacturing company, burlap, maple and shittim wood; A Booth & Co., Oregon preserved salmon.

Clifton—J. W. & A. Cook, salmon in pickle and cans.

Columbia River—Myler & Jewett, canned salmon.

Salem—Benjamin Forstner, patent perpetusl lip auger-bits.

Oregon City—D. D. Prettyman, Oregon City mills, flonr from winter wheat; Oregon City woolen mills, fancy cassimeres and blankets; John Marion, pruning shears.

Baker City—J. C. Jackson, gold ores.

Washinglon Territory.

Olympia—W. O. Bnsh, cereals:

Eagle Cliff—William Hume, canned salmon.

Utah.

Salt Lske City—General P. Edward Connor, ores; P. R. Chambers, silver ores; Colonel William Johns, silver and lesd ores; W. B. Wells, silver and lead ores; D. K. Bentley, silver and lead ores; Walker Bros., silver and lead ores.

Lncien District—G. N. Adams, lead ores and arragonites.

St. George—W. S. Bsrbee, silver ores.

Bingham Canyon—Nez Perces and Montreal mines, silver aud lead ores.

British Columbia.

Victoria—F. M. John, specimens of prepared fish; Holbrook & Cnnningham, canned salmon; A. Loggie & Co., salt salmon tront in barrels and kits.

San Joaquin Fair.

The San Joaquin Valley fair at Stockton last week was a grand snccess, according to the reports which come to us. There was a large exhibition of commendable things and a large concourse of people to look npon them. The addiess was delivered by Rev. Thos. Guard, of Ssn Francisco, and was highly praised. We print below the official list of preminms, from which can be learned many facts concerning the prominent exhibitors:

Award of Premiums.

HORSES.—Thoroughbreds—Stalllons, 3 years and over, Joe Daniels, San Joaquin Stockbreeders' Association. Thoroughbred sire and 10 of his colts, Joe Daniels and 10 colts, 1 pr, $25. Thoroughbred mare and 3 colts, J. McCloud's Beauty, 1 pr, $10. Horses of all work.—Stallions—Henry Clsy, L. U. Shippee, 1 pr; Buckeye Boy, 2 years old, Jscob Meyer, 1 pr; stallion, 1 yesr old, Gov. Sprague, L. Hewlett, 1 pr; sucking colt, Tom Patcher, William Murrsy, 1 pr. Sucking filly Ila, 5 months, Louis Hewlett, 1 pr. Msre Flora, 2 years old, Wm. Murray, 1 pr. Spec pr reo to stallion Renben, Thomas Graves. Yearling filly, L. U. Shippee, 1 pr. Roadsters.—Black Prince, Samuel Hewlett, 12 years old, 1 pr. Mare Lizzie, 3 years old, Wm. Johnson, 1 pr. Stallion, 2 years old, Guy Livingston, Dennis Visher, 1 pr. Mare, 8 years old, Daisy, J. McCloud, 1 pr; also, 3-year-old gelding, Lieutenant, 1 pr. Stallion Franklin, 4 years old, John Vivian, 1 pr. Draft horses.—Spec pr rec for Normsn stallion, L. Hewlett. Stallion Ontario, P. Fee, 1 pr. Stallion Bismarck, 2 yesrs old, A. Girard, 1 pr. Mare 3 years old, Jane, J. C. White, 1 pr. Pair draft horses, Frank and John, Geo. F. Smith, 1 pr. Carrlage horses.—Dick and Friedlander, L. Hewlett, 1 pr; also, fav mention of John C. White's double team, Monte and Doc. Jacks and mnles.—Pair of mules, Puss and mste, L. U. Shippee, 1 pr. Sweepstakes—Horses.—Stsllion of any sge, Joe Daniels, 1 pr. Mare of any breed or age, Lize, John C. White.

DURHAM CATTLE.—Bull 4 yrs old, Orlando, by M. Wick, 1 pr. Bull 2 yrs old, Luan Duke, M. Wick, spec pr. Cow 1 yr old, Red Beauty, by M. Wick, 1 pr. Bull 2 yrs old, Red Thorndsle, by Coleman Younger, pr. Bull 1 yr old, Airdrie Thorndsle, by Coleman Younger, pr. Cow 5 yrs old, Gem, Coleman Younger, 1 pr; cow 2 yrs old, Rosa Neil, same owner, 1 pr; 1 heifer, Second Rose of Forest Home, Younger, 1 pr; for beat herd of Durham cattle, 1 pr to Coleman Younger. Spec pr to L. C. Pound, herd of Jersey; speo pr to M. Wick for his herd of Short Horns. Jersey cattle.—Bull 4 yrs old, Volunteer, L. E. Powers, 1 pr; bull 2 yrs old, Keystone, H. S. Sargent, 1 pr; cow 3 yrs old, Hazel, L. E. Powers, 1 pr; cow 2 yrs old, Minnie Powers, 1 pr; yearling heifer, Lslla Rookh, Powers, 1 pr.

SPANISH MERINO SHEEP.—Ram, Big Leg, 1 pr: 1 ram, Vermont, 1 pr; 1 ewe, Jennie, 1 pr: pen 5 ewes, 1 pr; best pen of yearling lambs, 1 pr; hest ewe lambs, 1 pr; best ram snd 5 lambs, 1 pr. Sweepstakes—Best ewe of any age, Big Leg, 1 pr. All owned by L. U. Shippee.

POULTRY.—Polands, 1 pr to W. G. Wilkins; Cochins, 1 pr to A. G. Brown; White Leghorns, 1 pr to A. G. Brown; native poultry, 1 pr to Robert Reed; Bantams, 1 pr to W. H. Van Vlear; exhibit of all kinds, to W. G. Wilkins; lot of ducks, 1 pr to A. G. Brown; exhibit of rabbits, B. Lyons.

PRESERVED FRUITS.—Gooseberries preserved in spirits, Mrs. Jos. Hale; coll of plums in spirits, Miss Mary Allen; preserved blackberries, Mrs. W. C. Miller; cherries, Mrs. A. G. Brown; peaches, Mrs. W. C. Miller grapes, Mrs. A. G. Brown. Spec pr to N. Vizetich for tomalo catsup.

FRUITS PRESERVED IN SUGAR.—Exhibit Mrs. Jos. Hale, $5; quinces and peaches, Mrs. A. G. Brown, $5; plums and crab apples, Mrs. Jos. Hale, $4; pears, Mrs. W. G. Phelps, $2; apricots, Miss Mary Allen, $2; apricot, crab spple, plum and quince jellies, Mrs. Van-Vlear, $8; grape jelly, Mrs. W. C. Miller, $2; currant and blackberry jelly, Mrs. E. J. Smith, $4; Miss Alice Smallfield, Mrs. Jos. Hale, Mrs. W. G. Phelps and Mrs. W. C Miller were awarded prs for pickles.

RAISINS.—Box of raisins, Mrs. W. G. Phelps; sscond best box, Mrs. W. D. Ashley. Dried figs, I. D. Hamilton; second best, Mrs. W. G. Phelps. Dried peaches and apples, Robert Reid. Dried pears, Mrs. W. D. Ashley.

GREEN FRUITS.—Coll of apples, James Crozier, $10; second best, T. B. Day, $5; beat five varieties, J. Crozier; coll of pears, J. Crozier; second best, T. B. Day; beat five varieties, Mrs. Phelps; best three varieties, James Putnam; quinces, Robert Reid; coll of grapes, Geo. West; second best, James Putnam; best five varieties, Geo. West; second best, Jas. Putnam; single variety, Geo. West; raisin grapes, George West; coll of Figs, I. D. Hamilton; English walnuts, I. D. Hamilton; almonds, T. B. Day.

MISCELLANEOUS.—Sample of hops, G. W. Pinkham; wheat, barley, corn, beans and display of vegetables, T. B. Day. Dip rec for M. E. Cladic's display of pampas grass. Display of flowering plants in htoom, to D. Cameron, $10; also, for ornamental foliage, $4; 25 pounds of butter, Mrs. W. D Ashley, $5; Mrs. W. H. Lyons, Mrs. C. J. Smith, Miss Minnie Lyons and Mrs. Jos. Hale, premiums for home-made bread. Display of woolen goods, pr of $10 to Stockton mills. W. P. Miller and M. P. Henderson, of Stockton, prs for carriages and buggies; Kullman, Wagner & Co., display of leather. Pumps and castings, F. A. Ruhl.

CRAYONS, DRAWINGS, ETC.—Crsyon drawing, Miss Mary Allen; colored drawing, Jennie E. White; painting in water colors, Jennie E. White; pencil drawing, Mary F. Hamilton; frame of printing, D. H. Berdino; retouched photographs, J. P. Spooner; also exhibit of photographs.

FANCY WORK.—Miss Alice Parker, Mrs. E. J. Smith, Miss Emma Loring, Mrs. W. C. Miller, Mrs. J. W. Hart, Mrs. R. Tuttle, Mrs Julia Belding were awarded prs for various articles of handiwork, and special pra rec to Mrs. A. Wolf, Mrs. M. P. Henderson, Miss Julia Smith, five years old, and Mrs. E. J. Smith, Miss Grace Farrington, Mrs. M. Durant, Mrs. W. C. Miller and Miss A. Cadie were awarded prs for worsted work. Mrs. J. C. Reid, Miss Susie Burton, Mrs. I. D. Hamilton, Mrs. J. W. Hart and Mrs. W. C. Miller, embroidery; Miss Addie Leiller, feather flowers; Mrs. Durant, burwork; Mrs. Smallfield, wax flowers; Mrs. Henderson, Miss Mary L. Gail and others, for special exhibits; Mary E. Walker, pr for map drawing; E. E. Gross, 13 years old, for pen drawing.

Contra Costa Fair.

Premium List.

CLASS I.—Robert Halt—Nursery trees, pr rec.

CLASS II.—GRAIN, ETC.—R. O. Baldwin—Wheat, pr rec. Walter Benwick—Mangel wurtzel heets, pr rec; sorghum, pr rec. J. Bunnel—Potatoes, pr rec. W. L. McDonald—Dent corn, 1 pr, $5; corn meal, pr rec. H. M. Hollenbeck—Somerset oats from crop of 30 acres, pr rec. Chas. S. Lohse—Crop of wheat from 74 acres, averaging 2,256 pounds per acre, pr rec. John Anderson—Early Goodrich potatoes, 1 pr, $3.

CLASS III.—B. F. Beebe—Figs, two varieties, 1 pr, $1; also 1 pr for almonds, three varieties, $1. W. A. Cunningham—Coll peaches, 1 pr, $2.50; do single variety of peaches, $2.50. B. V. Merle—Quinces, 1 pr, $2.50. I. J. Smith—Coll of fruit, apples, pears, grapes and peaches, 1 pr, $20. R. O. Baldwin—Foreign figs, pr rec. James Tippett—Single variety apples, 1 pr, $2.50. H. Rasp—Coll grapes, 1 pr, $10; 1 pr best coll black foreign grapes.

CLASS V.—DRIED FRUIT, ETC.—Mrs. B. F. Beebe—Best fresh jar fruit, 1 pr, $10. Mrs. J. O. Boone—Fresh jar fruit, 2 pr, $5. Mrs. A. Shirran—Best fresh preserved fruit, 1 pr, $10. Mrs. Jas. Tippett, fresh preserved fruit, 2 pr, $5; and 2 pr rec for jellies. Miss Lulu Shuey—Coll of jellies, 1 pr rec. Mrs. J. O. Boone, Coll of pickles, 1 pr, $5. Mrs. Nellie Hurst—Coll of pickles, 2 pr rec. Mrs. T. Huckstep—Coll of dried fruit, 1 pr, $10. Mrs. C. S. Lohse—Coll dried fruit, 2 pr, $5. T. Z. Witten—Exhibit of strained honey, 1 pr, $2.50; also pr rec for honey in comb. Miss Octavia Rice—Strained honey, 2 pr rec. Mrs. J. C. Boone—Tomsto ketchup, pr rec.

CLASS VI.—BREAD, ETC.—Miss Lena Boone (of 14 years)—For best coll of bread, cakes, etc., 1 pr, $10. Miss Octavia Rice—For coll of hread, cakes, etc., 2 pr, $5. Miss Katie Shannon—Best sample of hread, 1 pr, $5; also pr rec for hrown hread. Mrs. M. A. Jones—For sample of bread, 2 pr, $2.50.

CLASS VII.—ART, ETC.—M. Dahlgren—Best sketches in oil, 1 pr, $5. Miss Mary Harlan—Second best sketches in oil, pr rec. Miss May Baldwin—Crayon drawing, 1 pr, $5; pencil drawings, 1 pr, $5. Miss Mary Harlan—Best water color painting, 1 pr, $5; and pr rec for a panel painting from nature. Miss Emma Samuels—Best coll of oil paintings, 1 pr, $25. Miss Ida S. Hall—Hair work bouquet, 1 pr, $5. Miss Lulu Shnay—Coll of minerals, etc., 1 pr, $5. Mrs. Nellie Hnrst—Feathsr work, pr rec; and for leather work, 1 pr, $5. Mrs. M. C. Hiller—Pictnre table, pr rec. Miss Annie Healey—2d grade botany, 1 pr, $10. penmanship, 2 pr, $5. Miss Flora M. Stone—Pencil sketch from nature, 1 pr of 2d class, $10. Miss Tillie Hathaway—1st grade class botany, 1 pr, $10. Miss Ida S. Hall—Penmanship, 1 pr of 2d grade, $10. Miss Ileen Porter—Penmanship, 1st grade, 2d pr, $5. Johnny Labaree—Penmanship, 1st grade, 1 pr, $10. Miss Kittie Sanford—Useful and fancy needlework, 2 pr, $10. Mrs. Mary A. Jones—Quilt, pr rec. Mrs. R. Whitlock—Hand made shirt, 1 pr, $5. Miss Elizabeth Hall—Chemise and petticoat, pr rec. Miss Tiltie Hathaway—Ussful and fancy needlework by miss under 14 years, pr, $5; worsted embroidery, pr rec; tatting, pr, $5; also for knitting, pr, $5. Mrs. J. A. Littlefield—Child's dress, 1 pr, $5 Miss Mary Worden—Useful needlework, 1 pr, $5. Mrs. M. W. Hall—Quilt, 1 pr, $5. Mrs. Nellie Hurst—Lady's dress, 1 pr, $5. Miss Octavia Rice—Useful needlework and articles of household ntility, 1 pr, $25. Miss Mary Ranlett—Useful and fancy needlework, 2 pr, $10.

CLASS VIII.—EMBROIDERY.—Mrs. Kitty Sanford—Tatting, 1 pr, $5. Miss Jeanatte Stone—Crochet work, pr rec. Miss Georgie Jones—Crochet work, pr, $5. Miss Mary Harlan—Raised worsted work, pr, $5; also, pr rec for wors ed toilet set. Miss Octavia Rice—Braid work, pr, 5. Miss Tillie Hathaway—Worsted slippers, pr reo. Mrs. A. Shirran—Cradle quilt, pr rec. Miss May Worden—Lamp mats, pr rec. Mrs. E. A. Smith—Embroidery, 1 pr, $15; best piece of embroidery, pr, $5. Miss Ida S. Hall—Crochet tidy by miss of 13 years, pr rec. Miss May Shuey—Quilts by miss of 7 years, pr rec. Miss Libby Tippett—Fancy and useful needlework, by miss under 14 years, 1 pr, $5. Miss Cora Boone—Usefnl and fancy needlework, by miss of 11 years, 2 pr, $2.50. Mrs. J. C. Boone—Knitted scarf, pr rec. Miss M. Fernandez—Mottoes on silk, pr rec.

CLASS IX.—FLOWERS, ETC.—Miss Octavia Rice—Vase bouquets, 1 pr, $2. Miss Emma Samuels—Herbarinm, 1 pr, $2. R. Hall—Pot plants, pr rec; do. for vase bouquets. Mrs. J. Baker—Pot plante, pr rec. Miss Lnlu Shuey—Pot plants, 1 pr, $2. Robert Hsstie—Hanging haskets, pr rec. Miss Lena Boone—Dried flowers, pr rec.

CLASS X.—DAIRY.—W. Renwick—Packed butter, 1 pr, $10. Mrs. S. Hodges—Packed butter, 2 pr, $5. R. H. Wight—Fresh hutter, 1 pr, $5; also, pr rec for cheess.

CLASS XI.—POULTRY.—J. Bunnell—Bronze turkey, pr rec. Mrs. J. M. Shuey—Exhibit of poultry, 1 pr, $5; pair of white Leghorn fowls, 1 pr, $2; pair turkeys, 1 pr, $5.

CLASS XII.—MACHINERY.—H. N. Dalton—For sidehill spring halance gang plow, 1 pr, $25; and pr rec for double break chisel cultivator. Nash, Miller & Co—For grain separator and fanning mill, pr rec.

CLASS XIV.—S. Rohin—Single buggy, pr rec.

CLASS XV.—LAUNDRY, ETC.—Mrs. A. W. Stone—Soft soap, 1 pr, $2.50. Mrs. J. Bunnell—Rug, pr rec. Mrs. I. J. Smith—Home made carpet—1 pr, $2.50. Alfred Apuariea—Washing machine—pr rec. Mrs. J. Baker—Soft soap, pr rec. Mrs. A. Shirran—Domestic hard sosp, pr rec.

CLASS XVI.—HORSES.—Thoroughbreds.—Ed. Murray—Stallion Overland, 9 yrs, with pedigree, $10. W. A. J. Gift—Bay mare Katie Gift, 9 vrs old, $10. Draft stallions.—G. S. Landrum—For 3 yr old stallion Coal Cutter, $10; 3 yr old mare, Queen, $10. John Gallirdo—7 yr old stallion John, $10. Roadsters.—Bernard Gallaghar—3 yr old colt Ben, pr rec. T. A. Rice—3 yr old filly Black Bess, $10. R. O. Baldwin—2 yr old stallion Gold Hill, $7. J. M. Jones—2 yr old mare Sally, $7. J. Fox—3 yr old stallion Dandy, $10; and 1 yr old filly Maggie, $7. W. M. Gorham—4 yr old colt George, $5; sucking colt, $5. Howard Wells—7 yr old stallion Cloud, family of five colts, $15. G. P. Loncks—5 yr old brown mare Queen, $10. W. P. Shannon—6 yr old stallion Burnam Patchen, $10. Farmer Sanford—Matched carriage horses, Belle and Fan, $10. Sweepstakes.—J. Cantua, 2 yr old colt Punch, $7. S. J. Tennent—7 yr old stallion Pinole Patchen, pr rec; sucking colt Bonaparte, $5. Howard Wells—Mare Josephine Magee, with family of five colts, pr rec. J. Murphy—1 yr old colt Prince, $7. H. H. Rockfeltow—9 yr old stallion, Cardinal, $10.

CLASS XVII.—CATTLE.—Durhams.—Silverio Soto—3 yr old bull Pacheco King, pr rec; 1 yr old heifer Beauty, $5. Julian Cantua—1 yr old bull calf Hawkstone, with pedigree, pr rec; same for yr old heifer. R. C. Baldwin—11 mo old bull Monntain Boy, pr rec; 2 yr old red heifor Myrtle, $10; also, for red heifer Village Bud, 15 moa old, pr reo. Charles Wood—8 yr old bull Monkey John, No. 10,054, $20. W. Z. Stone—For bull Joe Bowers, Jersey, $20. Smith Ashley—1 yr old Alderney bull, $5. Graded cattle.—Walter Renwick—2 yr old bull Ben Butler, Durham and Holstein stock, $7.50.

CLASS XIX.—SHEEP.—Silverio Soto—1 yr old Southdown buck, $7.50. J Cantua—3 yr old Merino hnck, $7.50. W. Z. Stone—Best buck on exhibition, $10. F. A. Hyde—3 yr old Cotswold buck, $7.50.

CLASS XX.—SWINE.—S. L. More—Poland China boar and sow, pr rec.

JACOB HUNTSINGER, late president of the Miners' Trust bank, at Pottsville, Pennsylvania, was re arrested on five distinct charges, covering alleged embezzlements to the extent of $200,000. He was sent to prison in default of $238,000 bail.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

San Francisco, Wednesday, Oct. 4th, 1876.

The notable feature of the week has been an advance in the local price for Shipping Wheat, in suswer to the progress which has been made in the csble quotations. To-day, Wednesday, $1.60 is offered qnite freely, and special ssles of Milling are reported at $1.62½.

Range of Cable Prices of Wheat.

The courae of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following tsble:

	Cal. Averaoe.		Club.	
Thursday	9s 8d@	9s 11d	9s 11d@10s	1d
Friday	9s 9d@10s	—	10s —@10s	3d
Satnrday	9s 8d@10s	—	10s —@10s	3d
Monday	9s 8d@10s	—	10s —@10s	3d
Tnesday	9s 11d@10s	2d	10s 2d@10s	6d
Wednesday	9s 11d@10s	2d	10s 2d@10s	6d

To-day's cabie qnotations to the Produce Exchange compare with same date in former years as follows:

	Average.		Club.	
1874	10s —@10s	3d	10s	4d@10s 9d
1875	11s 1d@11s	4d	11s	5d@11s 8d
1876	9s 11d@10s	2d	10s	2d@10s 6d

The Foreign Review.

The telegraphed report from the London *Mark Lane Express*, of October 2d, is as follows: Northern farmers made good use of the short interval of fine weather during the past week. Much, however, remains to be done. In some districts grain has been housed in a very satisfactory condition. Piowing will now occupy attention, and we may now hope for a more favorable seed time than we had last year. Supplies of home-grown Wheat have shown the prevalence of rain, by the poorness of their condition; this and the somewhat increaaed offerings have cansed a decline of a shilling per quarter. The condition of Barley has also been unsatisfactory, there being much discoloration by rain. Our imports, at the oommencement of the present cereal year, sre about half what they were at the eame time last year, while granary stocks, which were then increasing, are now, although large, slowly and surely diminishiug. Each week's list of arrivals shows that the supply from Atlantic ports is unusually light and in many cases, also, that from Russia and India. As the new crop of Csllifornia Wheat cannot arrive for some months, it appears aimost certain that should America decline to ship at present prices, nothing can prevent a rise in Wheat. The reins of prices are thus in the nands of America. Our local trade has been somewhat less animated, buyers snd seliers both waiting to see whether the supply will be increased by a large influx of grain from Atlantic ports. This momeutary lull is probsbly the precursor of great activity when the future course of supplies will be fully made manifest. There was little change in feeding stuffs during the week, but firmness has been the ruie. Oats and Beans advanced slightiy. Maize was steady for sound qualities on the spot, but rather easier for future delivery. The week's imports were a large floating cargo. Trade has been dull. Wheat declined about sixpence per quarter. The demand was very restricted. Maize is depressed snd declining in tendency.

Freights and Charters.

The ocean freight market, says the *Post*, has ruled quiet during the past week, owing perhaps to a reaction after the heavy business of the two preceding weeks and the advance in the price of Wheat in California. Rates for avaiiable Wheat tonnage show no weakening dispositiou, however, and shouid the English grain market continue to rise, engagements of spot tonnage will be as large ss ever. As near ss can be ascertained, Wheat charters are quotable at £3 2s 6d to a direct port and £3 5s to Cork for orders. We have now in port 81,569 tons of tonnage secured for Wheat and 7,017 tons engaged for miscellaneous purposes. The list of disengaged tonnsge foots up 25,692 tons. The totai amount of tonnage on the way to San Francisco, from all ports, is at the present writing 230,000 tons. The engagements of the week have been as follows: Br bark Lord Asburton, 879 tons, Wheat and mdse to Liverpool on owners' account; Am schr Rebecca J. Moulton, 537, Barley to Baltimore or New York, at or about $12; Br shi. City of Perth, 1,189, Wheat to Liverpool, £3 2s 6d; Fr bark Montmorency, 634, Wheat to Falmouth for orders on owners' account. Fr bark Reine du Monde, 941, Wheat from Aviia to Cork for orders, £3 2s 6d.

The Chicago Grain Market.

Chicaoo, October 1st.—The Wheat market during the past week has felt the full force of the corner, but the manipulators have not pushed their advantage, and settlements of September were made yesterday at nearly the highest price. The lowest price of the week was $1.07½. This time last year the price was about $1 12. The market closed rather heavy for options, owing to the unnatural pressure which has been exerted for the last month, and to the probability of heavy receipts for some weeks to come, as the country granaries are reported overstocked. Corn has been rather steady, ranging from 46¼c to 47¼c, and closing at 46¾c. Receipts of this cereai have beeu almost unprecedentedly heavy. Oats have shown little chauge. Rye has declined a trifle, and Barley, which has also been manipuiated, has been strong, closing at 87c. Receipts for the past week were: Wheat, 434,000 bushels; Corn, 2,356,000; Oats, 624,000. Shipments for the week were: Wheat, 241,000 bushels; Corn, 1,601,000; Oats, 272,600; against Wheat, 630,000, Corn, 71,000; Oats, 556,000, last year.

Our September Shipment.

The export of Wheat during the montb just closed has been of unusuaiiy large amount, larger than in any previoua month in the history of the trade. The *Post* makes the following summary: A fleet of 52 vessels, carrying 1,635,179 centals, valued at $2,547,298, has cleared for the United Kingdom and Continental ports. Adding a small shipment made to another part of the world, we find the total export movement to amount to 1,635,235 centals, valued at $2,547,393. The following exhibit shows the exports for the first quarter of the new cereal year.

	Centals.	Value.
July	645,810	$1,025,901
August	944,912	1,471,588
September	1,635,235	2,547,393
Total, 1st quarter 1876–77	3,225,957	$5,044,882
Total, 1st quarter 1875–76	2,009,105	4,194,199
Increase this year	1,216,852	$ 850,683

Acting upon the supposition that our Wheat yield this year is not iargely in excess of last season's crops, the above large export movement augurs well for the price of the cereai in the near future.

Eastern Wool Markets.

New York, Sept. 30th.—The Wool market has been fairly active this week. Manufacturers recognize the fact that prices are likely to go higher before going lower, and they have in most cases met holders at the recent rates demauded. There now exists no doubt as to the future course of prices. Goods are selling readily, and manufacturers are in want of material to keep their mills running. Stocks of the raw article are light, especially of the finer grades, and the outlook is very favorable for holders. A choice lot of XX Ohio fleece sold up to 48c, but this price is really above the market value, ss fine parcels can he obtained at 45c.

Spring California, exceptionally fine, is held at 28@30c, but average lots are offered at 26@26½c. The new Fsll California is quoted at 20@21c, for really free, but of this description the supply is exceedingly light. Western Texas is generally held above the views of buyers, and in consequence the market for that description is quiet. Foreign stock meets with but little inquiry, but in view of the advanced demands for domestic, holders show no disposition to shade their present views. The sales of the week are, 342,000 lbs Spring California at 19@26½c; 3,000 lbs scoured do, 57½c; 100,000 lbs No. 1 pulled do, 25½c; 127,000 lbs Fall do, 16@17c; 45,000 lbs Eastern Texas, 25@26c; 265,000 lbs X, XX and XXX Ohio fleece, 48c; 1,000 lbs washed Westeru do, 36c: 2,000 lbs do Wisconsin, 35c; 15,000 lbs medium unwashed do, 2 @27c; 9,000 lbs State do, 37c; 12,000 lbs Creole pulled, 165 bags old X do, 124 do spot do, 11 do lambs do, 7 do No. 2 do, 38 do No. 1 do, 10 do black do, 240,000 lbs Ohio combing and delaine, 5,000 lbs No. 1 Wisconsin and 10,000 lbs State, on private terms.

Boston, Sept. 30th.—The demand for Wool has not been very urgent or pressing during the past week, and has been exciusiveiy from manufacturers. The market is steady. Sales of Ohio and Pennsylvania fleeces have been 223 000 lbs, and inciudes X and No. 1 at 38@42½c; XX at 42½@45c, mostly at the latter rate, and XXX at 47c. The market was quite firm st these prices. The sales of Michigan have been 133,000 lbs, at 35@38c for some choice lots of No. 1, but sales were difficult to make at over 35@36c for good average lots. The sales of Wisconsin have been at 35@36c, and the market is quite firm. Combing and delaine have been in active demand, but there is no change in the prices. Desirable lots are held quite firm. The sales have ranged from 39@47c, a decline as to quaiity, and from 45@50 for combing. These prices are readily obtained for aii lots offering. California continues in very fair demand, and supplies of Spring are soid up close. Fall does not meet with so ready a sale, as buyers are limited. Transactions include 335,000 lbs Spring, at 18@32c, some good choice lots seiling at from 28@32c, and 160 000 lbs Fall at 17@26c, as to quality. Pulled Wools have been rather more inquired for, and are steady and firm. The sales have been 182,000 lbs at 27½c but include choice lots of super and X at 40c.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week Sep. 13.	Week Sept. 20	Week Sept. 27	Week Oct. 4
Flour, qnarter sacks	52 935	61,731	55,198	43,410
Wheat, centals	485,636	394,552	387,481	485,903
Barley, centals	54,196	68,994	60,354	369,475
Beans, sacks	2,326	283	2,766	1,966
Corn, centals	1,875	2,454	2,071	2,911
Oats, centals	12,162	15,611	9,255	20,702
Potatoes, sacks	19,331	20,300	15,292	16,685
Onions, sacks	1,318	768	1,223	1,123
Wool, hales	4,795	5,079	6,610	8,186
Hops, bales	446	435	717	1,162
Hsy, baies	2,139	2,575	2,093	2,017

Bags—Prices for standard Wheat Bags are unchanged. Jobbing rates are nominaiiy at 12c, and larger ger lots could probabiy be secured at 11½c. There is a report that 100,000 English hand-sewed Wheat Bags sold at 10¾c, but we know nothing certain of it. There has been an arrival of English Bags by sea, but the stock was purchased to arrive and is stowed away. The trade is now exceedingly light in Wheat Bags. The supply needed in the country seems to be well supplied and future purchsses are expected to be in small amount. Other Bags and Bagging Msterial is unchanged from former rates.

Barley—There is still a fair demand for Brewing Barley for Esstern shipment, and a vessel has been chartered to load a cargo to an Atlantic port. The advance in the freight rates of the Central Pscific raiiroad will have the effect of sending considerabie of the cereal around Cape Horn, and vessels on the berth for New York will doubtless carry large quantities for some time to come. The price in this market is maintained. We note sales: 500 sks choice Coast Feed 95c; 500 sks dark Coast Chevalier, $1; 600 ctls choice Coast Feed, 97½c—all silver; 175 tons Coast Brewing, $1.07½, on the cars; 50 tons do do, $1.05, on ship; 400 ske Bay Chevalier, $1.25; 500 sks Coast Feed, 92½c; 1,500 do Bay, 95c; 540 do do, 97½c; 250 do Bay, $1—all silver; 500 sks dark Chevalier, $1; 2,000 ctls new Brewing, $1.05—both gold; 200 sks Bay Brewing, $1.05, goid; 125 sks Coast Feed, poor, 85c, silver; 400 sks Coast Feed, 95c, siiver, per cti.

Beans—Beans show an improving tendency, as shown in our quotations.

Corn—Corn is unchanged in price. We note sales: 100 sks round, $1.17½, half silver; 420 sks large Yellow, $1.15; 200 do do, $1.12½@1.15; 200 do smali do, $1.15@1.20 per ctl, all siiver.

Dairy Produce—Fresh Butter of first qusiity sells briskiy. There is a wide range in the quaiity now marketed. Prices are same ae last week. Cheese is unchanged.

Eggs—Eggs have advanced to 45@47½c.

Feed—Bran is advanced $1 per ton, aud Corn Meal declines 50c per ton. Tho range for Hay is unchanged, viz.: $7.50 to $13.50 per ton. We note sales: 63 tons Clover and Wheat in two lots, the former at $9.50 and the iatter at $10; 83 tons good Oat, in two lots, at $10.50; 27 do choice do, $11.25; 62 do fair Oat and Wheat at $9@10.50; 22 do choice Wheat, $13.50 per ton do Strained.

Fruit—Los Angeles Orauges are beginning to appear. Limes are exceeding scarce and have doubled in price. Grapes and other fruits have fiuctuated but very little during the week. To-day's prices may be found below.

Hops—Hops are rising. We note sales in this market of 144 hales at 26@28c. There are good supplies of Hops now in tho city, but they are firmly held above the market—some at 30c. We notice that some St. Helena growers are anticipating 50o for their product. Emmet Wells reports the New York market for the week ending September 22d, as follows:

"Our market has been as active as the limited supply of stock here would admit. Orders are coming in in a small way both from England and Germany for our fine Hops, a few orders being without limit as to the price, but very explicit as to quality, none but strictle choice and cieanly picked Hops being wanted at any price for this purpose. We ship out a littie over 600 bales this week (mostly to London), which is a pretty fair beginning, and which just about cleans up this week's receipts. The export trade could be largely increased were the Hops here to select from; as it is, shippers have to take such as they csn get or wait for a better supply. In the interior we hear of very few transactions, buyers stiil being unwilling to meet the growers on price; 35@40c is the asking price, not a few growers expecting to realize as high as 50c. We quote an advance of 2c ₱ lb this week on choice shipping Hops. Prices are now well established here, and consigners may rely upon realizing the figures we quote for sound merchantsble Hops. New Californians are quoted at 33@35c."

Oats—Oats are selling at former prices. We note sales: 100 sks good Coast at 1.37½c, half siiver; 240 do good do, $1.40; 100 do do, $1.42½, all silver; 140 do choice Surprise, $1.81¼ ₱ cti, half siiver; 650 sks Feed, $1.45; 200 sks Light, $1.50.

Onions—Onions are improving. The market is now well supplied with Silver Skins, which are quotable at 70@75c. Reds are almost unsaleable. The stock now received is chiefly from the Sacramento river, San Leandro and elsewhere. Union City Onions have not yet come in in distinctive amounts.

Potatoes—Half Moon Bay are a point lower, and Cuffey's Cove do not exceed $1.05, to day. We note sales of Half Moon Bays at 50@80c; Cuffey's Cove at 85c @$1 00 and Sweets at 75c, but these figures are exceeded by choice lots.

Poultry—Turkeys are higher and Ducks are easier. Game is plenty. Quails seii at $1.75@2.00 ₱ doz. Rabbits and Harea are cheaper.

Provisions—Fresh Beef and Mutton are stiii abundant. Beef will not bear an outside quotation of more than 7c for first quality. Pork is also in abundant supply and, notwithstanding the brisk demand, shades off a fraction. The trade in cnred meats is active. Eastern Hams sre becoming reduced in stock rapidiy.

Rye—Rye is unchsnged.

Vegetables—There has been but little fiuctuation in Vegetables. Green Peas are a shade better, and Canteloupes are becoming scarce. They are worth to-day $2.00@2.25 ₱ doz.

Wheat—As noted elsewhere there has come an advance of a point in local prices. Sales are reported today as high as $1.62½. We note transactions during the week as follows: 3,000 sks choice Milling, $1.60; 220 do Superfine do, $1.30; 500 ctls Milling, $1.55; 175 ctls choice do, $1.57½; 700 ctls Fair do, $1.50; 500 ctls choice do, $1.60; 3,000 ctls choice Shipping, $1.52½; 400 sks Milling, $1.52½; 3,000 sks fair Shipping, $1.52½; 400 sks superfine Milling, $1.52½; 1,200 sks choice Milling, $1.60; 800 do Shipping, $1.55. There have been large shipments of Flour to China and Liverpool. The exports of Flour for September aggregate 50,000 lbs.

Wool—Wool sales have been at last week's prices. We note sales of 200,000 free Fall at 12@16c, and 70,000 do do at 14@16c.

DOMESTIC PRODUCE.

[WHOLESALE.]

Wednesday M., Oct. 4, 1876.

BEANS.

Bayo, ₱ ctl	1 75@2 00
Butter	2 00@2 25
Pea	1 92½@2 00
Pink	2 25@2 50
Sm'l white	1 85@1 90
Lima	1 90@2 00

BROOM CORN.

Common, ₱ lb	2 @ 3
Choice, do	4 @ 5

COTTON.

Cotton, ₱ lb	15 @ 18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	42½@ 45
Point Reyes	45 @ 47½
Pickle Roll	32½@ 35
Firkin	25 @ 30
W'st'n Reserve	16 @ 25
New York	— @ —

CHEESE.

Cheese, Cal., lb	10 @ 15
do Old	— @ —
Eastern	12½ @ 15

EGGS.

Cal. fresh ₱ doz	45 @ 47½
Ducks'	40 @ —
Oregon	37½@ —
Eastern	21 @ 30

FEED.

Bran, per ton	17 00 @—
Corn Meal	27 50 @—
Hay	7 00 @13 50
Middlings	24 00 @—
Oil cake meal	— @33 50
Straw, ₱ bale	55 @ 60

FLOUR.

Extra ₱ bbl	4 50 @5 00
Superfine	4 00 @4 25
Graham, ₱ bbl	4 50 @4 75

FRESH MEAT.

Beef 1st quality lb	6 @ 7½
Second do	5 @ 5¾
Third do	3½ @ 4
Mutton	3½ @ 4
Pork, undressed	6½ @ 6¾
do, dressed	9 @ 9¾
Veal	5½@ 6
Milk Calves	5½@ 7

GRAIN, ETC.

Barley, feed ctl	80 @ 1 00
do brewing	1 00 @ 1 10
Chevalier	1 30 @ 1 40
Corn, White	1 20 @ 1 22½
do Yellow	1 17½ @ 1 20
Oats	1 40 @ 1 60
Milling	1 70 @ 1 75
Rye	1 50 @ 1 55
Wheat, shipping	1 52½@1 60
do milling	1 55 @1 60

HIDES.

Hides, dry	14 @ 15
do wet salted	5½@ 7

HONEY, ETC.

Beeswax, per lb	25 @ 30
Honey in comb	10 @ 12½
do Strained	6 @ 8

HOPS.

New crop	25 @ 28

NUTS—Jobbing.

Alm'ds h'rd sh'l lb	8 @ —
do, soft sh'l	14 @ 16
Brazil do	14 @ 16
Cal. Walnuts	12 @ 14
Chile Walnuts	11 @ 12½
Pecanuts	17 @ 18
Peanuts per lb	8 @ 9
Filberts	15 @ 16

ONIONS.

Union City ctl	— @—
Stockton	76 @— 75

POTATOES.

Petaluma, ₱ ctl	— @ —
Salt Lake	— @ —
Humboldt	— @ —
Half Moon bay	70 @ 85
Cuffey Cove	90 @1 05
Early Rose new	50 @ 75
Sweet	75 @1 00

POULTRY & GAME.

Gens, per dz	7 50 @9 00
Roosters	6 00 @7 00
Broilers	3 50 @4 50
Ducks, tame, dz	7 00 @8 00
do Muscovy	8 00 @—
do Canvass	— @8 00
Geese, per pair	2 00 @2 50
Wild Gray dz	3 00 @4 00
White	1 50 @2 00
Turkeys, Live, lb	18 @ 20
do Dressed	20 @ 22
Quail, per doz	1 75 @2 00
Snipe, Eng., doz	— @—
Doves, per dozen	50 @ 57
Rabbits	1 00 @1 25
Hare, per doz	2 00 @2 50
Venison lb	7 @ 10

PROVISIONS.

Cal. Bacon, L't, lb	16 @ 17
do Medium	15½@ 16
do Heavy	— @ 15
Lard	14 @ 16½
Cal. Smoked Beef	12½@ 14
Eastern do	— @ —
East'rn Should's	— @ 12
Hams, Cal.	15 @ 15½
do Armour	— @ 17
do Worster's	— @ 19
do Dupee's	19 @ 19½
do Davis Bros'	— @ 19

SEEDS.

Alfalfa, Chile lb	8 @ 10
do California	11 @ 12
Canary	9 @ 10
Clover Red	— @ 22
do White	50 @ 55
Cotton	6 @ 10
Flaxseed	— @ 3½
Hemp	12½@ —
Italian Rye Grass	25 @ 30
Perennial do	20 @ 30
Millet	10 @ 12
Mustard, white	5 @ 6
do, Brown	3 @ 3½
Rape	5 @ 8
Ky. Blue Grass	30 @ —
do 2d quality	29 @ —
Sweet V Grass	— @ 75
Orchard do	30 @ 35
Red Top do	— @ 25
Hungarian do	8 @ 12
Lawn do	50 @ —
Mesquit do	20 @ 25
Timothy	11 @ 13

TALLOW.

Crude, ₱ lb	6¼@ 6½
Refined	8¾@ 9

WOOL, ETC.

FALL—	
Free	12 @ 14
Choice	14 @ 16
Northern	17 @ 20
Burry	10 @ 13
Oregon Eastern	20 @ —
do Valley	25 @ —

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by Sutro & Co.]

San Francisco, Oct. 4, 3 P. M.

Legal Tenders in S. F., 11 A. M., 91 to 91½. Silver 62@65½.

Gold in N. Y., 109⅞

Gold Bars, 880 to 890. Silver Bars, 12@20 per cent. discount.

Exchange on N.Y., 50@55-100 per cent. premium for gold; on London bankers, 49; Commercial, 49¼; Paris, five francs per dollar; Mexican dollars, 6 per cent. discount.

London — Consols, 96½; Bonds, 102⅛

Quicksilver in S. F., by the flask, per lb, 44@45c.

GENERAL MERCHANDISE.

WHOLESALE.]

Wednesday M., Oct. 4, 1876.

BAGS.

Eng. Stand Wht	11½@12
Neville & Co's	—
Hand Sewed	11½@12
24x36	— @—
24x40	— @—
Machine do 24x40	— @15½
" " 23x40	14½@—
" " 22x40	13 @—
" " 22x36	11½@12
Flour Sacks ½s	9 @11
" " ¼s	8 @ 7
" " ⅛s	4½@ 5
Hessian 60-in	12¾@14½
do 45-in	10 @—
do 40-in	8½@—
Wool Sacks, 3½ lbs	45 @50
do 4 "	50 @52½
Stand. Gunnies	11½@12
single seam do	— @—
Bean Bags	7 @ 8

CANNED GOODS.

Asst'd Pie Fruits in 2½ lb cans	2 75 @ 3 00
do Table do	3 75 @ 4 25
Jams & Jellies	4 25 @ —
Pickles ½ gl	— @ 3 50
Sardines, qr box	1 65 @ 1 90
do hf boxes	3 00 @— —

COAL—Jobbing.

Australian, ₱ ton	8 75 @ 9 00
Coos Bay	— @ 9 00
Bellingham Bay	— @ 9 00
Seattle	— @ 9 00
Cumberl'd	14 00@16 00
Mt. Diablo	5 75 @7 75
Lehigh	— @22 00
Liverpool	8 50 @10 00
West Hartley	— @14 00
Scotch	9 00 @10 00
Scranton	13 00 @16 00
Vancouver's Isl.	10 50 @ 2 00
Charcoal, ₱ sk	75 @ —
Coke, ₱ bbl	— @ 60

COFFEE.

Sandwich Island	— @ 21½
Costa Rica per lb	20½@ 21
Guatemala	— @ 40
Java	— @ 25
Manilla	— @ 19
Ground in oils	25 @ —
Chicory	27 @ —

FISH.

Sao, Dry Cod, new	5½@ 6½
cases	6 @ 7½
do boneless	8½@ 10
Eastern Cod	8 @ 9½
Salmon in bhls	6 50 @7 25
do ½ bbls	3 75 @4 00
do 2lb cans	2 40 @—
do 1lb cans	1 20 @—
do Col. R. ½ lb	4 25 @4 50
Pick. Cod, bbls	22 00 @—
do ½ bbls	11 00 @—
Mack'l, No. 1, ⅛ bls	11 00 @—
" Extra	— @12 00
" in kits	1 90 @2 25
" Ex mess	3 50 @4 00
" Ex mess, ½ bs	—@12 00
Pic'd Herr'g, bx	3 00 @ 3 50
Bos. Sm'k'd Her'g	40 @ 50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl	2 00@ 2 25
Cement, Rosendals, do	2 75@ 3 50
do Portland do	4 75@ 5 50
Plaster, Golden Gate Mills	3 00@ 3 25
Land Plaster, ₱ ton	10 00@12 50

MISCELLANEOUS.

Pulu	@ 7½

NAILS.

Assorted sizs, keg	3 75 @4 00

OILS.

Pacific Glne Co Neat F't No. 1	1 00 @ 90
Pure	— @ —
Castor Oil, No. 1	— @ 95
Baker's A A	— @1 15
Cocoannt	— @ 60
Olive Plagniol	5 50 @5 75
do Possel	4 75 @5 00
Palm lb	9 @—
Linseed, raw	— @ 62½
do boiled	— @ 67½
China nut in os	65 @ —
Sperm, crude	1 80 @1 85
do bleached	1 90 @2 25
Coast Whales	47½@ 50
Polar, refined	— @ 50
Lard	— @1 20
Oleophine	— @ 37
Devoe's Bril't	38 @ 39
Long Island	— @ 25
Eureka	26 @ 27
Devoe's Petro'm	— @ 42½
Barrel kerosene	23 @ 25
Olive	— @3 50
Downer Kerose'e	— @ 37½
Elaine	— @ 42
Gas Light Oil	23 @ 25

PAINTS.

Pure White Lead	8¾ @10¼
Whiting	— @ 1¾
Putty	4 @ 5
Chalk	— @ 1½
Paris White	— @ 2½
Ochre	— @ 3½
Venetian Red	— @ 3½
Red Lead	10 @ 11
Litharge	10 @ 11
Eng. Vermillion	—@1 25
Averill Chemical Paint, per gal. White & tints	2 00 @2 40
Green, Blue & Ch Yellow	3 00 @3 50
Light Red	3 00 @3 50
Metallic Roof	1 30 @1 60

RICE.

Uhina No. 1	1¼@ 5¼
Hawaiian, ₱ lb	7½@ 8
Carolina, ₱ lb	10 @

SALT.

Cal. Bay, per ton	10 00@14 00
do Common	5 00@ 7 00
Carmen Island	12 00@15 00
Liverpool fine	13 50@14 00

SOAP.

Castile ₱ lb	10 @ 10½
Common brands	4½@ 6
Fancy do	7 @ 8

CANDLES.

Grant's	16 @ 16½
Mitchell's	18 @ 20

SPICES.

Cloves ₱ lb	45 @ 47½
Cassia	23½@ 26¾
Citron	28 @ 30
Nutmegs	95 @ 87½
Whole Pepper	14¾@ 17½
Pimento	16 @ 17½
Gr'nd Allsp pr dz	— @1 12
do Cassia do	— @1 50
do Cloves do	— @1 50
do Mustard do	— @1 20
do Ginger do	— @1 00
do Pepper do	— @1 00
do Mace do	— @2 00
Bowen's Pure Ground ₱ lb	— @ 50

SUGAR, ETC.

Cal. Cube per lb	— @ 12¼
Circle A crushed	— @ 12
Powdered	— @ 12¼
Fine crushed	— @ 12
Granulated	— @ 11¾
Golden C	— @ 10¾
Hawaiian	10 @ 11
Cal. Syrup in kgs	— @ 62½
Hawaiian Molasses	25 @ 27½

TEA.

Oolong, Canton, lb	19 @ 25
do Amoy	28 @ 50
do Formosa	40 @ 80
Imperial, Canton	25 @ 40
do Pingsuey	45 @ 80
do Moynne	60 @1 00
Gunpo'der, Cant.	75 @1 00
do Pingsuey	50 @ 90
do Moynne	55 @1 25
Y'ng Hy., Canton	28 @ 40
do Pingsuey	40 @ 70
do Moyune	65 @ 85
Japan, ½ chests, bulk	30 @ 75
Japan, lacquered hxs, 4⅛ and 5 lbs	45 @ 67
Japan do, 3 lb bxs	45 @ 90
do pl'n bx, 4½ lb	35 @ 65
do ½@1 lb paper	30 @ 55

TURPENTINE.

Eastern	51½@55

FRUITS AND VEGETABLES.

[WHOLESALE.]

Wednesday M., Oct. 4, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M	— —@— —
Tahiti, do	30 00@35 00
Cal. do	— —@— —
Limes, Mexican, ₱ M	20 00@— —
Malaga Lemons, ₱ bx	— —@— —
Cal. ₱ 100	2 00@ 2 50
do Sicily ₱ b'x	15 00@— —
Bananas, ₱ bnch	2 00@ 2 00
Cocoanuts, ₱ 100	6 00@ 7 00
Pineapples, ₱ doz	— @ —
Apples, ₱ box	50 @1 00
Apricots, ₱ lb	— @ —
Blackberries ose	— @ —
Cherries ₱ lb	— @ —
Plums ₱ lb	15½@ 16
Prunes ₱ lb	2 @ 4
Figs	4 @ 5
Gooseberries	— @ —
Huckleberries	— @ —
Strawber's ₱ cs	6 00 @7 00
Pomgranates	— @ —
Raspberries	— @ —
Currants, ₱ os	— @ —
Cranberries bbl	13 00 @14 00
Peaches, ₱ lb	5 @ 9
Pears, ₱ bx	50 @1 00
do Choice	2 00 @2 50
Orab apples, ₱ lb	2 @ 3
Grapes ₱ box	37½@ 50
Rose of Peru	50@ 75
Muscat	50@1 00
Sweetwater	40@ 60
Black Hamburg	50@ 75
Tokay	50@ 75
Morocco	1 00@ —
Quinces	75@1 00

DRIED FRUIT.

Apples, ₱ lb	5 @ 7
Pears, ₱ lb	7 @ 10
Peaches, ₱ lb	5 @ 7
Apricots, ₱ lb	10 @12½
Plums, ₱ lb	3 @ 4
Pitted, do ₱ lb	12 @13
Raisins, imported	3 25 @3 75
Cal. Raisins	5 @ 10
Black Figs, ₱ lb	5@7
White, do	12½@15
Prunes	12½@17
Nitron	28 @ 30
Zante Currants	9 @ 10

VEGETABLES.

Asparagus ₱ lb	— @—
Beets ₱ ctl	—@75
Cabbage, ₱ 100 lbs	50@ 60
Carrots, ₱ 100 lbs	50@ 62½
Cauliflower, doz	50@ 62½
Celery, doz	50 @—
Garlic, ₱ lb	2½@ 3
Green Peas ₱ lb	3 @—
Green Corn ₱ doz	12½@ 18
Sum'r Squash ₱ box	50 @60
Marro'fat Sqsh, tn	10 00@—
Artichokes, ₱ doz	— @—
String Beans, ₱ lb	2 @ 2¼
Lima Beans	3½@ 4
Parsnips	— @—
Shell Beans	1½@ 2
Peppers, green, bx	40 @60
Okra	6 @ 7
Cucumbers, ₱ box	30@ 40
Tomatoes, box	25@ 50
Egg Plant, box	1 25@1 50
Rhubarb box	—@—
Lettuce, doz	10@ —
Turnips, pr ctl	50@ 62½
Watermelons doz	75@1 25
Canteloupes do	2 00@2 25

RETAIL GROCERIES, ETC.

Wednesday, M., Oct. 4, 1876.

Butter, Cal. ch'ice	40	@50	
Cheese, lb	18	@30	
Eastern	25	@30	
Lard, Cal., lb	—	@18	
Eastern	20	@25	
Flour, ex. fam, bl	6 25	@6 50	
Corn Meal, lb	2½	@ 3	
Sugar, wh. crsh'd	12½	@13¼	
do lt. brown, lb	8	@ 9½	
Coffee, grsn, lb	23	@ 35	
Tea, fine blk, 50, 65, 75		@1 00	
Tea finest Jap, 55, 75, 90		@1 00	
Candles, Admant'e	15	@ 25	
Soap, Cal., lb	7	@ 10	
Rice, lb	8	@ 12½	
Yeast Powderdz. 1	5	@2 00	
Bowen Bro. large can per doz		2 50	@— —
Small, do		2 50	@— —
Bowen's Cream Tartar lb		—	@ 75
Cal'd Oysters, dz	2 00	@3 50	
Syrup, S F. Gol'n	75	@1 00	
Dried Apples	10	@ 12	
Dr'd Gsr. Prunes	12½	@ 14	
Dr'd Figs, Cal	9	@ 10	
Dr'd Peaches	11	@ 15	
Oils, Kerosene	30	@ 40¾	
Wines, Old Port	3 50	@5 00	
do Fr. Claret	1 00	@2 50	
do Cal. ds. bot	3 00	@3 50	
Whisky, O.K, gal	3 50	@5 00	
Brandy	4

Lands and Homes for Sale.

IMPROVED FARMS FOR SALE

In CAPAY VALLEY, YOLO CO.,

WITHIN ONE MILE OF THE TOWN OF CAPAY, THE PROPOSED TERMINUS OF THE VACA VALLEY RAILROAD, 16 MILES WEST OF WOODLAND.

One Farm, containing 280 acres of choice valley and hill land, good house, barn, granary, etc., and well fenced. Price, $7,000.

One farm adjoining of 100 acres; good house, barn and outbuildings, young orchard—well watered; Cache creek, a never failing clear mountain stream, running through both farms. Price, $3,000.

Also, **Town Lots in Capay**, soon to be the center of trade and railroad depot for the western and northwestern portion of the county, and also for the quicksilver mines of Lake and Napa counties. Price, $50 to $150 per lot.

TERMS:

One-Half Cash. Balance Secured by Mortgage

J. W. ALDRICH, Capay, Yolo Co.

FOR SALE,

In Lots to Suit,

5,000 Acres of the Lake Vineyard Land and Water Association.

These lands are in the great fruit belt of Los Angeles County,—only six miles from the city are peculiarly adapted to semi-tropical fruits, and adjoin the famous Lake Vineyard of Hon. B. D. Wilson. The Southern Pacific railroad runs through the land; convenient to schoolhouse and church; water in abundance, and the water-right is sold with the land. Title perfect. A Map of the tract may be seen at the office of Mayor Beaudry, on Spring street, opposite City Council rooms. References may be made to Hon. B. D. WILSON or J. DE BARTH SHORB, at Lake Vineyard, who will take pleasure in showing the lands. Also, to Mayor BEAUDRY or D. FREEMAN, Los Angeles city.

A RARE CHANCE.

FOR SALE—My Poultry Business, with my Farm of 115 acres; 22 acres of Vineyard and Orchard; House of 10 rooms; Barns; Granaries; 30 Chicken houses.

Receipts between $3,000 and $4,000 a Year,

Fully proved to the purchaser. Farm Implements, Wagon, Horses, Cows, etc., with Poultry (value over $3,000) included. **Price, $12,000**, one-half cash. Or I will sell a Half Interest and continue the business in partnership—the purchaser to reside on the place. Address,

M. EYRE, Napa, Cal.

In view of above I offer a few fine Fowls, Bronze Turkeys, etc. (not included in breeding pens and stock sold with farm), at reduced prices.

Seedsmen.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, OROHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore)

425 Washington St., San Francisco. 22v7-1y

Nurserymen.

200,000

Australian Gum Trees For Sale,

—AT—

STRATTON'S GUM TREE FOREST NURSERY,

HAYWARDS, ALAMEDA CO., CAL.

These trees are from five to twelve inches high, transplanted regularly into boxes 30x20 inches square, weighing 150 pounds, 150 or 500 in each box, in splendid condition for transplanting to their permanent location. **Price, $6 to $12 per 1,000.** Will contract to plant the trees, or furnish superintendence, on low terms. Cash must accompany orders for less than $50, or if greater than that amount, city reference must be given. Address,

JAS. T. STRATTON,

East Oakland, Alameda County, Cal.



SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

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The GORHAM SEEDER AND CULTIVATOR COMBINED



No Other Machine Presents such an Array of Useful Devices, and, taken together, they Constitute the Gorham Seeder a Machine Distinct and Separate from all others of its Class.

We Ask all Those in Want of a Seeder to Call upon us and Give our Machine a Thorough Examination, or Write Directly to Us.

We can produce single testimonials that would fill this page, claiming for it a reputation as broad as its use is extensive. Among the hundreds who have used them we refer to as many as space will admit, in different parts of the State, who are using from 1 to 16 machines each:

Dr. Glenn, of Jacinto; R. S. Cary, Sacramento; Charley Coyle, Woodland; G. W. Scott, Yolo Co.; Bullard & Co., Chico; John Simpson, Tehama; E. Hunter, Princeton; John Boggs, Colusa; Murdock & Jones, Colusa; Overhiser, of Grangers' Union, Stockton; A. L. Layre, Fresno Co.; I. Friedlander, San Francisco; John Mitchell, Modesto; Grangers' Union, San Jose.

THE SIX-FOOT MACHINE, with two horses, will seed 12 acres per day easily. THE EIGHT-FOOT MACHINE will seed 16 acres per day; THE TEN-FOOT MACHINE, with four horses, will seed twenty-five acres per day; THE TWELVE-FOOT MACHINE will seed 34 acres per day; THE FOURTEEN-FOOT MACHINE, with six horses, will seed 40 acres per day. ☞ Extras of all parts always found with us.

Our Assortment of Harrows is the Most Complete to be found in the State.

Iron Harrows; Hard Wood Harrows, with adjustable hinges; Teeth of the Best Toe-Cork Steel; seven and nine Chisel Tooth Cultivators, with Reversible Teeth.

COLLINS' CAST CAST STEEL PLOWS.

The people of the coast need no longer be humbugged by Imitation Cast Cast Steel Plows. We will keep the Genuine Collins' Steel Plows, made expressly to suit the wants of this trade; also, a full line of Extras for the above goods, which we guarantee to fit.

Feed Cutters, Wine and Cider Mills, Barbed Wire for Fencing, Wagons, Spring Wagons, Halliday Windmills, Etc.

KELLER & CO., 43, 45 and 47 J Street, Sacramento, Cal.

The Famous "Enterprise"

(PERKINS' PATENT)

Self-Regulating, Farm Pumping, Railroad and Power



WINDMILLS,

Pumps & Fixtures,

Have been in use on the Pacific Coast in the towns and farming districts for over four years, and wherever they have been sold (and there are thousands of them out) they are doing their work as well as when put up. A careful perusal of our Circulars gives a fair representation of them and shows their simplicity.

We are prepared to fill orders for all sizes, from a PUMPING MILL to a 24-foot POWER MILL for running Machinery, as well as doing the pumping.

The "ENTERPRISE" FEED MILL

(PACKERS' PATENT),

For Grinding Barley, Etc.,



Equally as commendable, has now been tested to entire satisfaction of all, and meets the demand for an article of that kind that has not been supplied on the Pacific Coast heretofore.

CHEAP and RELIABLE.

All Goods Warranted.

Send for Illustrated Circulars and Information to

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Managers for California and Pacific Coast,

General Office and Supplies,

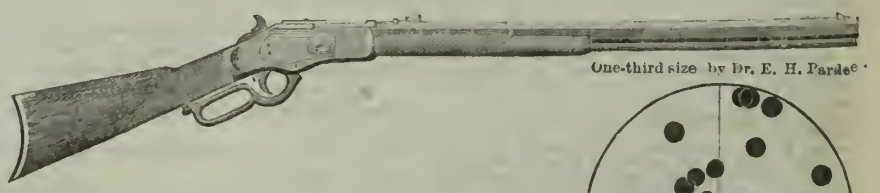
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MODEL 1873.



One-third size by Dr. E. H. Pardee.



String measuring from center of target to center of each shot, 32¾ inches. Average distance of each shot, 1 9-100 inches.

The Strength of all Its Parts,

The Simplicity of Its Construction,

The Rapidity of Its Fire,

The Power and Accuracy of Its Discharge,

The Impossibility of Accident in Loading,

Commends it to the attention of all who use a Rifle, either for Hunting, Defense, or Target Shooting.

The San Francisco Agency is now fully supplied with all the various kinds and styles of Arms manufactured by the Winchester Repeating Arms Company, to wit:

Round barrels, plain and set, 24 inch—blued. Octagon barrel, plain, 24 inch—blued. Octagon barrel, set, 24, 26, 28, 30 inch—blued. Octagon barrel, set extra heavy, 24, 26, 28, 30 inch—blued. Octagon barrel, set 24, 26, 28, 30—extra finished case hardened and check stocks. Octagon barrel, set extra heavy, 24, 26, 28, 30 inch—extra finished—C. H. & C. S. Octagon barrel, set, 24, 26, 28, 30 inch. Beautifully finished. C. H. and C. S. Known as "One of One Thousand." Octagon barrel, set, gold, silver and nickel plated and engraved. Carbines blued, also gold, silver and nickel plated. Military rifle muskets, model 1873. Rifles, muskets and carbines, model 1866. **Reloading Tools, Primers and Parts of Arms.**

A heavy stock of Cartridges Manufactured by the W. R. A. Co., for all kinds of Rifles and Pistols, constantly on hand and warranted the best in the market.

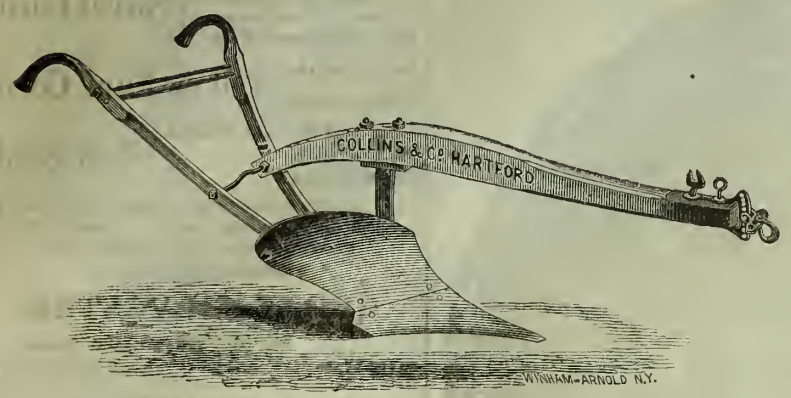
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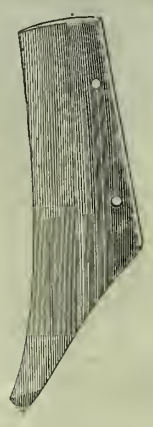
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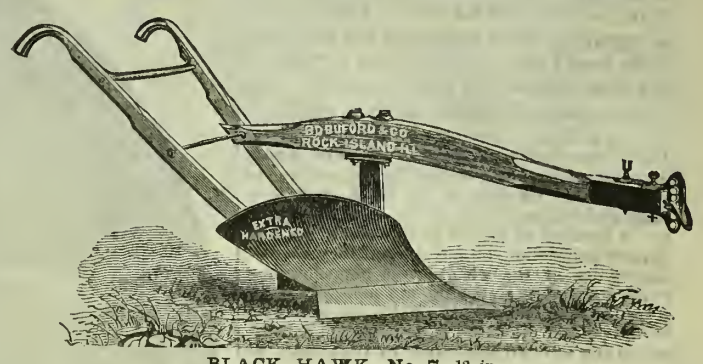


COLLINS' CAST CAST STEEL—12 in.

We Warrant these Plows to Scour in any Soil.



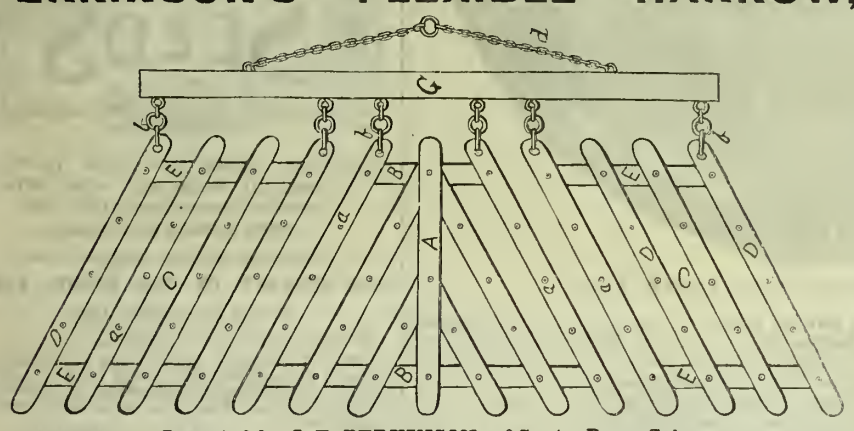
Several Thousand in use on the Coast, all Giving best of Satisfaction.



BLACK HAWK, No. 7—12 in.

Sole Agents for the BLACK HAWK SINGLE PLOWS and BUFORD'S GANG AND SULKY PLOWS, LA BELLE FARM, FREIGHT AND SPRING WAGONS and McSHERRY'S GRAIN DRILL. Full stock of FARMING TOOLS. Dealers and Farmers supplied with the best line of goods in the market, and at the lowest rates.

PERKINSON'S FLEXIBLE HARROW,



Invented by J. E. PERKINSON, of Santa Rosa, Cal.

Merits are claimed for this Harrow over all others in use. It gives good satisfaction in its work, and should be thoroughly tested by farmers. It has the build of durability. It can be made for $35 on this Coast.

This Harrow is made in three sections, which are connected to a draft bar by links and clevises. The bars are about four feet six inches long, and there are four bars in each of the two outside sections. The center section is filled up as seen in the engraving. The Harrow is made of good Eastern oak, with 63 steel teeth, and covers about 13 feet width of swath.

Reasons for the Superiority of this Harrow.

First—By the lightness of the draft, two horses, of ten hundred each, can draw it on loamy soil with ease.
Second—It is the best attachment in use. The draft bar is perfect. By using an equalizing chain to draw by, it keeps the Harrow in its right position and makes it easy to turn at a corner, as no wide spread Harrow can be turned with ease without those equalizers.
Third—Where other patentees have failed in setting the teeth so that each and every tooth will make a separate and distinct mark, this Harrow will do it on trial.

The Harrow is manufactured by the inventor, **J. E. PERKINSON**, at Santa Rosa, Cal., to whom applications for rights can be made.

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We do a strictly Commission Business, and place our rates of Commission upon a fair legitimate basis that will enable the country at large to transact business through us to their entire satisfaction.

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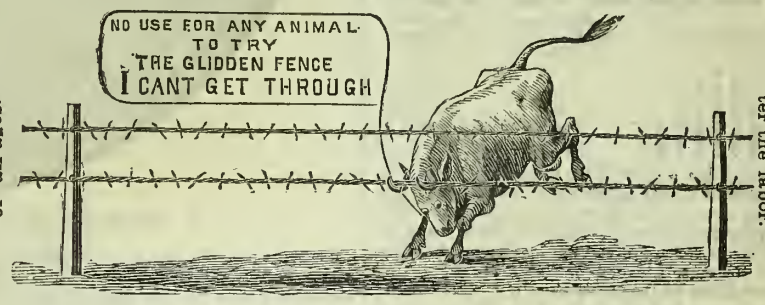
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Our business being exclusively Commission, we have no interests that will conflict with those of the producer

After Nearly Three Years' Test, the STEEL BARBED FENCE WIRE, Patented by J. F. GLIDDEN, Stands Head and Shoulders Above all Competitors, and is More in Demand than all Other Barb Fences Put Together.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



About one-half the cost of any other good fence; and can be put up for one-quarter the labor.

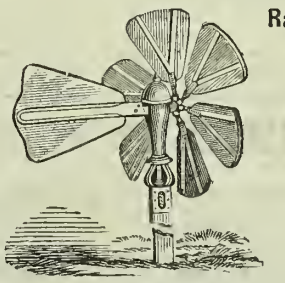
OVER 300,000 POUNDS SOLD IN CALIFORNIA THE FIRST SEASON OF ITS INTRODUCTION. THE GLIDDEN PATENT BARB WIRE HAS BEEN TESTED BY THOUSANDS OF PRACTICAL FARMERS, WHO UNIVERSALLY RECOMMEND IT, AND IS SUPERIOR TO ALL OTHERS FOR THE FOLLOWING REASONS:

I. The wire is manufactured entirely from steel, which has a relative strength of 50 per cent. greater than of any common iron wire. 2. The only steel wire barb. 3. The only barb that cannot be displaced with thumb and finger or cattle's horns. 4. The only barb with prongs projecting from between the twisted wire and cannot be bent, broken or rubbed off, and never needs replacing. 5. The only coiled barb with broad base on main wire, which renders it immovable. 6. The only barb wire during process of manufacture its strength is tested equal to that of two-horse power. 7. The only barb put on with machinery. It is not pounded on with hammer and indented in main wire to hold it in place. 8. The only barb wire you can lay 80 rods or more on ground and drag with team and not injure or displace the barbs. 9. The only barb wire that gives universal satisfaction and has greater sale than all others put together.

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Pacific Coast General Agents, Sacramento, Cal.

Manufactured by WASHBURN & MOEN MANUF'G CO.

AUTOMATIC PUMP.



Raises water by compressed air to any hight or distance. Windmill can be set at any distance from the well or spring if required to get a good exposure to the wind.

SEND FOR CIRCULAR.

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WHERE THE PUMP CAN BE SEEN IN OPERATION.

"PERIOD" WINDOW SCREENS,



For Exclusion of Flies, Mosquitos, Etc.,

For New Buildings.

The stiles of the upper sash are continued to form a panel, in which is placed a wire netting, so that when the upper sash is lowered the screen follows the sash and fills the space. The lower screen operates in a similar manner, but is made half the thickness of sash, and is detachable. Both screens can be made thin and detachable if so desired. In most cases the top screen is sufficient. Both of the screens are protected from the weather, and are entirely out of sight when not in use. For particulars, apply to

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Elastic Truss.

Reader, are you afflicted with the scourge of humanity called "Hernia?" Well then; as much as you value health and comfort, give our Elastic Truss a fair trial, and our work for it, you will never again wish to wear anything different. For simplicity of construction, durability, ease, convenience, efficacy and quickness of cure, it stands unrivaled. MAGNETIC ELASTIC TRUSS CO., 609 Sacramento Street., S. F.

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$1.50 & $2 per day. Free Coach to the House.

H. C. PATRIDGE, - - - Proprietor

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HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,
Stockton, Cal.



CALVERT'S CARBOLIC

SHEEP WASH,

$2 Per Gallon.

After dipping the Sheep, is useful for Preserving Wet Hides, Destroying the Vine Pest, and for Disinfecting Purposes, Etc.

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ASK YOUR GROCER OR OIL DEALER FOR
"ELAINE"
THE FAMILY SAFE GUARD OIL

SEWING MACHINES.—We have a first-class machine we wish to dispose of on favorable terms. Apply at this office.

A State Fair Exhibit.

There was a prominent exhibit at the late State fair which was not noticed in our reports and did not figure in the premium list. To assure the society and the owners of this wonderful piece of industry that we are not unmindful of its prominence at the fair, we have prepared an engraving, which appears on this page, that all its beauty may be seen. It is a "wheel," and those who profit by it may claim the circle as the emblem of eternity, should always have a place at the exhibitions of our State society. Let us see whether it deserves it. The owner of the circle pays the society for the privilege of showing it. He sets it up in a prominent place and invites people to try their luck with it. A number of foolish people come up and deposit half dollars on any animal they choose. The owner of the wheel gives his machine a twist and it goes clattering around. When it stops the man who bet on the animal indicated by the pointer takes the money, except a dollar which the self-denying owner of the apparatus takes out for his time and the wear and tear of the wheel. Then the wheel is ready for another twist.

How simple and beautiful this is! In less time than five minutes half a dozen persons have lost their coin; one person has gained a part of it without giving any equivalent, and the State society and the owner of the wheel have taken the balance for the hard work they have done to make the transfer. How grand the result appears when expressed in figures:

Dupes Lose	Middlemen (State Society) Make	Gamblers Clean Up
$		$
$ $ $		$ $
$ $ $ $ $	$	$ $ $ $
$ $ $ $ $ $ $	$ $ $	$ $ $ $ $
$ $ $ $ $ $ $ $ $	$ $ $ $	$ $ $ $ $ $

Is not this a splendid arrangement for the development of our agricultural resources? Our young men and weak neighbors go to the fair; they have not money enough to get a hand in the big gambling of the pool selling and so they have the tiny thievery of the "wheel" set up before them so that they need not miss losing their money and character because of lack of funds. Is it not humane of the society to make roguery and loss of money, and chagrin, and penury often, so cheap that even a boy need not fail of learning and feeling them? What better agency could be devised to spread the thirst for risk among our young men? How could they be better taught the beauty of getting something for nothing and dividing the spoils with the society and its agent, the swinger of the circle? We are sorry that our notice of this exhibit has been delayed. Next year, unless we hear that it is done away by the managers, we shall atone for our neglect by printing the wheel beforehand.

What is Said of the Wheel.

Some of the papers profess not to like the "wheel" and the other noble games with which the society permits rognes to swindle the people. Here is the opinion of the *Chronicle:*

"Gambling has abounded during the week in every nook and corner of the fair grounds. The most barefaced swindling games have been conducted under the very nose of the police, and the raid made on the wheels at the park on Monday turns out to have been only a ruse. Some even hint at crookedness and are free to say that this was only one way to make the gamblers 'see' the officers. Had such been the case, the police would not have acted differently from what they have. Instead of one wheel, as on Monday, two others were added, and the unsophisticated rural youths, as well as boys under age from the city, were promiscuously robbed. If the question is asked, 'Why does not the society forbid this?' it is easily answered, for in these games they find a profitable source of revenue. The society itself does not let these gambling privileges, but their agent and lessee, at present A. A. Wood, county clerk, does. It has been asserted that he owned the games himself and hired others to run them for him. Each one of these wheels probably took in not less than $1,000 this year. There is no capital invested, no risk to run. These three wheels probably cleared more money than the whole of the saloons on the ground, which sold poor whisky for 25 cents a glass, citric acid and water for two-bit lemonades, and five-cent cigars for five times their value. But these

Abuses Have Been Fostered

By the society. The lessee pays $6,000 for the use of the park without the pool privileges, and the society, in charging this enormous sum, knows that he must resort to these devices to get his money back. When these robbing games were broken up on Monday it was hoped by all lovers of order and law that the police had determined to do their duty. But they were sadly mistaken. The police of Sacramento dare not follow the gamblers up. They received their charters from the society, paying a price based on the revenue to be received from these games, and the society, whether it did or not, was in honor bound to defend its tenant in his rights. The games could be excluded from the park at the yearly fairs without the intervention of the police at all. The society must sanction the games, or they could not even start. But not only was

Gambling Rampant

There, but nightly in two at least of the leading hotels of the city faro banks were running in



A PROMINENT EXHIBIT AT THE STATE FAIR.

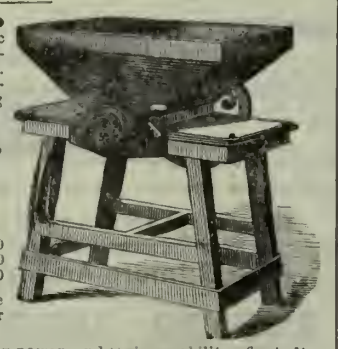
open sight of the street. On Saturday night, commencing early in the evening, there were two faro games in the billiard rooms of the Orleans hotel, which the officers must have known of—did know of, for one or two of them even peeped in once or twice. The individual officers are less responsible than the head of the department, who could not go to and from his office without seeing these games in full blast. Besides the faro games there were dice games, chuck-a-luck games, and various other devices for robbing people. There is not much pity to be bestowed on the full-grown man who is fool enough to put down his money on a thieving game, but the principal customer of many of these hell-holes are boys all the way from 10 to 18 years of age.

The Pool Box.

"Last but not least in the catalogue of frauds is the present system of pool selling. Not that the men who have that privilege annually are particularly dishonest. In fact, in one sense it might not be called dishonest, for the betting man knows when he puts his money in the pool box that three per cent. of it will be taken out for commission, four-fifths of which goes into the pocket of the society. The managers of the society again are directly responsible for this abuse, by charging such an enormous price for the privilege of pool selling. Killip & Co. paid this year $5,500 for the privilege. They must pass through the pool box $165,000 before they get the privilege money back, and in order to make anything worth speaking of, after deducting for this enormous expense, must handle $200,000. The man who attempts to hedge out, at $100 to $10, knows that $3.10 of the $10 he wins will go to the pool-box. But so long as the pool sellers are compelled to pay this enormous figure, so long will the percentage, long since abolished in the Eastern turf circles on all except the winnings, be continued. This system of extortion, which has been done away with, to the credit of Sacramento be it said, by hotel keepers, hackmen and business men generally, on whom visitors are dependent, is still fostered and kept alive by the society, and is a black spot of shame on the fame of our fair State which must be wiped out. The people are getting to be interested in this matter. They are about tired of seeing these shameful occurrences re-enacted every year, and the complaints are loud and numerous."

CHALLENGE FEED MILL.

WE HAVE PURCHASED THE SOLE RIGHT TO manufacture these celebrated Feed Mills for the Pacific Coast. They are the only mill yet invented that gives perfect satisfaction. They will grind all kinds of grain into feed—barley, corn, oats, etc., however green, wet, or dry, or whatever may be its condition—with ease and speed, without heating the feed or doing other damage. Will also grind salt and soft rock.



The fastest grinding, the easiest running, the simplest, the cheapest Portable Mill manufactured.

PRICES:

No. 1—to run with belt	$ 75 00
No. 1—Single Gear	90 00
"Warehouse"—to run with belt	100 00

These mills are FEED-grinding chiefly, and yet with a sieve which is easily attached, much of the flour and meal necessary for family use can be made with any of them.

Their compactness and portability, their adaptibility to any power, and their capability of grinding any kind of grain readily, make them almost indispensable to farmers, millers, warehousemen, distillers, lumbermen, and all who grind feed.

There are more than five hundred of these Mills in use in this State, and all who have them say they have no equal for fast grinding and superior quality of their work.

Marcus C. Hawley & Co. { 108 and 110 FRONT, and 12 and 14 Pine Sts., SAN FRANCISCO. / Corner J and Second Sts., SACRAMENTO.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

J. L. THARP—San Francisco.
B. W. CROWELL—California.
G. W. MCGREW—Santa Clara county.
A. C. KNOX—Nevada and Montana Territory.
C. N. WEST—Santa Cruz county.
A. C. CHAMPION—Tulare, Fresno and Kern counties.
RICHARD RULE—Nevada
B. GOODWIN—California, Oregon, Washington and Idaho Territory.
A. U. STRONG—Lake and Napa counties.
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GIVE YOUR FULL ADDRESS when you communicate on business to this office, especially in returning newspapers. The fact that your name is on our subscription list is of no assistance to us. Without sending your post office address we should have to look over thousands of names to find yours.

DAVIS & SUTTON,

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Commission Merchants in California Produce.

REFERENCE.—Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A. Lusk & Co., San Francisco, Cal.

WANTED,

A man who has had experience in fruit culture and gardening, to work on a farm in the southern part of the State. Address, giving references as to ability, etc.,

Box 103, San Diego, Cal.

THE PACIFIC RURAL PRESS—a paper chock-full of practical good sense and good things—urges that a day for tree-planting be set apart by every Grange in the State, and suggests the Patron's anniversary day, December 4th, as a suitable one to inaugurate this good work all over California.—Santa Barbara Press, Mar. 25.

Seeds. Seeds.

IMPORTED.

Crosby's Extra Early, Marblehead Mammoth, Stowell's Evergreen, Mexican Sweet, New — Sweet Corn.

Early Canada, Early Dutton — Yellow Flint Corn.

Long Red Mangel Wurzel, Yellow Globe, White Sugar — Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

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*,*My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

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RUPTURE CURED.

We would advise all those of our readers suffering of Rupture to carefully perase the card of the MAGNETIC ELASTIC TRUSS COMPANY, in another column of this paper. As to the admirable effect of these Trusses, which have proven themselves the only efficient ones, we print the annexed testimonial, which speaks for itself.

SAN FRANCISCO, September 25th, 1876.

I would state that I have been ruptured for nearly three years, and have worn various kinds of Iron and Steel Trusses, without any benefit. I saw an advertisement of the MAGNETIC ELASTIC TRUSS CO.; called on them on the 28th day of July, six weeks ago, and now, on the 25th day of September, 1876, after wearing the MAGNETIC ELASTIC TRUSS only six weeks, I am astonished and delighted to find myself perfectly well. If any person should have told me two months ago that I could be cured, I would have laughed at them. D. ALEXANDER, 809 Jackson St., S. F.

CAUTION.

To Farmers and all others who put Barbs upon Wire Fences, Making a Barbed Wire Fence, and to all Manufacturers and Dealers in Fence Barbs and Barbed Fence Wire.

You are hereby notified, that in putting barbs upon wire, making a barbed wire fence, or in using or dealing in barbs or barbed fence wire, not made under license from us, you are infringing upon our patents, and we shall hold you strictly accountable for damages for all infringements of Letters Patent, Nos. 66,182, 67,117, 74,379, 84,062, 153,965, 157,124, 157,508, 164,181, 173,667; re-issues, Nos. 7,136, 6,976, 6,902, 7,035, 7,036, 6,913, 6,914, and other patents. Copies of our claims can be obtained of our attorneys, Coburn and Thacher, Chicago, Ill.

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ALBERT E. BURBANK, importer and breeder of Fancy Fowls, Pigeons, Rabbits, Dogs, etc. Also, Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

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ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco.

PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, OCTOBER 14, 1876. [Number 16.

Activity in Tule Lands.

There is just now discernible much activity in attempts to develop the vast resources of our State in the tule lands. Constant proofs are recurring of the adaptability of these soils to varied production. Success has been attained in the garden and the orchard and the dairy on flats wrested from the waters. The history of the efforts in the tules, when it shall be written, will show that the progress in this branch of our growth has been characterized by the tendency to haste and slight which is ever present in novel experiments. There have been vast sums of money lost by men who thought they saw a honanza in the tules and yet did not exercise sufficient precaution to close their hands tightly upon the treasures they grasped. Work has been swept away and investment sacrificed because the water was strong enough to crush and overflow the barriers which were placed against it. There is now a movement to give a more permanent character to the levees, and in this movement lies the chances of success, large and permanent. Of the productiveness of these lands, when thoroughly reclaimed, there is no room for doubt. The markets show the results in forms which all can measure. The onions of Mr. Bigelow, of Sherman island, which we mentioned last spring, were eloquent of success, and we learn that $500 was cleared from three acres of tule land onions, which came into this market when the price was at its highest figure. Of tule land orchards, a good showing was made at the fair in Stockton. The correspondent of the *Bulletin* says: "Mr. Crozier, who owns 150 acres on Rough and Ready island, which he reclaimed 16 years ago, is stated to have realized $12,000 in one year from his fruit crop. The character of the fruit Mr. Crozier is producing can be seen at the pavilion in Stockton. It is certainly one of the best collections of apples and pears ever seen in California."

Of course these high water marks of success in the cultivation of tule lands are governed by the rules which govern success in any productive enterprise. They are gained by thorough and skillful work and are the rewards for investment both of capital and effort. We do not mention them as things which can be gained by any careless, hap-hazard style of planning or execution. Like all agricultural rewards, they must be labored for faithfully, wisely and well.

The direction in which progress is now promising in the tules is in the way of stronger levees. For this purpose men who have faith in the lands have built more powerful dredges and excavators. They propose to lay the foundations broad and firm, and make the banks fit to withstand any rise of water which has yet been experienced. We have described the machinery which is being employed by Mr. Whitney and General Williams on Roberts' and Union islands. The work which they are now prosecuting with nearly 2,000 men will soon be in a position to declare its quality. A favorable verdict will be the warranty for still greater additions to the productive area of our State, which may truly be said to be growing—as well in acres as in men and money.

Fine Grapes from Lone Hill Vineyard.—We acknowledge with thanks the receipt of a fine box of grapes from D. M. Harwood, proprietor of Lone Hill vineyard, in Santa Clara county. The box was filled with assorted grapes, and showed the fine stock of the vineyard splendidly. We can readily see why our correspondent, G. W. M., found much good to note in his description of this vineyard which we printed in a recent issue. The property is justly the pride of its possessor.

"Sonoma."—We notice by the Santa Clara Valley fair premium list that "Sonoma," Short Horn bull of the Cotate ranch herd, whose fine proportions we recently showed in an illustration, took the first premium in his class. Sonoma is a splendid animal and worthy of his honors. He triumphed in a notable contest, for Mr. Jones' Mason Duke is an honorable animal and one which it is an honor to be measured with.

Tulare Lake.—There come inklings of what the West Side irrigation surveyors conclude concerning Tulare lake. A correspondent of the *Bulletin* encountered J. R. McDonald, president of the commission, at Stockton, and took advantage of the opportunity to ascertain some facts concerning the survey now being made between Tulare and Antioch in accordance with the provisions of the supplemental act of last session. The survey was commenced on the first of the present month, under the direction of W. M. Hall, former engineer to the Golden Gate park. Mr. McDonald states that the investigations made in and around Tulare lake demonstrate the fact that an abundance of water can be obtained from that source. There is a rim of rising ground around the lake, which prevents the water from discharging itself into the whole San Joaquin valley. This can be easily cut through and led into a canal, meeting tide water at Antioch. Mr. McDonald represents that the area of Tulare lake has been imperfectly understood. He describes it as about 60 miles long by 30 wide, and states that the whole area of the lake is but a few miles less than the West Side irrigation district as defined by the Scrivener bill of last session. There will be no interference with the present source of supply of the Kings river canal, and he thinks that former objections made to the West Side project will cease. The surveys will be finished by the first of December, and the reports ready for presentation to Governor Irwin by the first of March.

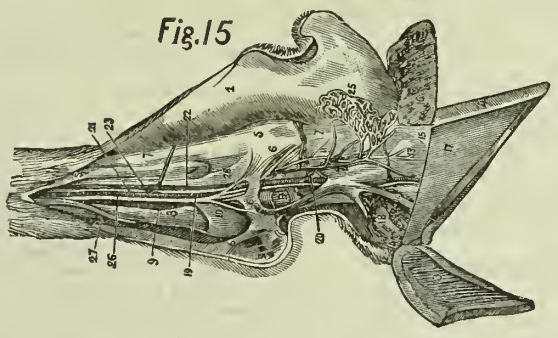
The New York *Herald's* Madrid special says: Spanish politicians claim that the surrender of Tweed to the United States is a complete estoppel to further threats of Cuban intervention.

The British steamer *John Bramell* cleared from New Haven, Saturday, for Constantinople, with a cargo of 15,000,000 cartridges, valued at $375,000, for the Turkish government.

The Horse's Foot and Its Diseases.—No. 5.

Our illustration, Fig. 15, shows the horse's foot as the dissecting knife has laid it open to exhibit the location of arteries, veins and muscles. The view is as described by Owen and generally recognized as authority on the subject. No. 1 is the general integument or covering of hair and hide as turned back from the incision of the knife. No. 2 is a fatty mass, located just behind the pastern joint and forming a sort of cushion for it. No. 3 is the outer or horny wall of the hoof turned back. Upon the top of the part which is turned down may be seen the laminated processes which we have described in former articles. These laminæ, it will be remembered, are thin plates by which the horn hoof is attached to the sensitive parts within, thus giving greater strength and elasticity than if the connection between the born and the underlying parts were fixed and unyielding. No. 4 is a cross section of the hoof and shows the relative thickness of it as compared with the other parts of the foot. No. 5 marks the place where the cannon and pastern bones are articulated. Nos. 6, 6, 6 are what is called the aponeurotic tissues. They are white, shining tissues serving to connect the tendon with the bones which they move. Nos. 7, 7 are the extensor tendon of the foot. This, it will be remembered, is the muscle by which the foot is thrown forward. Nos. 8, 9 and 10 are the flexor tendons of the foot, which serve to flex or bend the foot upon the leg. By studying these extensors and flexors, as shown in the engraving, a good idea may be obtained of the relative position and action of the motive powers which enable the horse's foot to achieve its wonders of strength or speed. Nos. 11, 12, 13, 14, 15, all of which may be found close to the hoof, mark the expansion of the great cartilage of the foot. No. 16 is the part of the coronary band, which crowns the hoof, as raised by the dissecting knife to show the parts below. No. 17 is the sensitive hoof which envelopes the coffin bone. No. 18 is the elastic cushion of the heel.

Fig. 15



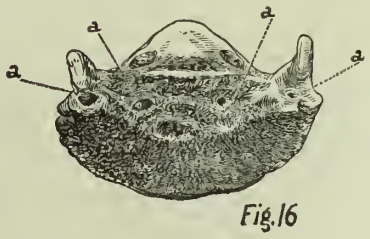


Fig. 16

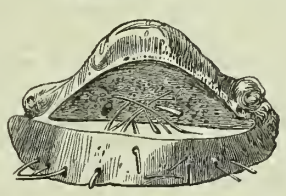


Fig. 17.

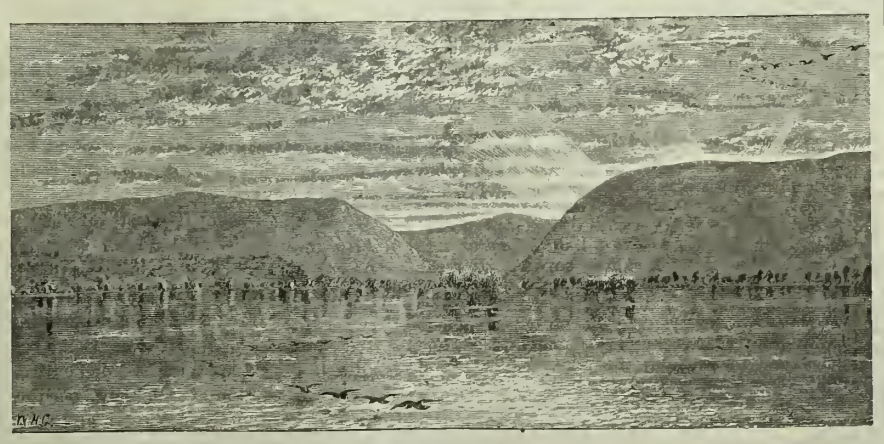
ANATOMY OF THE HORSE'S FOOT—NO. 5.

We come now to the matter of the arteries and veins which maintain the circulation of blood and thus minister strength to these important parts of the animal. The arteries which bring the fresh blood from the heart are divided as they pass down the cannon bone, and, as they reach the foot are called the plantar arteries. Nos. 19, 20 and 21 show these arteries. They pass to the lower part of the cannon bone, pass the fetlock joint by the side of the sesamoid bones and pass into what is called the fatty frog. From this place they pass around the ends of the coffin bone and enter the bone by means of the perforations which are shown at *a*, *a*, *a* in No. 16. The plantar arteries branch out frequently, and it is the testimony of the anatomists that no part of the horse's body is more plentifully supplied with blood than the foot. No. 17 shows what are called the terminal twigs of the arteries, clustering in the interior of the coffin bone.

The veins, in their office to carry back the vitiated blood to the heart, have naturally much work to do to return what the arteries so liberally furnish. The foot is furnished with a perfect network of veins. The veins of the frog, the sole, the laminæ and the many veins of the coronary band unite just above the hoof and form what is called the coronary or plantar plexuses (Fig. 15, No. 25), or network. This network is gathered into the plantar veins (Fig. 15, Nos. 22 and 23), which pursue their upward course at the side and a little to the front of the plantar arteries which we have described. Thus is the circle of the blood maintained. We ask especial study to the location of these blood vessels because the knowledge may be of much practical value in some contingencies which may arise.

One more part of this dissection remains. It is the nerves. They accompany the blood vessels and take their name from them. Thus the plantar nerves (Fig. 15, Nos. 26, 27, 28,) lie beside and behind the corresponding artery. As these nerves descend to the foot they branch out into the same parts that the veins and arteries visit; they pass through the perforations of the coffin bone as shown at *a*, *a* in Fig. 16. They pass through the many canals of the interior of the coffin bone, and finally terminate in the sensitive parts of the foot, together with the terminal twigs of the arteries, as shown in Fig. 17.

With this engraving is ended our description of the anatomy of the horse's foot as it exists in a healthy state. At another time we expect to make note of the chief diseases to which the foot is liable and the effects produced by them upon the afflicted parts.



EARLY MORNING ON THE SUSQUEHANNA RIVER.

The Susquehanna.

We give on this page another choice little piece of scenery which may be found on the line of the Pennsylvania railroad. It is a view of the Susquehanna in the early morning. The Susquehanna is one of the historic rivers of the country. Along its banks and across its waters were enacted some of the stirring scenes of the Revolution. The river has likewise become immortal in the charming tales of Cooper. The scenes along the river are full of beauty. Throughout its whole length, from its rising in New York through its course across the State of Pennsylvania, its beauty is singular and changing, and always commands the fullest admiration of the tourist.

Stock Sales.—We have received from Crego & Bowley two catalogues of stock sales which they will hold during the present month. On October 17th will be sold, at Lakeville, Sonoma county, 100 head of brood mares and trotting stock, also 75 head of thoroughbred Devon cattle, the property of the late Seneca Daniels. On Tuesday, October 31st, will be sold by Henry W. Seale, at his form at Mayfield, Santa Clara county, 54 head of trotting stock, the get of the celebrated horse "Elmo" and other well known sires. The sale will also include 50 head of high grade Durham cattle. We know Mr. Seale's live stock and can say that it deserves the careful consideration of purchasers.

CORRESPONDENCE.

Off for a Camp.

EDITORS PRESS:—The people in Southern California seem to have a mania for camping. Doubtless the pleasant nights here have a tendency to lure them from home and "maketh them to lie down in green pastures, beside the still waters," to say nothing of the snakes, lizards, etc. But notwithstanding all petty discomforts of camp life, it is for a time thoroughly enjoyable. We would advise all who think more of health than fashion, and more of good, wholesome food than medicine, to go out on a camping excursion, and our word for it, you will return physically, mentally, morally and financially in advance of your fashionable friends who went to Long Branch or Saratoga and lived a round of fashionable dissipation.

We decided to try the experiment, and having a camping outfit we set forth. Near sunset, on our first day out, we entered the windy seaport town of San Buenaventura, Ventura county. The sea was lashing the headlands about it, and the rocks which line the beach were white with tumbling foam. The casual observer will discover nothing of more interest here than the large, well-filled mercantile houses, which have an air about them not unlike San Francisco's wholesale houses. At the foot of Main street stands the old adobe mission, so old the little brown swallows have been trying to modernize the exterior by putting a cornice of mud nests around it. We were curious to see the interior of this relic of early days, but imagining the odor savored of rat's-nests and decay we hurried past, and turning north drove out through a beautiful avenue bordered on either side with ornamental trees, handsome dwellings and well kept gardens. This lovely little glen, only a mile in width, extends back from the coast for six miles, protected on the west by the coast range of hills, which are here thickly studded with trees; on the east stretches a gray, barren range, separating this from the Santa Clara valley.

These ranges gradually slope nearer each other toward the north until they are met by an intervening range, which abruptly terminates the valley, leaving on the west only a small gap through which Ventura river flows, and on the east a similar one through which gushes a lovely tributary of the river. Beautiful tall sycamores, with wild grapevines clinging to their topmost boughs, border this lovely stream, thus forming a pleasing adjunct to the surrounding country, as well as a delightful camping spot, where we decided at once to pitch our tent. By sunrise next morning we were on the road, which passes through the eastern gap and opens out into a deep little glen of about six acres; this is owned by a rich old Spaniard, who also owns hundreds of acres in the surrounding hills, where roam large flocks of sheep. The old fellow looked quite contented, as he stood in the door of his large adobe house listening to the strains of a piano within and humming an American air, although he could not speak a word of English. A few rods farther on you begin the ascent of a winding grade. Reaching the top you find spead out before you a large tract of mesa land, dotted with scrubby oaks, and shimmering in the distance an everlasting chain of blue-tinted mountains. The soil here is poor, and its dry, parched appearance is relieved only by a small lake filled with tall green grass. We hurried on over this uninteresting portion of road and soon reached Ventura river at the mouth of Matilija canyon, which slopes on either hand to so narrow a bottom, that the river in winter has just room to thread its way through. The scenery here is perfectly grand and grows more and more interesting as you follow up the canyon. You want an open carriage so you can gaze up at the abrupt cliffs, towering hundreds of feet above you, until your neck feels like breaking; no lover of Nature fails to do this. Every few hundred yards the road crosses the river, on whose banks grow tall slender trees and ferns eight feet high. The road winds continually, turning and meandering the entire distance, thus constantly shifting the scenes. Now you turn a sharp angle and imagine yourself within the walls of an old castle with the roof crumbled off, so straight are the towering columns of stone which surround you; anon you come upon a grove of tall slender cottonwood, and where springs ooze perpetually from walls vine-clad and plumed with ferns. Near one of the fords is a picturesque hanging rock, the haunt of photographers, although there are better subjects for views in the canyon. There is a strange stillness here, broken only by the murmur of the river and the twitter of birds; you begin to have doubts about ever reaching civilization again, when the road suddenly turns into a little opening where a family has settled and are cultivating a beautiful peach orchard and strawberry garden. A mile further on you cross the river the thirteenth time and halt in front of the hotel at Matilija springs. We have explored the premises and find "things are not what they seem"—in an advertisement. The only spring near the hotel is strongly impregnated with sulphur and is 150 degrees Fah. This runs into the bath-house of three rooms, where you can bathe for 50 cents and come forth too weak to walk without aid. Nearly a mile from the house is an iron spring, which tastes more like a duck pond than iron. There are no visitors here and the only thing which enlivens the scene is a herd of goats, some of them Angoras. The little kids cry like babies as they climb after their mothers on the steep mountain's side. When they start the wrong direction the old shepherd blows a police whistle, and they all turn like drilled soldiers and go in a different course. Eight miles further up the canyon is the head of Ventura river; it can be reached only on horseback, and we lose all interest in it as we listen to the stories about the California lions and bears which inhabit that portion. It is 18 miles from here to San Buenaventura; eight to Nordhoff, in the Ojai valley, and five to the mouth of the canyon. L.

Matilija Springs, Sept. 14th, 1876.

In the Mountains.

(Written for the PRESS.)

After providing ourselves with the necessaries for a long drive, we left our stopping place upon the South Yuba for a trip to Webber lake and other places of interest. For the first twelve miles we travelled over the graded toll road mentioned in a former letter, which is for the most part exceedingly well built and is kept in good order. This part of the road leads us over the mountains between the valley of the South Yuba and that of Canyon creek, upon which latter the dam of the North Bloomfield gravel mining company is situated. This dam—(known as Bowman's dam, from the original owner of the ranch which now forms the lake)—is very strongly built across a narrow pass through which the creek runs, and the lake formed by it covers an extent of about 1,000 acres. This dam is now being raised and strengthened, and when finished will give thirty feet more depth of water and a probable area to the lake of about 1,200 or 1,500 acres. A flume leads from this dam along the mountain side, and carries water to the mines of the company. The establishment of the company at this point is a good illustration of mountain hospitality in its best forms. The traveller is always welcome, and nobody ever need pass the station hungry, but it is against their rules ever to receive payment for what one may eat.

Soon after leaving Bowman's dam we strike the

Old Henness Pass Road,

Famous before the advent of the railroad as the great road to Virginia City. Little now remains to show the immense amount of traffic which formerly passed over this road, except the ruined wayside houses which are scattered along at intervals of two or three miles.

The road, although neglected, is in a pretty fair condition for a mountain road, and has many points of interest. Through this pass the late Mr. Judah, formerly engineer of the C. P. R. R., made surveys and reported favorably upon this route for the railroad. It is stated, on good authority, that if the road had been built here the grade from Alta to the summit need not to have exceeded 70 feet to the mile, and from the summit to Truckee it might have been made not to exceed 25 feet, while the difficulties of construction and maintenance would have been considerably reduced.

Rain commenced falling just before our noon camp, and we made the remaining fifteen miles with alternate rain and sunshine. At Jackson's ranch, one of the former stopping places, the hotel and most of the other buildings have been crushed by the snow, and all is now desolate, where, in former times, as many as seventy-five large teams, with a proportionate amount of other travellers, could be seen stopping for the night. This place, for which $30,000 were refused at that time, could now be bought for a few hundred.

Webber Lake.

Towards night we arrived at "Webber's," glad enough to rest from our rough ride, and ready to do justice to the supper awaiting us.

Webber lake is a beautiful sheet of water, nearly round and about a mile in diameter. It is situated a short distance beyond Henness pass and about 100 feet below it, having an altitude of 6,500 feet above the sea-level. Dr. Webber, the proprietor, has been here about twenty-one years, and, after many trials, has succeeded in stocking the lake with what he calls silver trout, a kind which thrive and keep fat in these waters. There is a good hotel here, accessible by stage from Truckee, which is the railroad station for this place. The fishing here is excellent; there are plenty of boats on the lake, and the guest is kindly furnished with trolling lines and spoons, or with lines and bait for still fishing, or, if preferred, he can use the fly.

We went out one morning and captured seven or eight before breakfast, weighing from a pound to two and one-half pounds, and at night a party, torch fishing, brought in twenty-two in a short time.

The air was keen enough in the early morning to make one think of winter, and a little snow fell during the night. Large bodies of snow which fell last winter can be seen upon the mountains all around, in some places still 30 or 40 feet deep although exposed to the sun on the southern sides of the mountains.

About a mile from the hotel is a small lake called Lake of the Woods, and near this is

The "Observatory,"

At an altitude between 7,000 and 8,000 feet. From this observatory the view is very extensive and wide, embracing Sierra valley, with the towns of Sierra and Loyalton, the divide between Goose and Honey lakes, Surprise valley, distant 164 miles, Pyramid lake, Humboldt desert, Reno, the Geiger grade, Mount Davidson, Washoe valley, etc. This point seems to be a sort of an electrical center for storms which come sweeping up the valley, as the trees at one particular point are very much scarred by lightning.

Leaving Webber's, we took the road to Meadow lake and Fordyce valley, visiting at the latter place the great reservoir and

Dam of the South Yuba Canal Company.

The dam is about 600 feet long and 57 feet high, 190 feet base and at present 60 feet broad on top. It is the intention to continue it up until it is 30 feet higher, giving the lake an area of about 1,200 acres and an average depth of about 75 to 80 feet. The dam is superbly built, every stone being carefully laid, and it seems as possible to overturn the mountains themselves as this dam.

From here we went to Meadow lake, another reservoir of this company, with a beautifully laid dam 800 or 900 feet in length.

Upon the shore of this lake is the

Town of Meadow Lake,

Formerly called Summit City. This town sprung up during an excitement caused by the discovery of rich gold quartz mines at this point, and in a short time became a flourishing city with a business in its streets so large that a traveler would often have to pick his way through the crowd of teams as carefully as now in San Francisco. Three large, finely furnished hotels were built, and stone warehouses that would be a credit to any place; quartz mills were erected and completely furnished with the best machinery, with steam or water power to drive them; sawmills furnished lumber for building and the mushroom town presented as thriving an appearance as if it had existed a quarter of a century. But soon came the discouraging discovery that the ores could not be worked to a profit. Failures and sheriff's seizures took place, and the town was deserted almost as soon as it had grown. Hotels, houses and stores were abandoned with their furniture and fixtures intact; mills stopped; new mortars, stamps, shoes and stems, pans for amalgamating, gearing, pulleys and all the machinery necessary for first-class mills have been abandoned and still lie there with the scale upon them as they left the foundry. Year by year the abandoned buildings are crushed by the weight of each succeeding winter's snows, and gradually the town goes to ruin. A large stone warehouse which had been filled with furniture from the hotels and houses for security, had its iron doors forced last summer by some miscreant, and it was burned, together with two hotels and all the buildings in one of the principal blocks. At present there are only three families left of all the once populous town.

One man, Mr. H. H. Hartley, has always believed in the mines and has proved his belief by sticking to them through all the vicissitudes of 13 years. He has finally discovered a process by which he is able to work the ores profitably on a small scale, and he believes that with money enough to put up suitable machinery, the ores can be successfully worked. Should this ever take place, Meadow Lake may again become a flourishing town. Our road home from Meadow Lake lay through forests of pine, tamarack, fir and cedar, crossing patches of snow occasionally, and passing the "English dam," which is 96 feet in hight. For a pleasant summer trip, a visit to the Sierras is more satisfactory than any we have yet taken. S.

William Wright's Ranch.

EDITORS PRESS:—While enjoying the hospitality of a pleasant morning the other day at the house of Mr. William Wright, who lives six miles west of Santa Clara, I saw and learned some things that may interest the readers of the RURAL PRESS.

Mr. Wright's ranch consists of 320 acres of good grain and fruit land, on what may be considered the first slight elevation toward the foothills. The whole tract lies well for cultivation and drainage, with a smooth, even surface, falling off slightly towards the bay. It is all well fenced and under good cultivation. The central portion of the place, occupied by the house, barn, orchard, garden and vineyard, is slightly elevated above the rest of the place, and the soil is of a rich, sandy loam—evidently deposit or sediment land.

The house is a good, substantial, roomy one, well embowered in a little forest of ornamental and fruit trees, tastefully arranged, and showing good cultivation. The barn, cattle sheds, outhouses, tankhouse, etc., are ample, conveniently arranged, and the whole place presents a fine picture of a thrifty, well-arranged California farm. Indeed, I understand that our new forthcoming county atlas will have a $120 picture of this place, showing not only that Mr. Wright has a nice place, but that he is a public-spirited man.

In the orchard, vineyard and cultivated land near the house there was a profusion of fine fruit and vegetables. His peach trees, especially, look vigorous and healthy—having just yielded a good crop of choice fruit. The small vineyard was loaded with luscious grapes. Melons, squashes, tomatoes, beans, corn, etc., were abundant, wasting everywhere. Mr. Wright showed me some peanuts, growing and fruiting well.

Mr. Wright devotes the use of his broad, smooth fields mostly to growing grain, of which he never fails of something of a paying crop, though this year the yield of straw per acre was far in excess of the usual amount of wheat; the yield of wheat was only fair, not coming up to his best former crops, but as a prudent farmer he was utilizing much of this surplus crop of straw by stacking it up against the wants of some less plentiful year. He had just finished stacking a rick of straw 400 feet in length, which was to be securely fenced in for this purpose.

Wise Provision for Stock.

A 400 foot rick of well saved straw would be a nice thing for a man who keeps 50 to 60 head of stock to fall back on in some such years as most old Californians have seen.

Mr. Wright was doing another thing for the comfort of his stock which I wish to commend. The good book says: "A righteous man regards the life of his beast, but the tender mercies of the wicked are cruel." I should not like to be called to sit in judgment on the character of some of our farmers and stock men in the light of this declaration, whose cattle, young and old, are left exposed to all the rains of the winter without any shelter. But aside from all humanizing considerations in the care of our stock, as a matter of mere economy, greater attention to this subject might well be given by many farmers.

But I was going to refer to a large

Cattle Shed,

50 feet by 45, built in such a way as to hold a large amount of feed in the central part, with an eave projecting all round so wide as to shelter the cattle while feeding in the mangers or ranged along the sides of the building; and the roof so framed as to need no posts to support the roof, against which the cattle might push and hurt each other.

I confess there is nothing very new or wonderful about this arrangement, and yet plain and simple and cheap as it is, I see many ranches which have nothing of the kind. I can imagine something of the comfort and satisfaction a man may feel on a stormy night, as he rests on his own comfortable bed, to know that all the faithful dumb beasts dependent on his care are all sheltered from the cold wind and rain. G. W. M.

Santa Clara, Cal., Sept. 30th, 1876.

Agricultural Notes in Chile.

Morning Glory.

EDITORS PRESS:—Chile in places has been overrun with this plant, called here *coriquela*, and when allowed to grow destroys the growth of vegetable and grain crops. It takes the life out of grass. I have seen fields that were once useless on account of the weed completely reclaimed by the following method:

The first year plow and cross-plow deeply the ground, then harrow the land so that the earth be well pulverized, and sow flaxseed.

The second year plow in the same manner and prepare the ground, upon which sow very thickly with hempseed.

Following this rule has never failed in destroying completely the plant. Sowing to flax stops the growth and kills a portion of the plant, and what other effect it may have is not quite understood, but it has been proved that it should be followed by hempseed, and that either alone will not do the latter, however, partially succeeds, but the rule in full should be carried out.

Grapes.

The famous Huasco grape probably makes the best raisin in the world and is a very scarce article in this market; each year with the demand the price advances. It should be transplanted to California. Any one succeeding in producing the same grape or raisin as here would make a fortune. Santa Barbara would probably be suited for it. This grapevine has been transplanted in many parts of Chile and other portions of South America, but in every case the change of location has produced a change in flavor and appearance.

Alfalfa.

Alfalfa, it is said, when made into hay will maintain cattle and horses, but will not fatten, and is really little better than wheat chaff from the machine. Wheat hay is far preferable. As green feed it is a disputed point if it is better than trefoil or red clover for milk or beef. Many of the haciendas are doing away with alfalfa and sowing their pastures to clover, and this in the face of long usage and formerly strong prejudices in favor of alfalfa.

Cure for Mange.

An excellent remedy for "dog mange" is to boil beans and take the water when tepid and apply to the skin, to be preceded by a strong dose of sulphur inwardly.

Peanuts.

The people of this country are unacquainted with peanuts, and the circus boys during the performance have to confine themselves to lemonade and candy.

Blue Gum Trees.

A number of acres of this tree have been sold at $5 per tree, seven years of age. They will be cut up into planks, boards, etc., for mining purposes, as an experiment. HAYWOOD.

Chile, August 17th, 1876.

Description of Santa Cruz County.

EDITORS PRESS:—Any person wishing to visit Santa Cruz county by land must do so by one of six ways of approach or roads, which alone enter the county, and all these ways except one are over mountains more or less lofty, some of them nearly 2,000 feet above the level of the sea. This exception is by the Southern Pacific railroad, which enters the county by the canyon which the Pajaro river has worn through the mountains in its passage to the ocean, and is the least interesting one to the tourist. The most common ronte and perhaps the most interesting one, all things considered, is from the Santa Claia valley, by way of Los Gatos, Lexington, "Mountain Charleys" and "Scott's valley," to the city of Santa Cruz direct. Or, diverging to the left before you reach the summit, passing by Schultheis lagoon, and along the summit to Taylor's pass, then down the mountains along the creek and by the town of Soquel, indirectly, you reach Santa Cruz.

The next route is the Bear creek, and is a new one, having been opened about 12 months. This leaves the Los Gatos at Lexington, turning to the right up a steep grade, to the summit of the mountain, and then, still bearing to the right, down Bear creek to its mouth, entering the

Valley of the San Lorenzo,

Fourteen miles above Santa Cruz It is reported that another road, leaving this one on the south side of the summit and passing down the Zayante creek to Felton, is nearly completed and will soon be opened for travel. All these routes leave the Santa Clara valley at Los Gatos. But the Saratoga, which is our third route, leaves the Santa Clara at the town of Saratoga, and passing up, over and down the mountains, it reaches the San Lorenzo some 18 to 20 miles above Santa Cruz. Of course all these last named routes reach that city down the San Lorenzo.

The Pescadero route is from that town down the coast to Santa Cruz, and is all the way immediately on the beach, or within a mile thereof. This last route traverses what I shall designate as the "Coast valley," and enters the Santa Cruz at a short distance west of that city.

The last route to name (as I have already mentioned the one by the Southern Pacific railroad) is the one leaving the Santa Clara valley at either the Twenty-one Mile house or at Gilroy, both meeting at the Uvas creek, then up the creek to where it strikes the immediate base of the mountain, then up, over and down the same on the old San Jose turnpike road into the Pajaro valley, five miles from Watsonville. In giving the termination of these different routes, I have indicated three general divisions, constituting as many valleys. The largest valley is the Pajaro, occupying the whole of the eastern end of the county between the county line and the bay, and from the Pajaro river on the east to the waters that flow into the Aptos creek on the west. The Santa Cruz valley joins it on the west. Extending from the county line on the north to the bay on the south, including the valleys of Lorenzo, Scott's and other smaller valleys, lying among the hills, it terminates at the point where the San Lorenzo mountains approach nearest to the coast, just west of Santa Cruz. Above this point to the county line, lying between the coast mountain and the open sea, is the "coast valley." These divisions are my own, and seem to me to be the most natural that I can give to intelligently describe the country.

What I have written thus far, I have designed as prefatory to what I will now state as my purpose in naming these different routes into Santa Cruz county, and their terminations, viz.: It is to give in the present and a sufficient number of future articles a

Description of these Various Routes.

I do this because they are exceedingly interesting in themselves, and because they either *are* the approaches or are immediately connected with the approaches of all the localities I wish to notice in my descriptions of this county.

Taking for our present purpose the

Los Gatos Route,

We leave the Santa Clara valley by entering the canyon and passing up the Los Gatos creek two miles, to where the mountains recede and form a kind of mountain valley. The road through the canyon has been cut with great labor and expense in the side of the mountain, and in many places through the solid rock for a considerable distance. The road bed is 100 feet or more from the foaming, roaring stream, rushing headlong below, and winds in and out along the sides of the mountain, sometimes cut through a bold projecting point, almost hanging over the stream, then with a sharp angle passes on and over a bridge, spanning a deep defile, at the extreme reflex of the mountain side, as it recedes from and then approaches the stream running at its base. Sometimes you could drop a pebble into the stream from the road, and at other places the descent is gradual and hidden by a variety of trees and shrubs. These, covered with dense foliage, and oft with flowering vines, interspersed with the scarlet leaves of the poison oak and the crimson and gold of the madrona, present to the eye of the nature-loving tourist a picture of variegated and oftimes of gorgeous beauty. Among other trees and shrubs, I have found here the coffee shrub and the monntain mahogany. High up on the side of the mountain, on the opposite side of the creek, running the whole length of the canyon, is the flume of the water company which supplies San Jose, 10 miles away.

This road is watered—hard as a rock—and considered with reference to its surroundings one of the most picturesque and beautiful in the State. After passing this canyon and the small town of

Lexington,

The road continues up and several times across the creek, the banks of which open ont on either side into small flats, bounded by gently ascending hills covered with farms, orchards and vineyards, until it reaches the base of the solid monntain, rearing its lofty summit oceanward. And now as we contemplate these lofty barriers rising before us, whose tops, bristling with tall redwood, pine and fir, surrounding and protecting these ocean valleys within, it seems as if Nature, conscious of the value of her stores of mineral and vegetable wealth, garnered within the borders of this little mountain and sea girt county of Santa Cruz, had reared these high bulwarks to guard her treasures from the rapacity of the outer world; and if, permitting man to dwell within these hallowed precincts, 'it would be only as he dwelt in Paradise, to enjoy, bnt not to destroy her beautiful domain. At this point the road leaves the Los Gatos creek and begins the real ascent. The grade is smooth and very easy, and is sprinkled from top to bottom, and is perfectly free from dust until it reaches "Patchin," a post-office station near the summit. Here the road branches to the right and for a mile up a steep and dusty grade to the county line between Santa Clara and Santa Cruz. This branch is the road by "Mountain Charleys" and the one I have designated as "direct" to Santa Cruz.

From the county line to "Charleys" is about a mile, and the road between these points is new—being completed within the present year, and runs on almost a level grade. Here, formerly, the road ran to the right and up over a peak nearly 2,000 feet above the sea, with steep grades on both sides. Just before we reach this point there is a fine view of the Santa Clara valley. Looking through the depression of the Los Gatos creek, where it has burst through the mountain and out into the plain, forming a wide gate, you see the valley in the foreground dotted with oaks, resembling a vast orchard farm; while beyond is Santa Clara city, and further still the town of Alviso and the bay of San Francisco, across which is the town of Centerville, in Alameda county, and then, as a background to the picture, is seen rising the dark form of Mount Diablo. This new piece of road winds entirely around the headwaters of the Soquel creek in this direction and gives a fine longitudinal view of Santa Cruz mountains eastward. Immediately under your feet, in the deep descending canyon of the Soquel, is an unbroken forest of giant redwood; while to the left, extending for miles and apparently terminating in the distance with Mount Bache (Loma Prieta), lies the summit of the mountain. It is lower than our point of view and can be seen the whole distance. It is covered, too, the whole length, with finely cultivated farms, orchards and vineyards. At the farther end, and at the base of Loma Prieta, is the celebrated and pioneer fruit ranch of Lyman Burrel, whose name has often and deservedly been seen in the columns of the RURAL PRESS in connection with thoughts and methods in regard to fruit culture and other subjects of vital importance to the agriculturists of this State. Having entered Santa Cruz county and passed the summit of the Santa Cruz range, the tourist perceives a change in climate, soil and scenery. Instead of valleys with mountain-limited views rising above him, he now looks down on mountain upon mountain below his feet. He sees mountain and canyon, hill and valley, river and rivulet, farm and forest—all mapped before him to the ocean's shore, whose illimitable waters alone bound the the view. C. N. W.

Watsonville, Oct. 2d, 1876.

RESTORING DAMAGED VELVET.—The *Moniteur de la Sulud* published the following method for restoring velvet to its original condition. It is well known that when velvet has been wet, not only its appearance is spoiled, but it becomes hard and knotty. To restore its original softness, it must be thoroughly dampened on the wrong side, and then held over a very hot iron, care being taken not to let it touch the latter. In a short time the velvet becomes, as it were, new again. The theory of this is very simple. The heat of the iron evaporates the water through the tissue, and forces the vapor out at the upper side; this vapor, passing between the different fibers, separates those which adhere together in hard bunches. If the velvet were ironed after damping, an exactly opposite result would be obtained. It is therefore necessary that the substance should not come in contact with the heated iron.

SWIMMING A HORSE.—On reaching deep water, the rider should relieve the horse of his weight, by sliding into the water beside the horse, grasping the mane near the withers with one hand, thus requiring the horse simply to tow the rider, the latter assisting him in this by using his legs and free arm in the same way as in swimming. In crossing rivers with rapid currents the rider should take the down stream side of the horse.

THE DAIRY.

The Dairymen's Convention.

According to announcement, the members of the California State Dairymen's Association met in Y. M. C. A hall, on Sutter street, on Wednesday afternoon, Oct. 4th. In the temporary absence of the president, A. Mailliard of Marin, E. A. Davidson, of Santa Clara, was called to the chair. The secretary, Mr. Wickson, read the minutes of the May meeting, which were approved. The secretary also gave an outline of the design and objects of the association, in part as follows:

Mr. President and Gentlemen of the California State Dairymen's Association: We are met in accordance with the appointment made at the meeting in May, at which preliminary steps were taken for the organization of this society. We have come together in accordance with a conviction that a union of thought and action will be of great advantage to the industry in which we are interested or engaged. We are aware that in nearly all the occupations of men, which prosper by an increase of knowledge and investigation, there has been gained great advancement, both in methods of production and in commercial features, by a comparison of experience and union of action among the producers. In addition to this general experience of producers' organizations, we have in the dairy especial evidence of the value of association in the example of the associations of the Eastern States, which have increased dairy information, investment and success a hundred-fold during the last score of years.

As an industry rises in the scale of skill, the greater is the advantage which can be secured by a united effort for new facts and improved policies. These can be best gained by the workers in the industry for themselves, because no one else knows so well the conditions under which these facts must be applied and these policies tested. When this spirit of advancement is once awakened it soon learns to take to itself the triumphs of the inventor and the discoveries of the scientific man, and thus all the lines of progress are laid under tribute to the industry. There is no specialty of agriculture which calls for higher skill and fuller investigation than the dairy. Take the industry from the pasture through the matters of breeding stock for the production of milk, the manufacturing of milk into the best qualities of butter and cheese, the proper handling of the product from the vat or churn until it reaches the market, and finally the best and fairest method of marketing it—all these are operations which call for skill and wisdom which no branch of agriculture can surpass. Success in the dairy calls for the finest arts of production. A few degrees of heat below or beyond the right point will change the whole character of a cheese; so will a slight variation in the development of the acid. A taint in the atmosphere or a particle of filth in the milk or the utensils will destroy the profits on the work of the butter maker. As so many and so delicate points are involved it is very apparent why there is great advantage in producers meeting and discussing the items of their experience in the handling of these subtle agents and these intricate conditions.

In their isolated location upon their ranches the dairymen have only their individual experience to aid them in the solution of vexed questions. They may make a good product and ship it to the market. If the product is abused by the transportation companies, or if the city merchant does not act uprightly, the producer, in his individual capacity, has no remedy. If, on the other hand, there is a society of producers, they can exert an influence and speak a language which men are bound to respect.

Here in California, it seems to me there is a need for association among dairymen greater than in the older dairy regions. Here there are many new conditions which are unknown to the dairymen of the older States. Their experience will not aid us. The true way to work under these conditions we must discover for ourselves. The way to discover these things is to compare experience, to make new experiments when matters are in doubt, and to accomplish this a union of producers is most powerful. We have a State which for adaptation to dairying cannot be surpassed in the country. We have a growing dairy interest which deserves to take high rank among the industries of the State.

Besides filling the shortage in our supply of dairy products, which admits of importations from the East, we have the chance of greatly extending the consumption of dairy goods on this coast. People in general know very little about the practices of the dairy. They have no idea how interesting and intricate dairy practices are. It has been proved by experience at the East that the consumption of dairy products, especially cheese, has been promoted by the labors of the associations. These meetings are reported in the newspapers, and people read the reports and begin to see that there is something interesting in dairying if men can talk so much about it. The next impulse is to learn more about the product, and a taste is aroused which doubles the speed with which the cheese pass beneath the grocer's knife.

Since the meeting in May I have written a great many letters to dairymen in the different regions of the State asking them to come forward and take part in this meeting. I have received many favorable replies. Quite a number who stated their inability to attend the meeting said that they believed the society would be of much value to them and they would contribute to its support. In answer to my invitation a number of gentlemen have prepared statements of their experience and belief concerning dairy practice and they will give them here for your hearing. It is expected that no member will let any point pass upon which he desires to give or to ask further information. After the addresses there will be time set apart for the discussion of the subject. It is to be hoped that the members of the society will not fail to bring forward all matters of dairy experience which are of interest to them. It is every one's privilege to speak freely concerning the points on which he desires discussion or action.

A committee consisting of Henry Page, of San Francisco, H. Y. Stanley, of San Luis Obispo, and A. Huff, of Marin, was appointed to nominate officers for the ensuing year. The following report was made, unanimously adopted and the officers declared elected:

President—Judge John A. Stanley, of Alameda.

Vice Presidents—I. C. Steele, of San Mateo; E. A. Davidson, of Santa Clara; A. H. Stinson, of Marin; H. M. Terry, of Santa Cruz; A. Mailliard, of Marin; C. H Ivins, of San Luis Obispo, Hon. C S. Abbott, of Monterey; L. W. Walker, of Sonoma; Sherman Day, of Contra Costa.

Executive Committee—Robert Ashburner, of San Mateo; H. Y. Stanley, of San Luis Obispo; Henry Claussen, of Marin.

Secretary—Edward J. Wickson, of San Francisco.

Treasurer—Henry Page, of San Francisco.

Judge Stanley, on being called to the chair, expressed his full sympathy with the aims and objects of the association. Any effort, he said, which will show us how to make dairying more profitable is worthy of promotion. He would serve the society to the full extent of his ability.

Lecture by Prof. Hilgard.

Prof. E. W. Hilgard, professor of agriculture at the State University, was present by special invitation, and gave the society a very interesting and instructive address. We give below an outline of his remarks:

I am pleased to meet the representative men of one of the State's most important industries, and I deem it highly important that regular annual meetings should be held, to take counsel together regarding the commercial and technical features of your pursuit. It is one of those in which intelligent management and skill are of paramount importance, and exchange of views and experience are of the most direct benefit. It is also one of those pursuits in which the application of scientific principles and instruments have proved of the most obvious and undeniable practical consequence.

The general agricultural associations of the country have become a highly important lever of progress in agricultural pursuits; yet they do not render superfluous the formation of bodies representing special departments. Specialization of pursuits is the condition of their perfection.

Now, I do not come here with the pretension of being able to give you important practical advice to-day. I am as yet new to the country, and a variety of circumstances, among others bad health, brought with me from the East, has prevented me from becoming as widely acquainted with people and their ways of doing as I have been in my own State, and expect to be here hereafter. But I do come to offer you, severally and jointly, all the co-operation that I myself and my department have the means of giving. And I will offer you a few suggestions on points which have thus far come under my notice.

I have observed with great pleasure the progressive tendency of California agriculture. Improved agricultural implements are nowhere so perfect nor so widely appreciated and used. It is in strong and pleasing contrast with the old world, and even most of the older States. The emigration to California seems to have brought the pick of the enterprising and inventive population—that of "advanced ideas." Thus, with your wonderful climate, you have great advantages, and correspondingly great responsibilities.

As regards your special pursuit, I know both from the reading of your agricultural reports and journals, and from the daily testimony of my palate, that in *some* of their products at least, the dairymen of California are neck and neck with the best of older States. Your cheese I find excellent. In the specialty of butter making doubtless California dairymen labor under a disadvantage in the absence of the first-class pasture grasses, enforced by the summer drouth. Alfalfa, the great stand-by for green soiling and summer pasture, makes better cheese than butter. Yet I cannot doubt that with the materials you have to work with, better results could be achieved with care and systematic study of the special conditions.

In this connection I would earnestly recommend to your notice the excellent volume on dairying recently published by Prof. Arnold, of the American Dairymen's Association. While eminently sound on general principles, it gives you in a brief and direct manner the results of a large personal experience in the art, and of

Continued on Page 258.

Patrons of Husbandry.

The Grangers' Song.

The Grangers they are coming—
They are coming now to stay—
Shouting the battle cry of "Labor,"
Till they sweep the speculators
And monopolists away—
Shouting the battle-cry of Labor.

(CHORUS.)

Hurrah for the plow, boys! hurrah, girls, hurrah!
We'll sow our wheat and barley, and gather in our hay,
While the girls will do the milking,
And will join us in the song—
Shouting the battle-cry of Labor.

We have toiled both late and early,
'Till we've made the desert bloom—
Shouting the battle-cry of Labor,
While our girls have done the spinning,
And our wives have run the loom—
Shouting the battle-cry of Labor.

(CHORUS.)

Hurrah for the plow, boys! etc.

We're the bulwark of the nation,—
'Tis our toil that makes her grand,
Shouting the battle-cry of Labor;
And our sons are her defenders,
For they love their native land—
Shouting the battle-cry of Labor.

(CHORUS.)

Hurrah for the plow, boys! etc.

The time is fast approaching
When our voices will be heard
Shouting the battle-cry of Labor,
And the men who till the soil,
Will for office be preferred,
Shouting the battle-cry of Labor.

(CHORUS.)

Hurrah for the plow, boys! etc.

Come let us work together
For the good that we can do—
Shouting the battle-cry of Labor,
And no longer give our earnings
To the rich and lordly few,
Shouting the battle-cry of Labor.

(CHORUS.)

Hurrah for the plow, boys! hurrah, girls, hurrah!
We'll sow our wheat and barley, and gather in our hay,
While the girls will do the milking,
And will join us in the song—
Shouting the battle cry of Labor.

—*H. Winchester, in New Age.*

The State Grange.

The California State Grange closed its meetings and the annual session on Saturday evening, October 7th. An adjournment was had, to meet in San Francisco next year. The closing meeting was very enjoyable. The hall was resonant with music. Fellow-feeling, wit, harmony and hopefulness fell from every one's mouth, and the closing was in fitting spirit after the arduous work which characterized some of the earlier meetings.

The work of the State Grange this year has been mainly in the line of righting the ship, bringing things into better trim and preparing for work. The disposition was to review the past and draw lessons for future action, rather than for the inception of any new enterprises. The Order has never before stood upon clearer and firmer ground for straightforward progress.

One of the important deeds of the session was the election of three new members for the Executive Committee. The retiring members of the Committee enjoyed the utmost confidence of the Order. They devoted their time to the work, sometimes to the neglect of their own affairs and are worthy of thanks for their deeds. The new members of the Committee are F. J. Woodward, of Stockton; A. D. Nelson, of Nelson, Butte county; M. Pomeroy, of Hollister, San Benito county.

The Matrons held a meeting of their own on Saturday A. M., during which sound, interesting and instructive discussions prevailed. Will Sister Colby, who presided, assist us with a report?

Bro. Higgins lead the music of the meetings, with an able choir, accompanied by a Prince's organ donated for the session by A. L. Bancroft & Co.

It was voted to continue the publication of the *California Patron*.

An edition of the new Constitution was ordered printed, copies of which will be sent to every Grange.

Thanks were voted the committee on preparation of the Pomona feast, and also to Worthy Master Webster for his faithful and able services.

A resolution carried referring unfinished business at the close of the session to the Executive Committee for their consideration, and action.

We shall make a break this week in our regular report and insert the list of Masters of Subordinate Granges who were present and had a vote in the work of the State Grange. Next week we shall resume our report of each day's proceedings. The following is the list:

Grange and No.	Master.
Antelope Valley, 100	H. A. Logan
Atlanta, 111	Putnam Visher
Antioch, 145	J. Wiltse and wife
American River, 172	E. G. Morton
Alhambra, 230	J. Strentzel
Bennett Valley, 16	A. Burnham and wife
Badger Flat, 78	W. F. Stockton
Buckeye, 96	W. Sima and wife
Borden, 144	E. S. Russell
Binghampton, 174	A. Bennett
Balena, 237	C. O. Tucker
Chico, 6	W. M. Thorp
Coluaa, 48	J. R. Totman
Castoria, 54	F. J. Woodward
Cloverdale, 63	C. H. Cooley and wife
Ceres, 64	H. W. Brouse
Cache Creek, 82	S. B. Holton
Capay Valley, 90	J. M. Rhodes
Cottenwood, 116	W. E. Riddle
Centerville, 120	J. M. Horner
Cosumnes, 176	James A. Elder
Collegeville, 184	A. M. D. McIntosh and wife
Cahto, 202	J. J. Thomas
Cambria, 25	C. H. Ivins and wife
Dixon, 19	J. M. Dudley
Deep Creek, 136	A. W. Mathewson
Elmira, 15	James McCrory and wife
Enterprise, Sacramento, 129	J. M. Bell
Elk Grove, 86	Thos. McConnell
Eden, 106	J. Russel
Evening Star, 194	A. D. Nelson
Florin, 130	L. H. Fassett and wife
Grand Island, 22	J. Meyers
Georgiana, 122	H. F. Smith
Gilroy, 168	C. Wentz
Golden Gate, 266	J. D. Blanchar and wife
Hollister, 11	M. Pomeroy and wife
Healdsburg, 18	B. B. Capell
Jackson Valley, 234	W. H. Prouty
Kiwellattah, 88	G. B. Kneeland
Lower Lake, 77	C. L. Wilson
Livermore, 91	Daniel Inman
Lodi, 92	J. M. Fowler
Lockeford, 131	G. C. Holman and wife
Lincoln, 187	A. J. Soule
La Honda, 222	M. Woodhams
Lompoc, 248	Wm. Jackson
Merced, 7	R. S. Clay
Morro, 27	A. J. Mothersead
Montezuma, 158	James Galbrath
Napa, 2	D. Gridley
Nord, 86	J. B. Clarke
North Butte, 225	B. R. Spillman
Old Creek, 26	E. H. Smith
Ocean View, 157	J. G. Knowles and wife
Oakdale, 160	C. R. Calonder
Pilot Hill, 1	P. D. Brown
Pope Valley, 197	C. A. Booth
Pomo, 216	John Mewhinney
Plymouth, 232	J. Sallee
Pescadero, 32	I. C. Steele and wife
Pajaro, 93	D. Crawford
Pacheco, 264	F. M. Warmcastle
Rockville, 107	J. R. Morris and wife
Rio Vista, 159	J. W. Cameron
Round Valley, 217	Philo Handy
Suisun, 9	R. C. Halle
San Jose, 10	C. T. Settle
Sacramento, 12	G. W. Hancock and wife
Salinas, 24	P. Mathews and wife
St. Helena, 30	John Lewelling
Saticoy, 49	E. B. Higgins and wife
Santa Maria, 52	M. D. Miller
Santa Cruz, 68	Blakie Pilkington
Stockton, 70	W. G. Phelps and wife
Santa Clara, 71	J. A. Wilcox and wife
Sespe, 164	F. A. Sprague
Sutter Mill, 179	J. G. O'Brien
Sherman Island, 192	A. J. Bigelow
South Sutter, 207	Thos. Boyd
Sonora, 208	G. C. Soulsby
Temescal, 35	C. Bagge and wife
Two Rock, 152	S. M. Martin
Ukiah, 114	A. O. Carpenter and wife
Vacaville, 5	R. C. Marshall
Vallejo, 113	J. F. Demlug and wife
West San Joaquin, 3	C. D Needham
Woodbridge, 84	Ezra Fisk
West Grafton, 89	Sharp Nack
Walnut Creek, 119	M. L. Gray
Watsonville, 124	A. Cox
Washington, 228	A. A. Vansandt
Yolo, 13	R. B. Blowers
Yountville, 21	T. Grigsby

English Wheat Market and Direct Shipments.

EDITORS PRESS:—Your late issues prove that, as usual at this season, our wheat crop, ocean freights and Liverpool prices for same, form the absorbing topic for California farmers. In this connection a statement of certain facts about English prices, learned for my own satisfaction and that of Pacific coast farmers, in my late visit to England, may be acceptable to your readers.

The question is often asked by farmers, who have been made suspicious by many discovered impositions,

Are Cable Dispatches Correct,

Which profess to give Liverpool quotations of the wheat markets, as published in our California and Oregon papers?

To test this very important matter, I made special inquiry while examining the co-operative flour mills—corn mills, as they call them, in Leeds, Oldham and Rochdale. We can certainly place full confidence in the information their managers gave, and I will vouch for the entire accuracy of the figures given below if your usually careful compositors will do me the favor to have them printed just as I shall write and verify them here.

Your readers will understand that the prices here recorded were actually paid in Liverpool at the dates given for the wheat ground in the mills named.

I give them without knowing how they compare with cable quotations of the same dates from Liverpool in our papers, not having complete lists of the latter.

If they correspond very nearly with our press quotations for the same months, it will tend to increase our confidence in such cable dispatches; if they differ much, we will know we need a more reliable source of information for our daily and weekly market reports. My only object is to have the truth known and appreciated. You and your readers can make such comparison as you wish with the published market reports of the past year.

First, to give some idea of the amount of California and Oregon wheat consumed by the co-operative mills belonging to our English friends, who would like to open direct trade with us:

Three out of 20 of these co-operative mills in England and Wales alone use the following amounts weekly: Leeds, 1,600 quarters, nearly half from California and Oregon; Rochdale, 1,000 quarters, half of it from California and Oregon. The Star mills of Oldham, running 16 stones, consume about 800 quarters per week, of California and Oregon, and about an equal quantity of English wheat and Western red wheat. The latter mills consume every week also some 300 or 400 quarters of our Western maize or Indian corn, none of which is raised in England.

Prices Paid by English Millers.

The managers of the latter mills kindly gave me from their books the following prices, paid by them in Liverpool for foreign wheat in March and April last:

March 2d, Red wheat	9s	per 100 lbs.
White or Cbile	9s 7½d	per 100 lbs.
March 10th, Oregon	10s	10d per 100 lbs.
Michigan	10s	5d per 100 lbs.
March 14th, American Red	9s	per 100 lbs.
California	10s	per 100 lbs.
Oregon	10s	6d per 100 lbs.
Calcutta	8s	9d per 100 lbs.
March 30th, Oregon	10s	7d per 100 lbs.
April 13th, California	10s	per 100 lbs.
April 20th, California	10s	per 100 lbs.

Another fact of interest they gave me is that California and Oregon wheat, when it reaches them, averages in weight about 62¼ pounds per bushel. This shows no great increase in weight after it leaves our coast.

The following list of prices, extending over 12 months, was handed me by Mr. Abraham Greenwood, one of the original Rochdale pioneers, with the assurance that it accurately gives the average prices for California and Oregon wheat from May 1st, 1875 to April 30th, 1876, as paid to Liverpool wheat brokers by

Rochdale Flour Mill,

Owned by the veteran Rochdale co-operative society, in John Bright's noted town:

	Cal. Wheat.		Oregon Wheat
May, 1875	9s	5d	9s 9d
"	9s	3d	9s 4d
"	9s	2d	
June, 1875	9s		None bought
"	9s	3d	
"	9s	1d	
July, 1875	9s		9s 5d
"	9s	5d	11s 5d
"	9s	6d	
"	9s	7d	
August, 1875	None bought		11s 7d
"			11s 4d
September, 1875	11s	1d	11s 7d
October, 1875	11s	2d	11s 2d
"	11s	3d	
"	11s	2d	
"	11s	3d	
"	11s		
November, 1875	11s		11s 6d
" "			11s 8d
December, 1875	10s	10d	None bought.
" "	11s	3d	
January, 1876	10s	6d	11s 0½d
" "	10s	6½d	
" "	10s	6d	
" "	10s	5d	
February, 1876	10s	1d	11s
" "	10s	4d	11s
March, 1876	9s	8d	None bought.
April, 1876	9s	10d	10s 5d
" "	10s	1d	

They also informed me, when I visited the mill at Rochdale, that a few days before, on May 2d, they had paid in Liverpool for California wheat 9s 10d per cental. They find our wheat ranges from 60 to 63 pounds per bushel, according to quality, when it reaches Rochdale.

These facts and figures I entrust to our farmers' faithful helper, the RURAL PRESS, hoping they may be of some interest, possibly of some value, to my fellow Patrons and friends of California and Oregon.

I confess to being much suprised, as many of your readers will no doubt be, that Oregon wheat is rated by English wheat brokers so much higher always than California wheat. I record the fact as they gave it to me. I could not help wondering if the accident may not sometimes happen that they buy a cargo of first-class wheat as California, and sell it a Oregon. Such a thing could happen, you know, and what a nice little margin there is between the two on a whole cargo. For instance, five pence difference per cental on a cargo of 40,000 centals would be about $4,000. The fact of the business is, there is just enough *mystery* about the differences between quoted prices of what they call "average wheat" and "club wheat," also, of California and Oregon wheat, to leave considerable room to speculate on. Don't it look so to you?

Co-operative Shipments.

Now, would it not be refreshing, and a great satisfaction, to send, through a good, sound, fair, well-managed company, controlled by Patrons on this side and our co-operative friends on the other side, a few cargoes of our best wheat, say 30 or 40 ship loads yearly, from San Francisco and Portland to these 20 or more co-operative grain mills of Great Britain?

The result would be that after paying at fair rates all the expenses absolutely necessary to make a well secured transfer, all such profits and perquisites as go, under the present system of exchange, to the brokers on both sides who manipulate our grain, would be divided on an equitable basis between the farmers who produce the wheat and the numerous co-operators in Europe who consume it.

Now, this is no fancy sketch. It is no idle dream. It is the real state of the case. These improved conditions suggested for transferring our wheat, which England must and will have, can be made a reality by putting in practice, at the earliest day possible, that international co-operation by which the "Grangers' Business Association of California" and all similar Grange associations will be placed in direct and safe business communication with the 1,000 and more co-operative societies of the United Kingdom, their 400,000 members, their families and friends.

Not only does this proposed international co-operation—properly sustained by our local co-operative societies on both sides—open the way for a more satisfactory handling of our wheat, but it offers, eventually, the same relief for much of our cotton, tobacco, corn and other agricultural products. Let us unitedly put our shoulders to the wheel and make this important movement what it can become—a corrective of many disadvantages under which our farmers have long labored.

Our disadvantages, our loss of independence and various evils are likely to continue until we can by some such united and successful effort bring the industrial sympathies, energies and products of different States and countries to each other's relief.

Shipment in Sacks.

One more point about our grain shipments from the Pacific coast, and I have done. I found to my surprise that our English neighbors are doing all they can to discourage the shipment of wheat in bulk. They contend most stoutly that it endangers their shipping and the lives of their seamen. While I was there, great pressure was being brought to bear upon Parliament to pass a law prohibiting further shipments to them of grain in bulk. The demand is so urgent that we may as well make up our minds in the Pacific States to continue for an indefinite time our present system of shipping in sacks. Then the sack problem to solve will remain—how to get them cheapest and best? When we ship to our co-operative friends, we can do doubt arrange to have the millions we buy and send over every year returned to us on some satisfactory terms, instead of having them come back as second-hand sacks to be bought by us again at two-thirds of the price we paid for them the year before.

Hoping these facts and figures will appear in your columns printed with the usual accuracy of the RURAL, and promising, if they don't, to write another letter to correct any important mistakes, Yours fraternally.

J. W. A. W.

Greene Springs, Ala., Sept. 19th, 1876.

Grangers' Bank of California.

The annual meeting of stockholders in the Grangers' bank was held on Tuesday, October 10th. About three-fourths of the capital stock was represented by the stockholders in person and a small amount by proxy. The result of the meeting was the re-election of the old board of directors. This action was unusually unanimous, considering that about 18,000 votes were cast, and is a verdict in favor of the conduct of the bank as strong as those most interested could make it. The following compose the board of directors of the bank for the ensuing year:

George Colby, John Lewelling, Thomas McDonnell, J. V. Webster, I. C. Steele, J. C. Merryfield, F. J. Woodward, Thomas Fowler, C. J. Cressey, C. S Abbott, A. D. Logan.

The board of directors had a meeting on Wednesday morning. A dividend of 10 per cent was declared upon the capital stock. The election of officers of the bank was effected, with the following result: C. J. Cressey, president and manager; J. Lewelling, vice-president; J. V. Webster, treasurer; F. A. Cressey, secretary.

The election of this list of officers is but a justification of the confidence which the stockholders expressed in the re-election of the old board of directors. It is a surety of the trustworthiness and strength of the corporation. The election of Mr. Cressey to the presidency and the continuance of his important managing office is at the same time a fitting recognition of his eminent fitness for the position and a deed for the good of the bank, for he is looked upon by all as a man and a financier worthy of trust and confidence. We look upon the Grangers' bank, as it has disclosed its standing by this year's meetings, as an institution which holds well the trust which the Patrons of California place in it. Its sphere of usefulness is great and it has started nobly on its work.

Worthy Lecturer.

As may be learned from our regular report of the meetings of the State Grange, Bro. B. Pilkington, of Santa Cruz, was elected Worthy Lecturer in the place of Bro. J. W. A Wright resigned. The new Lecturer is filled with a sense of the importance of his mission. He is active, earnest and hopeful. We anticipate much good from his work among the Subordinate Granges.

During the meeting of the State Grange the new Worthy Lecturer was the recipient of many invitations to visit the Subordinate Granges. He proposes to make his lectures consist not of rhetoric nor eloquence alone, but will seek to inform himself accurately of the condition and prospects of the Order and the enterprises which it upholds, and on these subjects he will talk frankly and plainly and from a personal knowledge of the things which he presents. Patrons may expect from him a straightforward and business-like talk on all the subjects which just now are of vital importance to the Order.

The matter of the Lecturer's visits depends upon the action of the Subordinate Granges, each for itself. As this is so, the Worthy Lecturer will make his terms so that his efforts can be within the reach of the Granges. All communications for the Worthy Lecturer should be addressed as follows: B. Pilkington, Box 50, Santa Cruz, Cal.

Agricultural Notes.

California.

ALAMEDA.

Pleasanton.—Cor. *Enterprise*, Oct. 7: Our warehouses are as full if not fuller than ever this season. So far, very little grain has been sold, most of our farmers being able to hold their grain until there is an advance in prices. There has been considerable California mustard shipped from here this season—mostly gathered by Chinamen.

Tobacco Culture.—The "frsgrant weed" may become an item of interest in the productiveness of Livermore valley at no very distant date. About an acre of the tobacco plant, well grown and healthy, may be seen on the ranch of Francisco Marcella, upon Dry creek, about three and a half miles from town. Two leaves, messuring 17 by seven inches, were brought to this office this week, and a sample of the dried leaf. Th- former are considered by judges to be fine specimens, and the latter we found to smoke agreeably.

Apples.—Oakland *News*, Oct. 7: A. H. Buehren bas placed on onr table three mammotb apples, picked from a tree in his yard at Center station. The largest measnres 15 inches in circumference, and weighs one and three-eighth pounds. The other two weigh over one pound each and measure 13 inches in circumference. They are fine specimens of what Oakland can do in the way of fruit.

BUTTE.

Bloomsbuay.—*Record*, Sept. 30: This well-known stallion is dead. Years ago, when good horses were rare, Bloomsbury made a name for himself, not only on this coast but all over the country, for his mile and a half heat run in 2:41½. It is true, since tben many horses have beaten his time, but then horses had not developed the wonderful speed that has since been attained. His friends have always contended that, with proper handling, he would have been tbe fastest horse in the world during his prime; bnt through mistaken policy, his trainers were constantly being changed, and the horse never had a fair chance to show the speed that was in him. He had been turned out into Ed. Hallet's pasture and, in some manner, broke his leg above the knee, and it was found necessary to kill him to end his misery.

COLUSA.

Large Fruit.—*Sun*, Sept. 30: Wm. Miller, residing in Washington precinct, on the east side of tbe river, brought to town, one day this week, a lot of apples, some of which measured 14 inches in circumference, and weighed a pound and a half. Geo. H. Douville, wholesale dealer in fruit, *Sun* building, laid on our table a pear of the Duchess de Angeles variety, which weighed a fraction over a pound and a half.

Sold.—We learn that most of the smaller farmers in the upper end of the county have sold their wheat, but have not yet received the money. They sold and placed it on the bank, and were to get pay when it could be shipped, and it has been impossible to get boats to carry off any larger proportion of it, and under the conditions of the sale, we suppose those who bought do not care to hurry up the shipments anv faster than they need it below.

Second Crop Apples.—*Independent*, Oct. 7: Supervisor Koff is just gathering his second crop of harvest apples. After gathering his first crop in the summer, tbe trees blossomed again and now have a second crop of nice apples. They are not quite so large as the first orop, but they are in perfect shape, solid in texture and of excellent flavor. This is the first instance that has come under our knowledge where apple trees have borne two crops of apples the same year.

CONTRA COSTA.

Experience with Somerset Oats—Dr. Strentzel, in Contra Costa *Gazette:* Henry Hollenbeck, of Alhambra valley, who, anxious to raise good oats, availed himself of the benefit of the gratnitous distribution of seed by the Agricultural Department of our country, and from this source obtained, in the year 1874, four and a half pounds of Somerset oats, and sowed them under the usual conditions. The yield from that parcel was 125 ponnds. In 1875 he sowed 115 pounds of said seed on about two acres of land, which produced 4,200 pounds of clear, bright, heavy grain. The present year he seeded 30 acres, and although untimely and ill conducted heading caused a loss estimated at 40 to 50 sacks, he threshed out 49,440 pounds of clear oats, weighing 85 pounds per two-bushel sack.

FRESNO.

Oats.—*Expositor*, Oct. 4: A specimen of oats is on exhibition at the Central California colony which is a fair illustration of what can be done by irrigation. On one root five distinct crops have been produced this season. The first two crops have ripened and the grain has fallen out. The third crop has matured; the fourth is in the milk and the fifth is green and thrifty and about one foot in hight.

Some Squash. — One of Antonio Days' squasbes weighed 73 pounds. The seed which produced this fruit was planted in Jnne. Mr. Days is one of our most successful farmers.

KERN.

Government Land. — *Californian*, Oct. 5: Quite a movement is being made on the lands lying east of the swamp lands in townships 30 and 31, range 28. More than 20 pre-emption claims have been taken up within the past 10 days, and surveys are constantly being made for others. These lands have been neglected as long as tbe Government lands on the north side were vacant, although they were immediately accessible to tbe waters of the Kern Island canal. They lie from five to twelve miles south of Bakersfield. Heretofore the lands on the plains have been avoided by settlers, every one desiring to get witbin the natural water lines of the river. It is all at once seen that the waters of the canal already constructed will flow over the plains, and when one man moves npon them it is the signal for a general rush. There is an immense tract of land on these plains, whioh, though inferior to the island proper, may be made valuable, fertilized by the waters of the river. They offer great inducements to settlers. In no part of California can the same quality of lands be obtained by pre-emption with such easy access to abnndant water. They are capable of sustaining a large population, and just at this time, with the scarcity of similar lands, make up a great want in the State.

LOS ANGELES.

Westminster Notes. — Anaheim *Gazette*, Oct. 7: It pleases us to see an increased tendency here to branch out into stock and hog raising and dairying. Where so much feed can be grown on an acre as with us, this business, properly managed, must prove remunerative. Corn looks splendidly, and Mr. Lamson has a piece which experienced growers predict will yield 150 bushels to the acre. J. H Goldsworthy showed us to-day one of the finest ears of corn we ever saw; it was ten inches long, eight and one-half in circumference and had perfect rows and kernels to the very tip. Reference was made in last week's letter to the hight of Westminster corn. To show it more forcibly, we refer you to Mr. George Oscar, who started from your town for this place, and after wandering a long time between and among corn fields, had to own he was lost in our forests, and to inquire where our stores were and how to get to them. The potato crop is now all planted here, and many fields have put on their spring garment of green again.

Wheat as a Los Angeles Crop.—*Express*, Sept. 30: The indications are that this year we shall have an unusually early and wet winter. We have already had trifling rains in Los Angeles, and our farmers should at once go to plowing. The experience of the last four or five years shows conclusively tbat a crop need never be despaired of, even when the rains are scant, where the ground has been plowed deep before the rainy season begins. We heartily advise our farmers to give less attention to barley and sow more wheat. So profitable has this crop proven in the San Fernando valley that four times the area planted in that cereal last year will be sowed this fall. Even with the present moderate prices (and the price is certain to advance) the crop has proved highly remunerative, and the Messrs. Lankershim & Van Nuys have started the experiment of shipping the grain direct to Liverpool. The success of the first venture will direct attention to our ports, and ships will begin to come here from England, with assorted cargoes, if they can rely upon a cargo of wheat, thus beginning for Los Angeles direct communication with Europe.

NAPA.

Grapes.—*Register*, Oct. 7: J. H. McCord says that Mission grapes are offered in the vicinity of St. Helena, in some cases as low as $5 and $5 per ton.

Eastern Shipment.—The Sacramento *Record-Union* of Oct. 6th mentions the fact that there came to that city from Napa county, by the California Pacific passenger train Sunday night, two car loads of choice grapes, including a score of varieties, one-half of which will be exhibited at the Centennial, while the remainder will be forwarded to New York. The cars were sent to Prosser creek by special train from there yesterday morning, and after taking on the necessary ice tbere, will go East by tbe emigrant train. We are informed that one car was loaded at St. Helena and the other at Oakville, various parties contributing to make up the load.

Hops.—St. Helena *Star*, Sept. 29: The present hop growers of this county are Messrs. A. Clock, Cbas. A. Story, R. F. Montgomery and James Dowdle. These growers have crops this year as follows: A. Clock, 27 acres, 18 tons; C. A. Story, 21 acres, 13 tons; R. F. Montgomery, 12 acres, four and one half tons; J. Dowdle, seven and one-half acres, six tons; or a total for the four yards, this year, of 76½ acres, producing 36½ tons of hops, some of which is held for an expected price of 50 cents per pound. The conclusion must not be jumped at that the gross proceeds of hops—tempting though it may sometimes look—is all profit. The value of land to raise them on is here not less than $200 per acre. A moderate dry-house will cost $2,000 to $3,000; Mr. Clock's, we believe, cost $4,000 to $5,000. A stock of poles for a yard of seven to 20 acres will cost from $1,000 to $2,000, and these are calculated to have to be renewed every five years. Buildings and machinery will depreciate at least five per cent. a year. Mr. Dowdle informs us that his cost of production for current expenses alone is about 11 cents a pound, including freights, commissions, etc., but excluding interest on capital invested or depreciation of stock. It is a fact that out of the eight years of St. Helena's participation in the business, the value of the produot has half the time been below the cost of production.

SAN BERNARDINO.

Rain.—*Argus*, Sept. 29: Wednesday abont noon they had the hardest rain of the season at Colton. The windows of heaven were opened and the rain decended in sheets until tbe water stood in pools. There must have been a heavy rain east of town, as at four o'clock in the evening the Santa Ana was very much swollen.

Tall Tomatoes.—W. H. Ball has shown us some tomato vines that top anything of the kind that we have ever seen. They were standing more than nine feet high—a man cannot reach the tomatoes. We have vines in the county two and three years old.

SAN DIEGO.

Rain Storm.—*Union*, Oct. 5: There was a remarkable rain storm in the Santa Maria valley on Thursday afternoon. At first there was a hurricane of wind, so that the valley became one black mass of dust. The rain afterwards came down in torrents, and a stream of water 100 yards wide poured through the valley. There was a good deal of tbunder and lightning in tbe Ballena section, but it did not rain heavily there. The storm in Santa Maria was one of the most violent ever experienced in the mountains.

SAN LUIS OBISPO.

Splendid Grapes — *Tribune*, Oct. 7: Our table was graced by Mr. L. Landeker, on Thursday last, with a magnificent bunch of Flame Tokay grapes. The size of tbe bunch was nothing extraordinary, but that of the individual grapes was something marvelous. We measured several of them and found them three and one-half inches in circumference the long way, and three inches the other.

Threshing —Mr. H. A. Thomas threshed 35 days in the Santa Maria valley, taking out in tbat time 23,178 sks. of grain, or an average of 662 sks. per day.

SANTA BARBARA.

Early Rain.—Guadalupe *Telegraph*, Sept. 30: Everything denotes the early advent of rain. The fogs have been unnsually heavy and wet of late; the water in the river is running in a stream very large for this season of the year; and heavy-storm looking clouds are frequently in the sky. All these are warnings sent to admonish farmers to be prepared in time for the rainy season.

SONOMA.

Grapes.—*Democrat*, Oct. 7: The Santa Rosa wine company of Santa Rosa having completed their arrangements for the manufacture of wine will be ready on Monday next to receive grapes at $8 per ton in cash or $12 per ton in stock, 25 por cent. of which will be assessable. The manufacturing capacity of the company will be about one hundred tons per day.

Wool —Petaluma *Argus*, Oct. 6: The second shearing of this year is nearly completed in this county. The quality and quantity of wool, we are informed, is fully up to the average of former years.

Healdsburg Winery.—*Flag*, Oct. 5: J. Chambeaud, superintendent of the United Vineyard Proprietors' winery, began receiving and crushing grapes last Tnesday. No more stock can be sold to grape-growers this season, as all the grapes desired have been subscribed. A wing has been added to the main building, and the whole ceiled and lined throughout. The new cooperage is daily expected.

Season's Threshing.—Wm. Ball, of this place, threshed 78 days in Butte county and took out 145,000 bushels, an average of 1,859 bushels per day.

TEHAMA.

Agricultural Banking.— *Tocsin*, Oct. 5: There is an old man residing near Gridley's station, who follows the peaceful occupation of sheep herding for a living. For some time he has been depositing in the bank the sum of $5 per month to the credit of his dog and a mule, of which he is the fortunate possessor, so tbat in case of his suddenly kicking the bucket they would have something to live upon. The other day the dog died, and the mule is sole heir to the estate. He is probably the only mule in the State with a bank account.

VENTURA.

Success with Fruit.—*Signal*, Sept. 30: Five years ago Mr. A. W. Beckwith purchased 81 acres of the Briggs ranch for $50 because it was called poor land. On a portion of that land he planted an orchard four years ago, grubbing up the nndergrowth to make room for the trees. He has now peach trees, grapevines of all varieties, semi-tropical fruit and apple trees in fine condition. A specimen of his peaches was shown at this office a few days since, whicb snrpasses anything we have ever seen. They were large, and resembled the Late Crawford. Mr. Beckwith is in advance of most of those who came here at the same time he did, and has done much to develop the fruit interest. Those who feel doubtful of success should visit the fruit orchard of Mr. Beckwith.

The Society of Pioneers have decided to meet on the 25th instant to consider the question of electing a successor to the late James Lick, prosident of the society.

Two thousand one hundred Californians have been registered at tbe California building from June 15th to October 1st.

The eleventh annual convention of locomotive firemen is being held in Baltimore with closed doors.

The St. Louis fair closed on Saturday, after a very successful week. The receipts were about $70,000.

A dispatch to the *Times* from Constantinople says it is reported that ex-Sultan Murad is dying.

Santa Clara Valley Fair.

The fair in a financial point of view, judging from the attendance, was a success. The weather being pleasant during the week, many came from the country and neighboring cities, who enjoyed the fine display of horses, whose speed was tested upon a track that was everything that could be desired. Among the thoroughbred horses we noticed "St. Elmo," entered by Mr. Seals, and his two-year-old colt—thought by many far the finest upon the ground. Jesse D. Carr's three-year-old stallion, "Vermont, Jr.," came in for his share of admiration, and is certainly a very promising colt. The draft stallion "Cotate," belonging to tbe estate of Thomas S. Page, Sonoma county, successfully carried off the first prize from a number of competitors.

The parade of thoroughbred cattle on Friday, representing some of the best herds in the State, was a most gratifying sight to the admirers of horned cattle. Cyrus Jones had a fine collection from his herd; among those deserving special mention was his celebrated bull, "Mason Duke." Col. Younger had by far the largest collection on tbe ground—all in very best condition, and his bull, "Red Tborndale," came in for his share of admiration. Jessie D. Carr's display was thought by many the choice collection upon the ground. The Page estate entered their celebrated bull "Sonoma," who was awarded the first premium in his class.

The display of sheep and goats in point of numbers was rather a disappointment, although all there were of very fine quality.

The poultry fell far short of our expectations in point of number, bnt otherwise was a very creditable display.

Agricultural implements were not largely shown. The Grange separator manufactured and exhibited by D. McKenzie seems to be just the mill needed for such work as it is intended to do. In separating flax it proves a complete success, as in all else claimed for it. Thus we are informed by a man who has tried it. On the ground we noticed one of Enright's celebrated straw burning engines, certainly a very handsome piece of machinery. The trial of plows during three successive days was a very spirited one. The contest of gang plows between Watkins & Scott, of San Jose, M. C. Hawley & Co., Baker & Hamilton and Frank Bros. & Co., ended by the latter carrying off the first prize. J. C. Bidwell was awarded the first premium on single improved chilled plow.

At the Pavilion.

The display of home industries reflected much credit upon exhibitors. The Angora robe and glove manufacture company exhibit was worthy of all tbe admiration it called forth and would be noticeable at any fair. The capital stock of the company is $50,000. Its board of directors is composed of C. P. Bailey, President and General Manager, J. W. Hinds, Treasnrer, Jackson Lewis, Secretary, and C. H. Lapham and Return Roberts. They have at present 4,000 head of goats, divided into four flocks, three in Monterey county and one in Mariposa county. The rapid growth of this enterprise is remarkable, as is the energy of its management. When the facts are considered of the various uses to whicb the Angora goat is put, (its skin and wool for robes, mats, etc., and its long, glossy fleece for cloths of various textures, and its flesh for food), the success which attends this branch of manufacture is not so marvelous, but it is something which may well fasten the attention of patrons of the fair.

The San Jose fruit packing company displayed a most tempting array of canned fruit. The collection of green fruits, although not large, was one of the finest we ever saw, pears, peaches and apples seemingly having done tbeir best to grow larger than ordinary, purposely for this special occasion. Grapes exhibited by Mr. Feeley require no other notice than tbe following resolntions passed by the board of directors: *Resolved*, By the directors of the Santa Clara Valley agricultural society, that the thanks of this society are due, and are hereby tendered to D. C. Feely, for the magnificent exhibit of grapes made by him at tbe fair. The display stamps him as one of the most successful viniculturists in the State.

In the fine arts we must mention the work of Andrew P. Hill, of Oakland. In addition to his harvest scenes, which were much admired, he exhibited oil paintings of the cow "Sprightly" belonging to Col. Younger, and other stock belonging to Jesse D. Carr and others. These pictures were exceedingly praisewortby.

We cannot close without expressing our condemnation of the thieving gambling games carried on at the grounds, seemingly with the sanction of the board of directors. No institution can prosper that accepts so disgraceful a revenue as one derived from such a source.

George W. Amos, driver of engine No. 4, who was thrown from this seat while going to a fire on Fifth street about ten days ago, and sustained serious injuries, died on Sunday. He was one of the oldest drivers in the paid department.

Striking employees on the Delaware, Lackawanna & Western road still refuse to return to work at the reduotion.

White people have been attacked by a party of Indians near Fort Fettermam.



Out at Sea.

[Written for the RURAL PRESS by PHILMORE.]

The broad, unbounded sea—
The deep, unsounded sea—
What gloomy thoughts it brings;
What sad, sad songs it sings,
As on it rolls.

Far down beneath the waves,
Where the perls, in their caves,
Studded with precious gems,
Crowned with pearly diadems,
Sport and slug.

When old ocean is at rest,
And those upon her breast,
Like little waifs, are cast
Upon the waters vast,
Dark and deep;

There is lonelIness most drear,
Most solemn, most severe,
To those upon the wave,
Who ocean's perils brave
In a ship.

Where no song of ocean's bird
And no ocean's roar is heard;
But silence reigns around,
Most painful, most profound—
Out at sea.

The great waves fall and rise,
Reflecting back the skies;
And the clouds, like funeral pall,
Hang gloomy over all,
In a calm.

Drifting onward—onward still,
Uncontrolled by human skill,
Drooping canvass unconfined,
Waiting, waiting for the wind,
When it blows.

Breezes come from o'er the main,
Fill the flopping sails again,
Now our keel the waters cleaves;
Far behind a track we leave,
O'er the waste.

Nearer, nearer home and rest,
The bird flies homeward to its nest,
The gallant vessel comes at last
Through all the dangers it has past
On the way.

Now the waters smile and dance,
As steady onward they advance,
From the far off, angry deep,
Where the gems of ocean sleep,
Toward the bay.

The great waves roll and surge,
As they hasten towards the verge
Where the rugged cliff confines,
And the angry storm king binds
With his might.

The dying surf upon the shore—
Is it lost forever more,
When it meets the welcome land
And it settles in the sand
On the beach?

Does their music ever cease?
Can their beauty still increase,
With the morning sun aglow
On the waters far below,
Where it shines?

Look upon the silvery sheen,
As, beneath the night's pale queen,
The rippling waters gently glide,
As softly o'er the flowing tide,
She spreads her veil.

Raising and Training Stock, Human and Otherwise.

(Written for the PRESS by EDWARD BERWICK.)

With your permission I propose to follow the method that the negro "banjoist's" pupil proposed to his teacher, and take the last lesson in our course (with the pupil the cheapest,) first.

To commence, then, with the "otherwise."

No sane man who proposes to enter business as a stock raiser and trainer—be it stock for the nursery (not human), for locomotion, for the dairy, or for the shambles—ever enters on his work without a pretty good idea of the purpose for which he is raising his stock, and the method he intends pursuing to ensure the success he aims to attain.

Take for example a farmer who is engaged in breeding and rearing horses. To be successful, what care he must take in selecting sound parent stock from which to obtain colts. Whatever he specially desires to see in his colts, qualities of speed, endurance, power or what not, must first be found in the parent stock. He is fully aware that "like begets like."

When the colts are born how carefully he tends them, handles them gently, speaks to them kindly, gradually accustoms them to restraint, develops by training and exercising those qualities which he expects will prove of most value in the full-grown quadruped, and thus the animal on arriving at maturity is capable of doing its work with the maximum of ease to itself and the minimum of controlling effort on the part of its owner.

Let these same colts grow to maturity running wild in the hills. They would not be fairly described as untamable, for "every beast is tamed and hath been tamed of mankind," but how hazardous, laborious and unsatisfactory the work of taming them is, how liable the old wild, restive nature to break out, with all its former antipathy to control.

The experience of dairymen, nurserymen, and of the men who attend to all other branches of stock raising included in the "otherwise," is entirely corroboratory of the horseman's experience. It is needless, then, to record them here. What lesson can we now derive from the experience of those engaged in raising specimens of

Humanity

And training them. The extract from the New York *Tribune* contained in your last weeks' issue on "Training Children," is the immediate spur that impels me to make my contribution to the literature of the subject.

In the first place, then, how much less sanity we exercise in considering the nature of the offspring that may result from our own marriages than we display in perpetuating good traits in the brutes.

Happily the All-wise has implanted in us an inherent love of the beautiful, and in spite of all meaner considerations that influence us, beauty still attracts, though probably with small thought of its being as precious an heirloom as broad acres—nay, more precious!

Let me define somewhat my idea of

Beauty.

Not a mere doll-like, insipid regularity of expressionless features, crowned with never-such golden hair, or with the vacant forehead hid by wanton curls of "lunatic fringe." By-the-by, how is it that when one woman, to hide a deformity of nature, invents a monstrosity of art to cover her hideous neck, every other woman must cover that most graceful part of her bust with a similar monstrosity; or when one over-modest empress introduces another disfigurement to disguise the indisguisable, every matron and maid must needs match her over-modesty in rotundity of skirt, and now that some beetle-browed idiot endeavors to screen her idiocy with wanton locks, it appears that fashion demands all womankind to join the "lunatic fringe alliance."

No such "building up" makes beauty. Any marriage founded on such short-enduring allurements will hardly yield a superstructure of life-enduring happiness.

He who caused a love of beauty to be a ruling force in youth, also caused real beauty to lie more in the expression of the mind and character in the features than in their being cast in any set mold.

According even to so well accredited a voluptuary as Byron, personal vanity is incompatible with real beauty.

"To know her beauty would half undo it,"

He says.

To my eye the predominant ill temper lurking in the nether lips has, before now, broken the charm of a handsome face. Moreover, Shakespeare's "shrew" was distractingly beautiful, but just a little vixenish notwithstanding. I will fix upon Wordsworth's "Phantom of Delight" as my standard.

"A countenance in which did meet
Sweet records, promises as sweet;
* * * * and bright
With something of an angel light."

But how frequently we pass by even the natural desire for beauty, and indulge an unnatural thirst for lucre; well does the poet curse the slight to nature:

"Cursed be the social wants that sin against the strength of youth!
Cursed be the social lies that warp us from the living truth!
Cursed be the sickly forms that err from honest Nature's rule!
Cursed be the gold that gilds the straitened forehead of the fool!"

Alas that cupidity should have invaded even the domain sacred to Cupid! Cupid that "was a god but is a lawyer's clerk!"

An old friend of my youth used to advise his young acquaintances whom he presumed to be contemplating matrimony, to mind, not their own p's and q's, but the m's and p's of their proposed spouses. The m's and p's were in the following order: Mind, manners, person and property.

I don't presume to give any list of requisite qualifications; each must judge of what he or she wants for himself or herself. The point I wish to press is, that all who contemplate entering on connubial arrangements should give at least as much forethought to what kind of offspring will result from their union, as they would give to the resulting increase from mating their brute stock. Think of your future partner in the character of a parent to your children, even more than as a companion to yourself. No matter how exceptionally tender your particular passion as a lover may be, after matrimony the romance of the thing wears off, and the responsibilities of parentage are the facts that will stare you in the face; and your life will be one of happiness or misery as you meet well or ill those responsibilities. You may ignore the fact for years, and neglect your children, except in such compulsory matters as regard their sustenance; but for ignoring and neglecting them when young, you will pay a fearful penalty when they attain an age at which it is impossible for you to continue so culpable a course.

Of one thing I am quite sure, that to ensure happiness in marriage there must be perfect frankness and openness, on both sides, before the event. "Concealment, like a worm in the bud," will nip your connubial felicity. Skeletons in closets are ugly under any circumstances, doubly ugly when your partner is continually passing the door, and may light on the key any moment. No "undeniable whiskers," or "lunatic fringe" are worth possessing if accompanied by some sword of Damocles, impending over your head and hanging by a single hair. Moreover, no true, love but must be indignant at having been deceived, and true love has no occasion to deceive. "Perfect love casteth out fear;" and fear is always the ruling motive for deceit.

One more point and I'll wind up this part of my subject. An old bachelor friend of mine, (by the by, how is it bachelers are always so much more gallant than married men?) whenever we get up a chat about matrimony, always states to me his very laudable conviction that courtship ends where it really ought to begin. Lovers who were dying and sighing for each other's society, suddenly, after marriage, find quite a chill come over their ardor. The fact is they are now become members of the same family and think there is no need of putting on those "company manners" which proved so mutually charming during the pre-honeymoon period. But my bachelor friend is right, and lovers should continue lovers even after they have become "one flesh."

Before your next issue I will endeavor to send you a continuation of my subject—the training of human live stock. I trust my remarks on so delicate, so important and so rarely handled a subject have in no wise exceeded the bounds of propriety. It seems to me that much mischief is wrought for lack of a little plain speaking on this and kindred subjects.

I should be somewhat ungracious did I conclude without thanking Mr. Ashburner for his letters on "Mangold Growing." I am following his advice, at least partially, and am having a piece of land heavily manured for a mangold crop next season.

Force of Habits.

It was a quaint and singularly wise remark, by a modern essayist, that no one's example is so dangerous to us as our own. For when we have done a certain thing once, it is so much easier to do it again. It is the first step which counts in evil, as well as in good. The tendency of human nature to form habits, to run in grooves, is one of its most marked characteristics. Fortunately for us, it has its good side as well as its bad side. If we can only too easily form a habit of petulance, of ill-temper, we can also, by trying, form a habit of self-control; and each fresh victory over ourselves is easier than the first. A habit of application is, it would be safe to say, of as much importance to almost any great man as is his genius. Not that any amount of application can make a dull man brilliant; but that without steady application a brilliant man might almost as well be dull as far as anything that he is likely to accomplish is concerned. "Perseverance is genius," several great men have said, in slightly varying phrase; but this is not true. Perseverance is only the right hand of genius. Something is breathed into a man at his first birth—a divine fire, a gift of the gods—which makes great things possible to him, while to his brother in the next cradle they would be impossible forever. But, having received this divine fire, he must give it fuel. It is the sign that he must work more, and not less, than his fellows; and so there is no one thing so remarkable in the history of almost all our great men as their habits of prodigious application.

A SORROWFUL SPECTACLE.—Last evening, about 11:30 o'clock, officers Wampach and Patton discovered lying on the damp grass in St. James square, a woman in a drunken sleep; and by her side, with scarcely any protection from the chilly night air, an infant hardly one year old. The woman was aroused after considerable effort, and with the child, too benumbed to cry, was taken to the calaboose. Policemen in general, from the very nature of their calling, are not easily affected by scenes of woe or degradation, but that sight—the picture of the shameless, miserable, drunken mother and the innocent babe in such a place, at such a time and under such surroundings—was more than they could stand unmoved. The little one was tenderly cared for, and as the woman had not been lying down but a short time, no injurious results may follow. The probabilities are that had not assistance arrived during the night, the infant would have been a corpse by morning. After her arrival at the city hall, the woman showed her appreciation of the kindness done by the most fearful blasphemy. She seemed utterly lost to all feelings of decency and evinced not the slightest shame for her most wretched position. Her case furnishes food for a dozen temperance sermons. Who she is and where she came from is not known.—*San Jose Mercury.*

How sacred, how beautiful is the feeling of affection in pure and guileless bosoms! The proud may sneer at it, the fashionable may call it fable; the selfish and dissipated may affect to despise it, but the holy passion is surely of heaven, and is made evil by the corruption of those whom it was sent to bless and preserve.

A BLACKSMITH, having been slandered, was advised to apply to the courts for redress. He replied, with true wisdom. "I shall never sue anybody for slander. I can go into my shop and work out a better character in six months than I could get in a court-house in a year!"

Thoughts for Young Men.

Why is it that the college graduate so often feels distressed for want of successful career? The reason is a general one, affecting not the educated alone, but society at large. Downright hard work has not been held in rightful estimation—it is one of the facts of human nature. Men love ease and shake hard work. Look at the whole drift so strong and long from country to city, leaving off farming and mechanical employments for traffic—this is one great evil of American life. A young man much prefers to be a "counter-jumper," even with poor prospects of wealth, to working in the dye-room or on a farm. These are the reasons for this love of city life; but the main reason, with young men who seek clerkships, is a preference for light labor to heavy; it is esteemed more gentlemanly to be a clerk than a farmer or mechanic. Of course, some graduates are affected with these false notions to a certain extent. They show the feeling of the community. But this is a great mistake; college graduates have, as a class, had no right to count themselves out of the severer employments. The need of some labor has been upon nearly all of them; and in choosing their labor they have narrowed the field of choice. The dignity of all honest labor should have been apparent to the most cultivated class. Whoever has looked down upon it, has done so at the expense of his manhood. Whoever has shrunk from toil confesses a lack of his bodily powers. College graduates sometimes ask for positions for which in their career they have become entirely unsuited; but this unfitness proves nothing at all against the general proposition that culture is good for all; but culture cannot override all obstacles. The only harm culture can do is to give a person a false pride or hope. Those who are educated must learn to avoid this danger. Education pays; force of intellect will pretty certainly tell in the great strife of money-getting. And by all nobler considerations the educated man is lifted immensely above his former uneducated self. He has new resources and powers, new gratifications, all of which, if he had not a farthing he would not exchange for heaps of money.—*Prof. Martin Kellogg.*

Good Resolutions.

Persons of gentle and yielding dispositions are startled when they come in contact with a rugged nature and iron will. For there are these giants of humanity who shape their resolves as the furnace and trip hammer shape masses of metal. They bear down all opposition, compelling weaker spirits into compliance. Yet the power and tenacity of purpose that surprise temperaments of a finer and frailer mold do not belong exclusively to the bold and the great, for even the most unobtrusive persons are capable of it at times. It is a trait of character in men to form their resolutions with fervor and impetuosity; but the milder and quieter spirit of woman comes silently and almost unconsciously to determinations that are not shaken or altered by the wear and tear of even a whole lifetime. Man is gifted with strength, woman with endurance. The difficulty for dispositions of average power and perseverance is found, not so much in coming to a resolution of sufficient intensity, but in keeping it for any length of time. The smooth water of an Alpine fountain may be frozen into a mass as hard, apparently, as glass, but the hot rays of summer soften it until it yields gradually, and at length finally melts away altogether. Bad habits take a long time to form, and they cannot be thrown off without exertion. The good habit which replaces them can only be formed by a repetition of good acts. Drops of water falling from the roof of a cave, form, in the course of time, a stalactite, bright and strong to behold. The process, though, of this wonderful formation is slow and barely perceptible. So do single small acts of our will form themselves by repetition into lasting and unshaken habits.

TAKE COUNSEL WITH YOURSELF.—Young men cannot estimate too highly the advice of parents and friends. It affords them the benefit of experience, and is given from sincere solicitude for their welfare. It should be remembered, and weighed and acted upon. But, after all, every man has his own individual existence; he has his own life to live, for which he alone is accountable. He should derive all the benefit he can from the counsel of those older and wiser than himself. Then he should sit down and meditate by himself, and make up his own mind as to the course he wishes to pursue in the world. Having done this he should enter upon the execution of his plans with a determination to accomplish what he undertakes without reference to the opinions of others. No man is of any real account in the world unless he is something in and of himself. No man possesses real strength if he cannot, after having heard all that others have to say, resolve, and resolve firmly, what to do, and carry his resolution into effect. Take counsel of others; profit by their experience and wisdom; but, above all, take counsel with yourself; make up your own mind what to do in this world, and—do it!

THE last, best fruit which comes to late perfection, even in the kindliest soul, is tenderness towards the hard, forbearance towards the overbearing, warmth of heart towards the cold, and philanthropy towards the misanthropic.

Our Parlors.

Under this title we find an excellent little sketch in *Arthur's Home Magazine*, and reproduce it here. The fashion of having a "fine room," which may not be used by the members of the family, lest the pretty things in it should be injured or soiled, is one which thoroughly deserves the sarcasm which gleams in every sentence of Mrs. Bell's story. What home is worth the having that can not be used in its every part.

"Now, pa, don't go in there, with your old, dirty clothes on. I've just got it cleaned, and I don't want the carpet soiled and the room all mussed up for nothing!"

"Pa," as Mrs. Fowler called her husband, stopped on the threshold, and looked for a moment across upon the forbidden ground; then, with a sigh, turned away, passed out and took a seat on a wooden chair in one corner of the old, dingy kitchen.

He had spent nearly a quarter of an hour brushing and cleaning up before he dared venture to even go into the sitting room, and thought he would just step into the parlor and try that new easy chair he brought from town last week, and hear Jennie play on the piano he sacrificed so much to buy for her. He seldom if ever heard it any nearer than the kitchen, and there he sat now, thinking and wondering. He toiled and worked hard all day on his broad acres, and for what? To earn a corner of the poorest room in his own house, a wooden chair to sit upon! He used to enjoy himself when they had but one room, and all sat together of an evening. But the wife and daughter had outgrown and outlived those old and primitive ways and those old-fashioned days, and the consequence was, the parlor was too nice for "pa" to enter, unless, indeed, when the stove had to be moved, or the whitewashing done, or the carpet taken up and dragged out once every year. And he sometimes found himself wondering if there were not a bit of reason in the question little four-year-old Freddy asked him one day.

"Pa, will they have nice rosy carpets, and soft chairs, and lace curtains up in heaven?"

"I hope not, child. Why do you ask?"

"Because I was thinking, papa, maybe they wouldn't let you and me in, you know."

But how many homes there are all over our land, where the proper head of the family, the one whose money buys all the fine things, the one who toils to earn them, rarely is permitted to enjoy them. How often do the dear, tired feet walk across the velvet roses on the new carpet, to purchase which they have, perhaps, plodded many a mile, uphill and down, behind the plow?

How many times a year, in such households, does the weary head, over which the silver threads are beginning to creep, lean back, in quiet, restful peace, against the cushions of those easy chairs? and yet, there they stand for —somebody.

Perhaps the buying of them made some of those same silver threads steal in among the dark locks, for the brow was wrinkled in deep, earnest thought for weeks, planning how to afford the means to buy just those same easy chairs. But wife and daughter said "*must*" and so they were purchased.

Oh, dear women! don't shut up your parlors. Don't, after you have cleaned and repapered and put up your prettiest pictures and brackets and ornaments, and have stood back and looked all around, and thought how such a painting would look to Mr. So-and-so, or such a piece of furniture would set Mrs. Not-overwise raging with envy. Don't, I say, give a satisfied nod, and then go 'round to each window and slam shut the blinds, and close up every chink where the least ray of sunlight can peep in, and go off in the little, heated back room and sit down, tired and warm and exhausted, and imagine you have done your duty. No, don't do it, dear, whoever you are, wherever your home is; but open the windows —don't be afraid of a little sunshine. Of course, nobody wants her best carpet all faded out by the glaring noonday sun. To enjoy the sunshine, it isn't necessary to broil in it, but let in enough once in a while to take away that gloomy, chilly, parlor-y atmosphere that is so often found in this one best (oftener worst) room in the house. Let in a laughing sunbeam once in a while, and see how much prettier the roses on the carpet will blush, and how the pale photograph faces will brighten in their walnut frames, and almost seem to nod a pleasant "thank you" for the cheering ray of outdoor beauty. And when you arrange your rooms, instead of trying to excite emulation in those who come and sit, perhaps, ten minutes with you twice a year—ruffled and puffed and furbelowed and crimped and curled and kid-gloved—think lovingly of the dear ones at home, and of their comfort and happiness. Think, "Now I'll put this easy chair here by this pleasantest window, where the rose-bush grows, for father will like to sit here after he comes in at evening; and this footstool for little Jennie at his feet; and this pretty picture of little Nellie, who went to heaven a two-year-old baby, shall hang right here, low down, where grandma can see it, for she was grandma's pet; and the stand and the bracket that Charlie made shall be here in this corner, for though they are a little rough, yet the dear boy-hands made them for mamma's birth-day present. And so weave love into every nook and corner, and you'll never want to shut it up —your best room, your parlor—and only open it to outsiders.

Young Folks' Column.

Did Tot Go?

"Where are you going?" asked the conductor, as he held out his hand.

"I'm going to the Centennial to find my mamma," said Tot, curling up in one corner of the seat.

"Where's your ticket?"

"Mamma didn't give me any," answered Tot. "She told me to stay at home like a good little girl, but I couldn't be like a good little girl any longer. My papa will pay, I know, when I find him."

When the cars stopped at Philadelphia, Tot followed the crowd that streamed along to the Centennial buildings, and, as the man at the gate didn't charge her anything, I suppose he must have thought she belonged to somebody else who did pay.

"It's lucky I know my mamma first-rate," said Tot to herself, "or I shouldn't find her among so many other mammas."

By and by Tot came to a beautiful shiny counter where there was nothing but big dolls, all dressed up, with real dresses made on a machine, and eyes that winked just like her own.

In one corner was one more splendid than all the rest. She was in a glass case, and had earrings in her ears and a truly diamond ring on her finger. She was just exactly as tall as Tot herself.

"Isn't she just beautiful?" said a tall policeman with brass buttons.

"Good enough to eat," said Tot smacking her lips and clasping her hands.

"Can't you give away this doll," asked the policeman of the young lady who stood behind the counter.

"Oh, yes," said the young lady.

"What! without any money at all?" said Tot, with her blue eyes open very wide.

"Certainly," said the young lady.

So they took off the glass case, and after kissing the policeman twice, and the young lady three times, away Tot marched with her doll, which was so tall that Tot had to walk on tip-toe to keep the doll's feet off the floor.

Pretty soon Tot got so tired that it seemed as if she must stop.

"Here, let me carry you."

Tot looked all about. Who could it have been! It was the doll! And she wiggled down from Tot's arms, and marched off two or three steps to show how well she could walk. Then back she came and taking Tot around the waist she took her up just as comfortably as ever mamma took you, and on dolly's shoulder poor, tired Tot's head fell lower and lower, and the great building full of pretty things faded gently away, and Tot slept. She dreamed that as they marched along all the policemen took off their hats and the people clapped their hands and got out of the way—all but a little boy who had a big black goat harnessed to a wagon. He kept driving in front of them all the time. The policemen shouted but it didn't make any difference, and at last the dolly stubbed her toe and tumbled bang on the boy's head, and poor little Tot was thrown away over the wagon on to the goat's back, and the goat stood on his hind legs and danced all about, while Tot clung on by his neck. The policemen, you know, were all standing in a long row, and the goat rushed at the first one and knocked him over on to the second, and they all tumbled down like a row of blocks, and cried and asked for their mammas, and just as one got up to knock the goat with his club, Tot was thrown right through a big looking-glass, and opened her eyes to find herself rolling down the three steps which lead from the nursery to mamma's room in her own home.

"How could you tumble out of your trundle bed," said Maggie, the nurse.

"I've been to the Centennial," said Tot, "and oh dear, if it hadn't been for that awful boy with the goat, I should have been there this very minute."—*N. Y. Tribune, Jr.*

Freaks of a Baby Elephant.

Recently while a circus was in Virginia City, the baby elephant broke loose and after running about in the Chinese quarter rushed into a Chinese gambling house. The place is a sort of a cellar, entered by a narrow incline from the street. When the young elephant entered the gambling house the Chinamen suspended their game with one accord and sought their bunks for safety. In the bunks were a number of opium smokers, and the intruder, apparently attracted by the smell, poked his trunk about in the bunks and snuffed up the fragrance of the pipe, to the horror of the Chinamen, who began to pray in the jargon of their race and invoke the protection of special deities. After a while, they found that the little elephant was perfectly harmless, and tried to eject him, but without avail. Presently there was a commotion at the entrance and the mother was discovered attempting to force her way through the narrow passage, which being bounded by solid earth at the sides resisted her efforts. Finding the passage too small the elephant began tearing down the sides, making the boards fly at a lively rate and filling the place with dust. The Chinamen, with remarkable presence of mind, saw the baby elephant was the sole cause of the other wishing to enter, and accordingly, by a united effort and by belaboring it with sticks and thrusting sharp instruments into its hide, they drove it to the entrance, within reach of the old one's trunk. Taking a half hitch around the little elephant's fore leg, the fond mother yanked it out of the cellar without the least trouble. But the baby elephant was a spoiled child and evinced a determination not to go home. Finally the old one flung her flexible old trunk around the baby's middle and lifting him clear of the ground marched deliberately back to the tent. Both animals were then securely chained and there was no more trouble. The keeper says that young elephants are very fond of opium, and it is sometimes used to keep them quiet.

Good Health.

A Generation on the March.

A recent English magazine gives the following interesting summary of statistics concerning the life and death of a generation of people:

An English generation on the march from the cradle to the grave is an instructive spectacle. Let us trace the physical fortune which any million of us may reasonably expect. The number, to begin with, is made up of 511,745 boys and 488,255 girls, a disproportion which, by and by, will be redressed by the undue mortality of the boys, and will be reversed before the close of the strange, eventful history. More than a quarter of these children will die before they are five years old—in exact numbers, 141,387 boys and 121,795 girls. The two sexes are now nearly on a level. The next five years will be much less fatal. In the succeeding five years, from 10 to 15, the mortality will be still further reduced. Indeed, for both sexes this is the most healthy period of life; the death-rate, however, is lower for boys than for girls. There will be some advance in deaths in the next five years and still more in the five which follow, but 634,045 will certainly enter on their 26th year. Before the next ten years are at an end, two-thirds of the women will have married. The deaths during that period will be 62,052, and of these no fewer than 27,134 will be caused by consumption. Between 35 and 45, a still larger "death-toll" will be paid, and little more than half the original band—in exact numbers, 502,915—will enter on their forty sixth year. Each succeeding decade, up to 75, will now become more fatal, and the numbers will shrink terribly. At 75 only 161,124 will remain to be struck down, and of these 122,559 will have perished by the 85th year of their march. The 38,565 that remained will soon lay down their burdens; but 2,153 of them will struggle on to be 95, and 223 to be 100 years old. Finally, in the 108th year of the course, the last solitary life will flicker out. Such, then, is the average lot of 1,000,000 English men and women.

THE APPLE CURE.—The apple cure is the use of apples as food, on the same principle that grapes are used. The cure by apples might be equally popular if introduced. Who has an orchard where it can be tried? The scenery and surroundings should be good. A writer in the *Laws of Life*, for June, states that after being troubled with heartburn, wakefulness, indigestion, etc., he adopted the practice of eating apples with each meal, daily. The wakefulness and heartburn are gone. He is cured. When he began he weighed 130 pounds. Two months later he had increased to 160 pounds, his strength being similarly increased. Instead of "bitters for the stomach, cathartics for the bowels, iron for the blood," all of which weaken the vital organs and give a relief that is only temporary, apples are a natural stimulant. Apples, like medicine, induce a sustained healthy action of all the organs. Apples are, besides, very nutritive, and rightly termed the "bread of fruit."

ALLOYS OF TIN AND LEAD.—Dr. Knapp, of Brunswick, Germany, has been investigating the use of these alloys for culinary purposes. He has studied their behavior with distilled water, vinegar and ordinary salt solution; and corrects the idea that the mere proportion of mixture of the metals or the chemical constitution *per se*, is decisive as to the behavior of the alloys. There are at least two other important points to be considered, namely, the mechanical nature of the surface of the metal and the nature of the attacking substance. To these may be added the joint action of atmospheric air, the time the metal has been attacked and the temperature. One alloy, A, with an equal amount of tin, contained nine times more lead than another alloy, B, but gave up, with vinegar, not nine times but nearly 26 times more lead. With ordinary salt solution, on the other hand, B lost over 21 times more lead than A. In diluted water, also, A resisted both.

SUNSHINE.—The world wants more sunshine in its disposition, in its business, in its charities, in its theology. For ten thousand of the aches and pains and irritations of men and women we recommend sunshine. It soothes better than morphine; it stimulates better than champagne; it is the best plaster for a wound. The Good Samaritan poured out into the fallen traveler's gash more of this than of oil. Florence Nightingale used it on the Crimean battlefields. Take it into all the alleys, on board of all the ships, by all the sick beds. Not a phial full, not a cupful, not a decanter full, but a soul full. It is good for spleen, for liver complaint, for neuralgia, for rheumatism, for falling fortunes, for melancholy. Perhaps heaven itself is only more sunshine.

Domestic Economy.

Pies.

Pies are wholesome or not as they are well or badly made. An apple pie can be so prepared as to be nearly or quite as simple as bread, butter and apple sauce. A whole meal may be made of it without injury to the health. On the other hand, it may be so prepared as to be unfit for the stomach of even a rhinoceros. The model pie is in our opinion the apple pie. Peach pies are highly relished by many; but the peach loses its finest flavor by cooking, whereas the apple is improved by this process. Most of the berries in their season make good pies. So does rice and eggs, and the custard pie is not only delicious but wholesome. Meat mince pies are not to be tolerated by delicate people, though they may be eaten by men of strong digestion, who live much in the open air and do muscular work. The first point to be secured in a pie is good crust. In general terms, this should be thin and, when well baked, tender. It should not be shortened with lard, but the best of cream—or in the absence of this, good butter. Delicate fruits are soon tainted with the shortening of the crust. Many, in baking pies, use too much crust. The less that can be used, the better the pie will be. The crust should be thin, the fruit good pie-apples and plenty of them put between the crust. Where the two crusts meet on the edge of the dish, care should be taken to have the apples pressed out, so that there shall not be a wide strip of thick crust with no apples near them. An apple pie should be eaten just after it is cool. If eaten while hot, it is apt to go down only half masticated, and the effect of the heat on the tongue tends to destroy the finer sense of taste. After an apple pie is one day old it begins to grow stale, unless it is kept with great care. Soyer, the famous London pie-maker, thinks that if all the spoilt pies made in London on one single Sunday were placed in a row beside a railway, it would take an express train an hour to pass them in review. Whoever will induce bakers to improve their methods of making them, will be a public benefactor. The usual price for a piece of pie in a restaurant is 10 cents. They could be afforded for half the price, at a profit too, if there were no spoiled pies.

Indian or Mixed Pickles.

Break up into small sprigs two or three fine heads of cauliflower; slice fine three large cabbage heads, using only the white leaves; slice or chop four large green peppers and one or two sizable roots of horseradish; cut up, in lengths of an inch, one quart of tender green bean pods; slice thin two quarts of small green tomatoes; add to these half a peck of tender martynia pods. Turn over the whole mixture boiling brine, made with one and a half pints of salt to each gallon of water. Let them stand until the next morning. Drain through a sieve or colander for two hours; sprinkle over them a quarter of a pound of black and the same weight of white mustard seed. Put the whole into a preserving kettle, with just enough vinegar to cover it, and let it boil from five to ten minutes—one good boil up is sufficient to soften the whole mass. Drain again, and when cold, mix up one-fourth of a pint of ground mustard and three tablespoonfuls of turmeric in cold vinegar, and stir into it. Then put into a jar and cover the whole with cold vinegar. A dozen or two of chopped onions—or three or four quarts of small onions, will be an addition for those of our readers who like the flavoring. This pickle will keep for years, if bits of sliced horseradish root are placed over the tops of the jars, as they prevent the formation of mold.

Canteloupe Pickles.

Take not over-ripe canteloupes, wash, cut open and remove their seeds; pare off the rind, and cut into small slices. Cover with vinegar for 24 hours. Drain through a sieve, and for every dozen of melons allow three pounds of white sugar, three ounces of stick cinnamon, and two ounces of whole allspice. Add to the vinegar, and boil the whole. Put in the fruit, boil it until transparent. Take it out, and boil the syrup for 10 or 15 minutes. Pour boiling hot over the fruit. Do not add the spices until the sugar and vinegar have been boiled up and skimmed well.—*Country Gentleman.*

Pie-Melon Pie.

EDITORS PRESS:—Can you give your subscribers a recipe for making pies, of what is known as pie-melon? —A. J., Santa Barbara, Cal.

Mrs. Hill's new cook book says: Peel the fruit and cut out all the seed part; cut in slices about a quarter of an inch thick; scald them; put them in a stew pan and cover with cold water, in which has been dissolved enough of tartaric acid to make it pleasantly sour. When the fruit is tender, sweeten it to taste and bake between two crusts. A little grated lemon peel may be added if liked.

Dressing Birds.

EDITORS PRESS:—Will some of the readers of the Press give in its columns the method of killing and preparing birds for stuffing? Please give the directions so that a lady can follow them.—Mrs. A. M. D., Colusa, Cal.

We hope some of our lady correspondents will write us in answer to this query.

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No SUBSCRIPTIONS will be received at less than four dollars a year, except in clubs of five or more, or through club or Grange agents who have sent five or more subscriptions during the year.

Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, October 14, 1876.

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The Week.

The season has fairly changed. The thresher revels in his earnings and the grain sacks are dust-covered in the fields and still many are awaiting movement. The pickers and packers of the orchard have done their heaviest labors. Bales of hops and the fall clip of wool lie side by side in the city store-houses. All these have passed the stage of production and have entered the domain of commerce. Now the activity is ceaseless in the vintage and raisin making. The wine flows in streams from a thousand presses, great and small. Raisins already approach the market in the shape of tons. The week has seen the in-coming of the finest jewels of California raisins. They come in uniform boxes. They nestle in layers of even weight. They are covered in with a blanket of the whitest paper bearing a colored vineyard scene. The laps of paper on each side bear the well known name of the maker and his residence. These are the surety for the sale of California raisins. Delicious fruit thus handsomely encased and adorned will soon turn the Spanish product from our shores and California will be the Malaga of our country. This is scored another notch in the progress of our State. Let our whole raisin product take the quality and beauty of package which those have which we have seen from Woodland, and we shall find California ruling in the architecture of old England's plum puddings and the thumb of every Jack Horner in the East will bring a California raisin to the light.

PLOWS.—We call attention to the advertisement of M. C. Hawley & Co., in this issue. The Deere gang plow, because of its success in the field, is worthy the attention of all who have land to turn.

Wheat in England,

The cable price for wheat rises again. The range as now given is: 10s 1d and 10s 4d for average California and 10s 5d and 10s 8d for club. The equivalent rate in our money, counting freight at £3, is: $1.67½ and $1.72½ for average California and $1.75 and $1.82½ for club. The best sales of which we have information in this market have been at $1.65, so it may be seen that the price offered here is still far behind its equivalent rate according to cable quotations and freights. The telegraphed report from Mark Lane, which we print in our market review, gives notice that all the contingencies which have been counted upon as likely to advance the price of wheat are still in force and the outlook is apparently all that holders could desire.

We have some information concerning the disposition of the English wheat growers which is interesting to our farmers. There is every indication of a constantly increasing need for foreign wheat in the English markets. The low prices which have prevailed are driving the cereal from the English fields more and more each year. The latest returns of the agricultural statistics of Great Britain show that the decrease of the wheat acreage of 1876 from the acreage of 1875 is 337,523 acres, or a decrease of 10.4 per cent. The decrease of 1876 from 1874 is 17.5 per cent. This shows a decrease of nearly one-fifth of the whole wheat acreage of the kingdom in the short space of two years.

The disposition to cut out wheat from the rotation which prevails in English farm policy is forcibly depicted in the following words, which we find in the latest issue of the London *Agricultural Gazette*:

"Now that wheat sowing is about to occupy our attention, the question is forced upon us—will it pay? A great authority wrote as follows: 'It is commonly said that a farmer can not thrive who, for want of money, is obliged to sell his wheat under 5s a bushel' (8s 4d per cental). Also, 'the mean price of wheat between dear and cheap is reckoned 5s a buahel.'

"This opinion as to the minimum price at which wheat might be sold at advantage was penned by Jethrow Tull 150 years since or thereabouts! The imperial averages for the present year for February and March gave 42s to 43s as the average price of wheat, and we may therefore conclude that a good deal changed hands last spring at the same price that it did about the year 1730-40. Not to go so far back in the annals of prices, we know that 5s a bushel has been considered for two generations an unremunerative price.

"But the prices of horse and manual labor have increased immensely during the last eight years. In 1868 the cost of plowing might be fairly reckoned at 8s to 10s per acre, and now it is 12s to 15s. All other tillage operations are similarly increased in cost, and yet the producer of wheat cannot, like the baker, raise the price of his bushel. The case is simply this: with every expense increased, and with the standard of comfortable living raised (for farmers no longer live in the kitchen and feed with their laborers), the produce remains the same price. Wheat growing under these circumstances cannot pay, and although a certain breadth must be sown, in accordance with the usual method of cropping, it is clear that the farmer must look to other commodities for profit. At the same time, it appears absurd that so large a proportion of our lands should be doomed to profitless cultivation. No wonder there is a general disposition to lay land to grass. Look at the price of hay, of beef and mutton, and butter! Cheese, indeed, is exceptionably low; but then look at the cost of tillage, and ask if those stiff soils good for wheat, and also good for grass, should not be seeded down in the best fashion possible. The question appears capable of only one solution, unless any one can point out a plan for cheapening tillage or increasing the yield per acre."

THE DAIRY ASSOCIATION.—The members of the Dairymen's Association met according to announcement and the meetings were continued through parts of two days. We begin in our Dairy department this week the publication of the proceedings of the sessions, and shall continue them, giving all the papers which were presented and an outline of the discussions which the papers elicited. The meeting, although far less in point of numbers than the friends of the movement had hoped, was on the whole very encouraging. The interest and spirit manifested were as strong as could be desired. The correspondence which the secretary presented showed that the interest had spread wider than the attendance at the meeting, and next year there may be expected fuller benches. We ask our dairy readers to read the proceedings as we shall print them and write to us freely when any points of their experience or observation will throw more light upon the subjects under discussion.

OUR MARKET REPORTS.—At the late dairymen's convention in this city Mr. I. C. Steele, the well known dairyman, said in the course of a speech: "There is but one paper in San Francisco and, so far as I know, in the State, to which the farmer can look for correct reports of the prices of farm produce, and that is the RURAL PRESS."

A Scaly Theory.

Some of our readers will remember the account which we gave some months since of a Louisiana man who cured the orange scale insect by firing guns into the trees. It was a loud remedy and it is no wonder it attracted people's attention. The claim was that the insects would perish by concussion, or, in other words, we suppose, that the agitations in the air would pierce the waterproof scale and churn up the eggs so that no hatching could gather up the dessicated germs. A friend of ours thought he would try this easy method of crushing the scale insect. He had a small orange tree which was properly infested, and he fired into it until his neighbors thought he had started a shooting gallery. The result was that there was no more harm done than at our Fourth of July naval bombardment. He concluded that either our California insects, by reason of the earthquakes, have become inured to shaking, or that the Louisiana theory is shaky itself.

We now read in a New Orleans exchange that the originator of the theory has revised his schedule of causes, and instead of concussion he now attributes the mortality among his insects to the gas which is evolved from the burning powder. This gas theory is even lighter than the concussion. The gas generated by the combustion of gunpowder is not altogether wholesome perhaps, nor is it very poisonous—certainly not when liberated in the air. If it were we should find it among the deadly agents on the battle field, and pensions would have to be granted for lungs diseased by constant inhalation of it. Nor is it particularly fatal to life in lower orders than man. The American eagle is said to hover in the battle smoke and, doubtless, to get fat on it if provided with sufficient other nourishment. We find it difficult to write on this theory in a sober strain. The combustion of gunpowder liberates two gases chiefly: carbonic dioxide and nitrogen. Neither of these will sustain life if the air be sufficiently charged with them; but how a man, operating under the blue vault of heaven and in the vast expanse of circumambient air, is going to concentrate enough poisonous gas from the discharge of a gun to choke the insects on a thousand twigs, is more than than we can imagine. If we should try it we should want no weapon smaller than Sir Joseph Whitworth's 100-ton gun, and a barrel of gunpowder. We should as soon expect to kill an oyster by scratching a match upon his shell and letting him inhale the deadly fumes as to suffocate the insects on a tree by the smell of powder.

Agricultural Enterprise.

Not alone to California farmers is the movement for enterprise in placing products in distant markets. Our efforts to open the East as a market for our fresh and dried fruits are reflected by the deeds of the Italians, who lay a scheme which encompasses the world and besieges even our own metropolis. We read in the *English Farmer* "that Italy has long found an export market for the produce of her vineyards. Now she is actively engaged in looking up customers for her eggs, fruit, and other agricultural products. The initiative has been taken by a society of business men and agriculturists from Piedmont, Lombardy and Venice, which was formed last year under the direction of a Turin merchant. Despite the difficulties that naturally attend the inauguration of such a scheme, and the fact that they have only commenced active operations during the current year, its members have already attained highly satisfactory results. In five months only, they exported to Russia and Germany more than 66,000,000 eggs. As a tentative measure, several hundred truck loads of apples were consigned last autumn to Bombay and Calcutta, and 50 loads of the same fruit were shipped to California. The returns obtained encourage a continuance of the traffic. It is intimated that the increase in produce, which renders such exportation possible, is mainly due to the improved methods of cultivation that have recently been adopted." We are not sure that the above statement is accurate in all respects, but there is doubtless truth in the spirit of enterprise which is indicated. We have some points to make, however, before we shall be able to contest the world with the Italians. We cannot compete with them in eggs as long as we import them by the carload from the prairie States, or by the ship load from Oregon. Thus we have an opportunity more promising even than Italy in this direction. We have a home market yet to fill, and this is the most profitable kind of a market, so long as its demands are brisk.

In the matter of fruit we are fairly on the track to eclipse the enterprising Italians. Our advantages also are superior. Not for us is it to chase the rupees in Bombay, or encircle the world for eaters. Our market at the East is comparatively near at hand, and it is wise to possess it.

THE BUFORD GANG PLOW.—We are pleased to note that the Buford gang plow, which we illustrated recently, took the first premium at a trial of plows at the Santa Clara fair last week. Frank Bros. & Co. justly deem the plow entitled to a new advertisement in this week's PRESS, to which we ask attention.

QUERIES AND REPLIES.

Wool Clip.

EDITORS PRESS:—How many pounds of wool is the average annual yield per head of California sheep?—VICTOR DE MONTEREY, S. F.

We cannot improve on a reply which was given to this and other similar questions in our issue of September 2d: "We have met owners of large flocks who claimed an average of eight and even ten pounds per head. We believe that most are satisfied with six or seven pounds for the year. This is for sheep that have nothing but the natural pasturage: no hay nor grain."

Boys Who Will Work.

There have been a good many words used in some of the newspapers to urge upon our farmers the duty of employing white boys in doing the light work of fruit and hop harvesting instead of the Chinamen. Many farmers have made the experiment, showing a willingness to give the boys a chance if there might be any good in them. The result has not always been satisfactory. A farmer's help must have the disposition to work; he has not the time to turn his ranch into a reformatory for lawless hoodlums. We are glad to note that there comes evidence that there have been gratifying results with boy power. The secret of this success lies in the fact that the trial was made with good boy material and not with the wretched outlaw element whom no man can tame and whose reformation is a duty of the State. We read in the St. Helena *Star* that several of the town boys have gained employment in the picking department, and though received at first with reluctance and much doubt as to their efficiency, have proved themselves so diligent and faithful as to not only receive as much pay as the adult Chinamen, but in some instances he placed as foremen over the latter. The point evidently lies in securing good boys—those that are known to be of industrious habits and good character. The work is in itself light, and if a boy is disposed to behave himself and attend to business there seems no reason why he should not do it as well as a man.

Another testimonial of good in the boys is contributed to the Stockton *Independent* by G. C. Holman. He had boys to pick his hops, and says of them: "The boys and young men, from 16 to 20 years of age, with scarcely an exception, have been tractable, faithful and industrious, giving better satisfaction than the Chinese heretofore employed. They are generally from respectable and worthy San Francisco families, consequently well brought up. In the field there has been a spirited rivalry as to who should pick the most, being in marked contrast with the Chinese, who, when working by the day, seem ambitious to see how long they can make a job last."

There will be no lack of work for our boys if they will only prove themselves true and valuable. The farmer cannot afford to practice with any other style of labor. If boys are true boys they will not lack of encouragement from our generous and enterprising farmers.

ORNAMENTAL BEETS.—We have received, with the compliments of ex-mayor William Alvord, some very interesting and beautiful leaves of what are known as the "ornamental beets;" plants growing in Golden Gate park, from seed obtained from Germany. It is a plant well adapted for the louder styles of vegetable ornamentation. The leaves, while preserving the general marks of beet leaves, have all their points intensified. The petioles of the leaves sent us are from three to four inches in width, lustrous and dyed with the richest hues. One is blood red; another, with a border of reddish color, has the central portion of the stem tinged with a delicate purple, while still another leaf has a petiole of various shades of yellow. In the leaf blades the ribs and veins are a continuation of the characteristics of the petioles, and as the sun shines through the leaf the course of this ramification of deep colored transparent fiber may be marked through the darker and more opaque substance of the leaf. The leaves, which are fully three feet in length, have other beautiful points which will reward long study. When illuminated by bright sunshine they must be striking objects on a lawn.

PERSONAL.—By Wednesday morning's overland train, Alfred T. Dewey, senior member of the firm of Dewey & Co., took his departure for a visit to the East and the Centennial. Mrs. Dewey accompanies him. In the absence of our chief, we are free to inform the readers of the PRESS how richly Mr. Dewey is entitled to the brief respite for rest and recreation which he has taken. He labors for the success of his publications, and in the interest of those who patronize them, with an untiring zeal and devotion not common among men. The success of the publications themselves is the best evidence that he labors wisely and effectively. While he profits in strength by the enlivenment of changing scenes, we have no idea that he will be idle, but expect that his journey to the East will secure for the PRESS new attractions and points of increased value. We wish him a most happy and prosperous journey and a safe and speedy return.

[Editorial Correspondence.]

The Centennial at Philadelphia.—No. 16.

There yet remains one of the five main exhibition buildings to which your correspondent has made no reference, and which, for its size, is the most costly of all.

The Art Gallery or Memorial Hall.

This structure is situated just north of and parallel with the main building, and, like horticultural hall, has been built to remain upon the grounds after the exhibition is over. It is intended to serve the double purpose of an art gallery and a permanent monumental memorial of the great exhibition and of the first Centenniai occurrence of our national existence. It stands on a terrace six feet above the surrounding level, and over one hundred feet above the Schuylkill river, which flows near its base. The structure is in the modern Renaissance style of architecture. No wood has been used in its construction, the materials being granite, iron and glass, and the intention is that it shall be thoroughly fire-proof. The superstructure is 365 feet in length, 210 feet in width and 59 feet high, standing upon a substantial granite basement 12 feet high, and covering an acre and a half of ground. A beautiful dome, constructed of iron and glass, rises from the center to the hight of 150 feet from the ground, terminating in a colossal bell surmounted by a gigantic figure of Columbia, with outstretched arms, in an attitude of protection, and holding a laurel wreath in her right hand. On each of the four corners of the base of the dome stands an emblematic figure, typifying respectively art, commerce, manufactures and agriculture.

The general design of the building is a right-angled parallelogram, relieved by square towers at each of the four corners, and by a corresponding projecting vestibule in the center of the front or main entrance. The towers at the angles do not rise much above the line of the walls. They are ornamented at each corner with the national eagle—16 in all, with outspread wings and in defiant attitude. The entrance is gained by a broad and easy flight of steps, and made through massive doors of bronze. The steps to the terrace in front of the main entrance are flanked by enormons bronze figures of winged horses, held from their desire to spring forward by women of proportionate mold and ample flowing drapery. The terraces and surrounding grounds are well turfed and bordered with flowers and shrubbery. The whole forms quite an imposing and most fitting entrance to this great palace of art.

The accompanying illustration conveys a very good idea of its construction and appearance.

It is intended that this beautiful structure shall stand as a memorial for generations to come, and that within it shall be shown, free to all, the art treasnres of the world—paintings, sculptures, engravings on steel, copper and wood, lithographs, chromos, drawings, architectural designs, etc. So great was the application for space from all quarters of the earth, that the Commission was early compelled to erect an additional, temporary "annex," of nearly eqnal area to the original building.

Within the Walls.

Nearly every nation on the globe, with any pretence to civilization, is represented within the walls of memorial hall or its "annex." Each country appointed its own art committee of selection, or rather, we should say, rejection; through the gauntlet of whose criticism each work of art had to pass before it could find a place within these walls. England, France, Germany, Spain, Belgium and Italy are all large contributors. We have seen it stated that France alone has sent over 500 specimens of her art in painting and statuary. Italy sends about one hundred groups of statuary. Mexico, Chile and Brazil are also contributors. Nineteen different nationalities are represented, which, reckoned according to space occupied, and rating the United States at 40, stand about as follows: United States, 40; France, 34; Italy, 32; England, 30; Germany, 24; Belgium, 20; Netherlands, 12; Sweden, 9; Spain, 8; Anstria, 6; Russia, 4; Canada, 4; Brazil, 4; Portugal, 4; Mexico, 2; Denmark, 2; Norway, 2; Chile, 1; Argentine Republic, 1.

With regard to the relative merits of the several exhibitors, your correspondent will have but little to say, except in general terms, as he does not pretend to any special knowledge in such matters. The rooms are well proportioned and well lighted. A large corridor with a broad entrance runs entirely through memorial hall from north to south, with a narrow, but ample and convenient exit, at its farther extremity, through which the visitor passes direct to the temporary "annex."

The Display of Statuary.

In a central position in the main corridor, Doulton & Co., of Lambeth, England, the largest pottery and china-ware manufacturers in the world, have erected a copy of their famous group, "America," which adorns the base of the Albert memorial in London. As indicative of the care with which everything has been packed, transported and handled, we may remark that not a single one of the thousands of parts of which this group is made up, has been broken. In this central hall there are also some equestrian figures occupying the corners, and several other minor pieces of sculpture. But the chief exhibit in this line is made by Italy in the "annex," and that exhibit constitutes her chief contribution to the art department. The visitor, on entering that building, is encountered at the entrance by a great crowd of figures in marble and bronze, which fill to profusion two large rooms and a long hall or corridor besides. Some of these groups, 100 or more in number, have been pretty severely criticised. They consist of statues, big and little, tragic and pathetic, comic and otherwise, in an almost endless profusion. France also makes several contributions to this department, most of which are highly characteristic of French ideas, and some of which so far transcend American ideas of morals that the short comings in that direction have been, by order of the Centennial Commission, supplemented by an addition of drapery which bears very little resemblance to that which the artists have so scantily supplied.

The Display of Paintings

Is certainly extensive enough, but the ill-natured critics claim that it is not sufficiently "select." They claim that it would have been better if the commissioners had "weeded and weeded and weeded until enough respectable pictures and statues had been obtained to have filled the main building, (memorial hall,) and then to have rested content." While they acknowledge the presence of some really fine pictnres, they assert that the greater number do not rise even to the level of mediocrity—a fault which detracts so much from the general character of the whole, that that which should have been "the crowning joy-giver of the entire exhibition, is really the most disappointing and unwelcome featnre about it." We are also told that "after surveying, in other buildings, all that industry, ingenuity and taste can do for the comfort and welfare of man as an animal," when we come to the memorial hall "to seek the springs of delight in seeing how the soul reveals herself in beautiful and solemn ideals clothed in form and color," we turn away in disappointment and sorrow.

Particular Exhibits.

England is generally accorded with the finest display. We are told that she has never before made so full and creditable an exhibition in any foreign country. One room in the English section is devoted exclusively to deceased masters. But we have no space to enumerate.

The United States makes a very creditable display of what has been accomplished by our own people during the first hundred years of the Republic. This exhibition shows that we have in this country a large number of artists of real genius and talent, who are diligent, intelligent and earnest students of nature; and if their efforts lack something of the finer and more conventional qualities that are so much admired in the works of the best foreign artists, they certainly possess qnalities of a high order that are peculiarly their own, which fully compensate for their deficiencies. These qualities, moreover, give evidence that when the world comes up to this hall, as it surely will, to celebrate our next Centennial, if we do not rival Europe in her copyings from the ancient masters, we shall at least be able to present to the nations a distinctive and well established American school of arts, which will confound critics and give us a place which, if it be not higher, will at least be on an eqnal plane with the trans-atlantic school.

Of Germany it has been offered in apology for what has been considered by some a rather meager display, that there is an exhibition going on this year at Munich, where, for the first time in 30 years, a general display is being made of paintings contributed by German artists. This exhibition has very naturally drawn away from Philadelphia many works of a superior character, which would under other circumstances have found a place in memorial hall.

Conclusion.

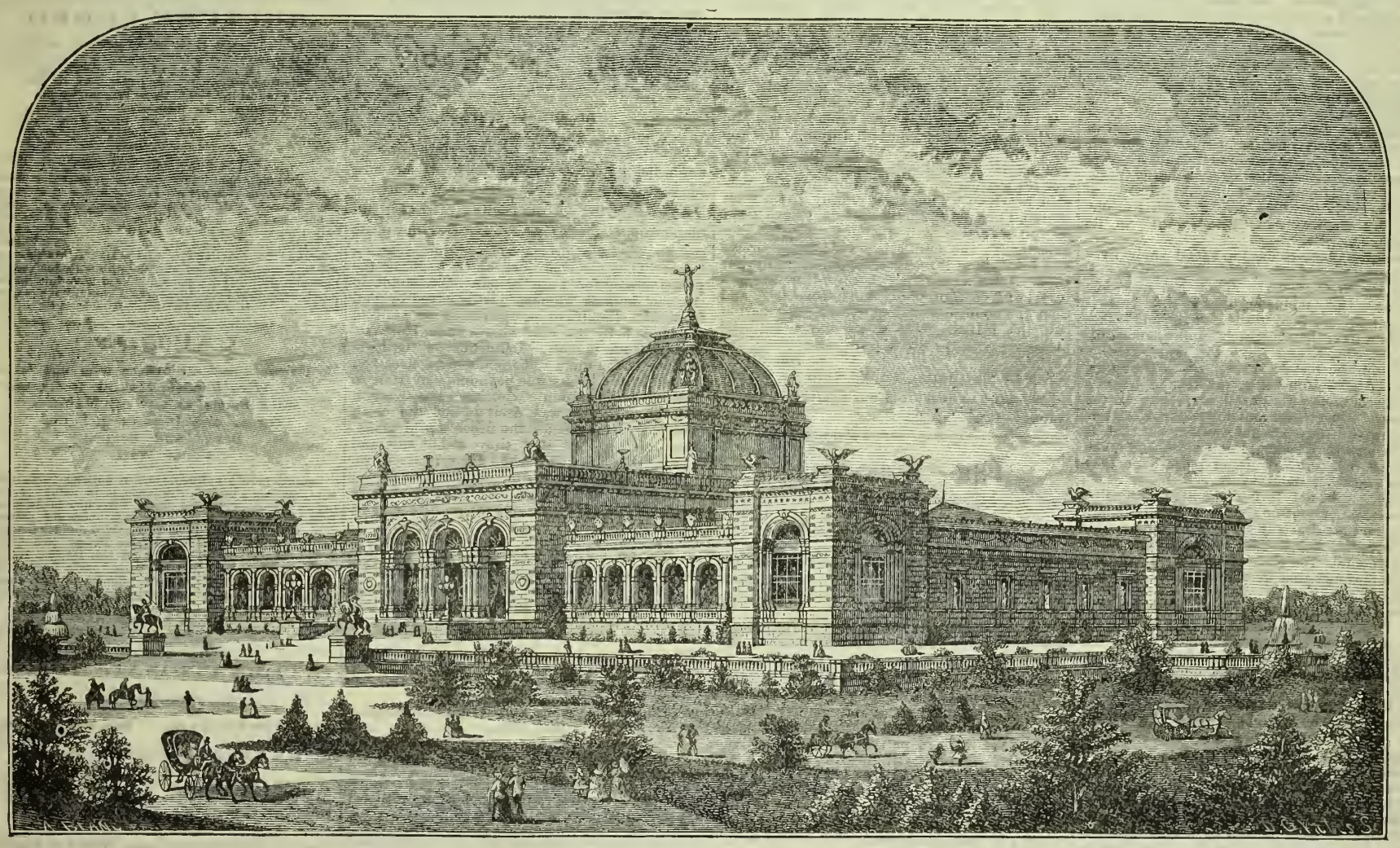
But we have no space in this letter to make even the slightest detailed reference to all who have come up with their contributions to this great world's exhibit of art and genius. We have merely space for one or two more brief general refereuces, and we shall leave the art department to the tender mercies of the critics and the more generous consideration of the great masses of the people who, by their daily pilgrimages thither, are recording their favorable verdict and full appreciation thereof.

Considerable criticism, not so much, perhaps, of the hypercritical order, has been devoted to another feature, which has become somewhat prominent in the eyes and ears of those who have been almost daily visitors at the art gallery for months in succession. It is generally understood among artists everywhere, that in cosmopolitan exhibitions of this kind care should be taken to avoid all appearances of offence in matters of international difference. It is held by many that the German commission has exhibited bad taste, if not feeling, in this direction in insisting, against earnest objections, upon the presentation of certain paintings distasteful to French nationality—that they have sought to make this exhibition a "brag" over the Franco-German war, in that they have placed in a particularly conspicuous position not one only, but two large representations of the disaster at Sedan. And what makes the matter still more unfortunate is the fact that the visitor approaches the German exhibit directly from that of France. The consequence has been that an ill-disguised bitterness and bad feeling is frequently manifested between visitors from these two nationalities who chance to meet before these pictures. This feeling is often displayed by fiery glances, and sometimes by low but bitter words.

Then again, our own people have not been altogether innocent of sin in this direction, since Rothermel's "Battle of Gettysburg" is displayed at one end of the United States main exhibition room, while Hicks' "General Mead" occupies a prominent position at the other extremity. It is held that these exhibits lead to a painful "dragging back" to the light, of many things which, on this occasion above all others, should be carefully buried out of sight, if not entirely forgotten.

Of course no exhibition or management can be entirely faultless; but with all its faults and short-comings, this great exhibition of the world's progress in the fine arts is one of the best ever made. Days and weeks may be spent in these two buildings with pleasure and profit, in looking upon and studying the great works of art here presented, which, without this opportunity of bringing them together, would have required of our people years of travel in foreign lands and our own to behold.

W. B. E.



ART GALLERY—INTERNATIONAL EXHIBITION.

Strawberries all the Year Around.—Our Eastern friends, who snatch a hasty meal of strawberries with each recurring June, may be interested to know that a friend of the Rural Press, Mr. I. A. Wilcox, of Santa Clara, whom we mentioned as showing fresh strawberries on the first of January last, is still shipping to the city at the rate of 15 crates a day. This is coming close to the circle of the year.

(Continued from Page 251.)

wide and intelligent observation, whose application has already been attended with marked improvement both as to quality and quantity of dairy products in the State of New York. It has been said by one of the large dairymen of that State, that Prof. Arnold's suggestions in these matters have alresdy more than paid for all the outlay made by the State at Cornell University. Yet in reading even this valnable book, you must remember that the conditions under which you work are in many respects very different from those of most other dairying conntries. Especially in the matter ol pastures there is a great difference, and, I think, a good deal yet to be done.

Two questions appear to be most pressing in this connection:

1. The preservation of the nstural pastures against the invasion of weeds, both nstive and introduced.

2. The finding of forage plants other than alfalfa for summer pastures.

Even dnring my short residence in California, I h.ve observed the rapid progress msde by weeds toward the occupation of the mountain slopes, to the exclusion of the native wild oat and burr clover. It has seemed to me, too, that this fact, and the native resources generally, are not always appreciated as they deserve to be. Just as in speaking and writing we should give the preference to the native idiom over "big words" borrowed from foreign languages, so we onght to scan closely the home resources before sconring the world for new crops of doubtful success.

It seems to me that the hardy "bnrr clover" o this country is not appreci'ed as it deserves to be. An excellent forage plant while green, and strewing the soil with its nutritious pods when it dries np, it is yet exceedingly frugal in its habits; requires neither irrigation nor tillage, but only that the ground shonld be kept ressonably free from the overwhelming numbers of the tsrweed and the like. How if, instead of only fighting it as a weed in our fields, we should try to "give it a lift" in its fight for existenc?

Southern planters used to spend their lives in fighting crab grass, while paying out millions for Western hay. They are uow fast coming to the conclusion that as that grass is so admirably adapted to the climate, and makes excellent hay, they might as well plant a little less cotton, and give the crab grass a chance on the rest of their land. They now have clesner cotton fields, and keep at home a big sum of mouey that nsed to go out of the country. Burr clover and alfilerills sre terrible weeds where they are not wanted; but that is no reason why we should not nurse and even cultivate them in their proper places; for they are thankful for amall favora.

Alfalfa will not thrive equally on all soils; and we cannot continue to grow alfalfa indefinitely on the same soil. The land will inevitably become "aick," and something else must for a time take the place of alfalfa. It is of the laat importance that we should be ready with desirable snbatitutes.

On this subject experiments cannot be too aoon begun. The suggestion has been made that inasmuch as our dry summers render impracticable the nse of any of the ordinary ahallow-rooted pasture plants, some deep-rooted shrubbery plants might be made to aerve for summer browsing. The experience had in Louiaiaua encourages me to think that a plant not nsually used for forage here might be found adapted to our needs in this regard. I mean the ramie or "China grass." At the time when it had become abundaut in Louisiana, and no machinea were found to work the fiber, its ahoots were used for green-soiling very successfully. It ia not reported what was the effect of this food on the milk of cows; but as it seems to remain green here throughout the dry season, it certainly deserves a trial as a "browsing" forage plant. It is easily propagated.

Another plant thst ahould have a fair trial in the climate of California, is the carob tree (or algaroba). It is exactly adapted to onr bare, rocky, drouthy hills, on which little else can be made to grow to advantsge. Large quantities of the sweet pods of this tree are imported into England and fed to stock, especially to milch cows. It ia brought there from the shores of the East Mediterranean, from climates reaembling that of Southern California. We onght to be able to grow it here to advantage, and it would come in abont the time when other snoculent feed is acarce.

My friend, Dr. Strentzel, haa started the experiment with a few seedlings; but it ought to be tried on a larger scale, and in different sections of the State. I have been tcld that it has been grown in Sonthern California, but with what result I am not aware. It was my intention to atart this among many other crop experimenta, at the experimental grounds at B.rkeley; but the failure of an appropriation for the pnrpose last winter has cut short all operations of the kind. Whenever legislative wisdom or private munificence shall put the agricultnral department on a more effioient basia, we shall be able, not only to make suggestions but to announce practical results.

In the meantime I repeat, I can only offer you cordial co-operation in determining doubtful pointa, ao far as it can be done from the results of previous experience, or from inveatigations in the laboratory, on a small acale.

Professor Hilgard's address drew forth a very enlivened and valuable discusaion, pointa of which we shall take up in their order next week.

HORTICULTURE.

The Orange Scale Bug.

EDITORS PRESS:—Passing through the Santa Clara valley, Ventura couuty, yesterday, I observed some young orange trees jnst beginniug to bear. Some of the trees, of seven or eight years, have from 20 to 50 oranges each. The lemon trees, too, are just begiuning to produce fruit. But, alas! the scale bug was there too, and had blackened most of the leaves with the sooty spores of these miserable pests. It is very evident that these inseots grestly retard the growth and limit the productiveness of the orange and lemon. Now, as the orange is yet to become a denizen of the kitchen garden in all parts of the State, it becomes an inquiry of general interest, how shall we forestall the pest and how eradicate it after it has fixed its lodgement on the tree? With the object of drawing out the views of orange cultnrists in the State, and particularly of those living in Los Angeles, I wish to propose through the RURAL PRESS the follo wing inqniries:

1. Whence comes the bug? And is there auy way of growing an orchard without them? I have some trees in my orchard that have never been infested with them, while others have them.

2. Does the tree ever outgrow them, so as to slough them off and become free? How is it in Los Angeles?

3. Do they ever kill the tree and rnin the orchard in this conntry or any other?

4. What effect will it have upon the tree and the bugs to sow dry ashes all throngh the top on windy and rainy days? The ashes, of course, will alight on leaf and stem and cling to the tree till washed off, and will not the leach pervade nearly every nook and cranny, to the utter rout and disgust of the parasite? I have tried this on pear trees with splendid success. The objection to the application of tobacco water and snlphate of iron, as recommended in our paper of two weeks since, is this: it will take a barrel of it to thoroughly wet a large tree, and then you could uot possibly reach every part of half the leaves. Will some orange culturist please reply to the above inquiries?

S. BRISTOL.

San Buenaventura, Oct. 3d, 1876.

[We hope to hear from our readers on these points.—EDS. PRESS.]

THE VINEYARD.

W. B. West's Vineyards.

A correspondent of the *Bulletin* makes the following iuteresting mention of the vineyards of W. B. West, of Stockton, a contributor to the RURAL PRESS and one of our most enterprising frnit growera:

There are large grape and wine interests in the vicinity of Stockton. No inconsiderable portion of the grapes coming to San Francisco are raised in this aection of conntry. Shipments are chiefly made by railroad, owing to the fact that fruit is perishable, and the trains run daily. Some few of the vineyardista make wine, but the bulk of the grape crop ia consumed by citizens of San Franciaco or shipped over the mountains.

One of the largest wine makers is George West, a Massachusetts man, who aettled in the vicinity of Stockton 22 years ago. His suocess showa what may be accomplished by perseverance. His vineyard ia about two and a half miles southeast of the town, bordering on the line of the railroad. It there covers 50 acres, and he has anoiher of equal size on the Calaveras river. Mr. Weat has demonstrated that viniculture is profitable when followed with the skill and care necessary to ordinary business. He statea that he finds no difficulty in disposing of his table grapes, and that grape growing for wine making can be made remunerative. Mr. West is now in the midst of wine making aud the distillation of brandy. He haa two wine cellars—one containing 20,000 gallons of light wines, and the other 40,000 gallons of port and sherry. His winea have a large local sale, and large quantities are shipped East, to be vended, as he knows, after being slightly flavored with French wines, for genuine importationa from Europe. To the unlearned and non-connoisseur in that wonderful art of wine-taating, his productions appear first-clasa and up to the aame description of winea made elsewhere in California or in Europe. They certainly tend to establish the fact that wine making may be followed elsewhere than in the foothills. Mr. West maintains there is no better part of the State for viniculture than in the neighborhood of Stockton, where the soil is a chocolate-colored loam less heavy than adobe, and with long, warm, dry aummera to assist in the fructification of the grape. His vineyard has produced in Missiou grapea 12 tons to the acre. Thia year he expects between 10 and 12, and an average of 10 tons for both vineyards. His method of planting is in rows eight feet apart. The ground is plowed between the rows once every year. His experience makes him believe in short pruning—back to their eyes—long pruning producing, he says, an inferior quality of grape. He believes in irrigation for the grape, from the fact that those vineyards on the Calaveras river, where the water covers the ground for one or two weeks at a time in the winter, prodnce larger crops than the same class where the water percolates through the soil after heavy rains. If Congress would pass the bill, waiting final action at the adjournment of last session, when it re-assembles in December, brandy msking wonld become an important interest in th s State. As the law now stands, bnt few persons can afford to go extensively in it, becanse the revenne must be paid at once, notwithstanding that the brandy itself is virtually unmarketable for at least three years. The change proposed is to allow the brandy to be kept in bonded store for three years before the whole duty falls due. Vineyards in the neighborhood of Stockton do not begin to make a retnrn until from three to five years from planting. They then pay handsomely. The neighborhood of Stockton, Mr. West contends, will produce as good port and sherry as is made in the State, although he yields the palm to Napa, Lake and Sonoma counties for light table wines. Mr. West has some few vines of the white Corinth or seedless variety, from which the Sultana raisin of commerce is produced. He thinks this is one of the most profitable kinds to vinicultnrists. It is a large cropper and ripens early, so that there are abundant opportunities for drying before the first rain falls. The table grape most profitable to him is the Purple Damascus. It always finds a sale in San Francisco.

SHEEP AND WOOL.

Angora Goats.

Our readers noticed by the State fair premium list which we printed two weeks ago how successful Landrum & Rodgers, of Watsonville, were in carrying off the leading prizes for full blood Angora goats. On all the entries they made they received a prize, except one yearling buck. They received just one-half of all the prizes offered for pure bloods. We allude to this fact because we have just received by mail from Mr. Landrum a sample of 90 yards of goods made by the Farr Alpaca mills, Holyoke, Mass, from mohair. Landrum & Rodgers shipped to the mills 1,688 pounds of fleece on August 19th. There was not sufficient time to make up this fleece into cloth for the Oregon fair, for which it was desired, but the cloth sent was just such as the fleece would make. The mills reported that they would sort and classify this lot of hair and remit in ten days. This will give Landrum & Rodgers full return for their hair in seven weeks from time of shipment. Thus it appears that the fleece has a ready market.

The sample of cloth to which we allude is very fine indeed and bright and strong. It is certainly a very desirable product, and it seems to us that the prospect for the business of supply material for it is very bright and promising.

The Immigrant Bureau Re-Organized.

A Free Employment and General Information Office.

The Peoples' and Grangers' Immigrant Bureau, which accomplished so much good last year, has been re-organized under a new Board of Directors, and will continue its good work of attracting immigration and providing for the necessities of the new comers FREE OF CHARGE. Four thousand and eighty-two situations have been found for applicants since May, 1875. The Bureau expects to receive orders for all the help that may be required in the country the present season. Four hundred persons visit the office daily. Descriptions of land, maps, pamphlets, circulars, and local newspapers, should be sent to the Bureau. They will be freely distributed among inquirers. The Bureau was established by the State Grange, and being supported *entirely* by subscription NO CHARGE is made for any business transacted. The following gentlemen are on the Board of Directors for the ensuing year: Mayor A. J Bryant, Chairman; I Friedlander, C. Adolphe Low, Mark L. McDonald, Amos Adams, J. Regensburger, C. D. Sullivan, Charles Lux, George H. Eggers, J. C. Wilmerding, C. J. Creasy, John Morton, Col. A. Wason, Hon. F. A. Gibbs, F. B. Taylor, C. H. Dennison, Clans Speckles, Charles Kohler, A. W. Thompson, All communications should be addressed, J. EARL, MANAGER, IMMIGRANT BUREAU, Grangers' Building, 40 California street, San Francisco.

GOOD PRINTING INK.—We prefer Chas. Eneu Johnson's printing inks, having used them on this paper for the past four years. H. S. Crocker & Co., printers, statieners, blank book and paper dealers, are Johnson's S. F. agents.—DEWEY & Co., Publishers.

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AMERICAN MANURES, OR FARMERS' AND PLANTERS' GUIDE.—Comprises a description of the elements and composition of plants and soils; the theory and practice of composting; the value of stable manure and waste products, etc. Also, a chemical analysis of the principal manufactured fertilizers—their assumed and real value—and a full expose of the frauds practised upon purchasers. By Wm. H. Bruckner, Ph. D., Phila. Sold at this office. Price, $1.75; post paid.

THE THRESHERS' GUIDE, by D. W. Hollihan, a practical operator with threshing machinery in California and other States. A book of useful and friendly hints to the grain growers, machine owners and threshing superintendents and workmen. Published at the RURAL PRESS office, in 1872. Price, $1; in limp cloth binding, 75 cents; postage paid.

RUPTURE CURED.

We would advise all those of our readers suffering of Ruptnre to carefully peruse the card of the MAGNETIC ELASTIC TRUSS COMPANY, in another column of this paper. As to the admirable effect of these Trusses, which have proven themselves the only efficient ones, we print the annexed testimonial, which speaks for itself.

SAN FRANCISCO, September 25th, 1876.

I would state that I have been ruptured for nearly three years, and have worn various kinds of Iron and Steel Trusses, without any benefit. I saw an advertisement of the MAGNETIC ELASTIC TRUSS CO.; called on them on the 28th day of July, six weeks ago, and now, on the 25th day of September, 1876, after wearing the MAGNETIC ELASTIC TRUSS only six weeks, I am astonished and delighted to find myself perfectly well. If any person should have told me two months ago that I could be cured, I would have laughed at them. D. ALEXANDER, 809 Jackson St., S. F.

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You are hereby notified, that in putting barbs upon wire, making a barbed wire fence, or in using or dealing in barbs or barbed fence wire, not made under license from us, you are infringing upon our patents, and we shall hold you strictly accountable for damages for all infringements of Letters Patent, Nos. 66,182, 67,117, 74,379, 84,062, 153,965, 157,124, 157,508, 164,181, 173,667; re-issues, Nos. 7,136, 6,976, 6,902, 7,035, 7,036, 6,913, 6,914, and other patents. Copies of our claims can be obtained of our attorneys, Coburn and Thacher, Chicago, Ill.

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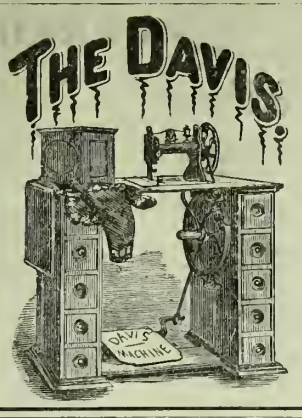
Is constructed on an entirely different principle from all others, and is not controlled by any combination. The feed used in the manufacture of all other Sewing Machines, and known to be the property of a combination, *is successfully displaced*, and a more simple, durable and powerful FEED, that contains but one-fourth the machinery required for the old feed, takes its place. A moment's glance at this novel combination for a FEED, will convince the reader of its superiority, for the following reasons:

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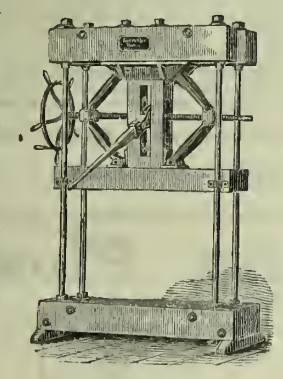
If any company, or company's agents feel inclined to accept this challenge, we ask them to come forth and show their colors. Some of them assert that the DAVIS is a "needle feed;" "will blind a person;" "will soon wear out;" all of which is false. We defy them to prove any of these assertions.

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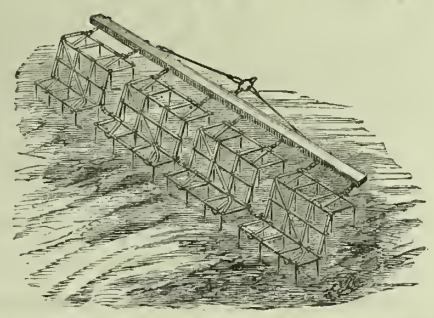


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This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

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This Harrow was Awarded the First Premium at the California State Fair in 1875.

The undersigned, having purchased the patent right of this Harrow for California, are now manufacturing them in Roseville, Placer County, and would call the attention of Farmers to the superior merits of this Harrow over all others now in use.

As its name indicates, it is made in sections of about three feet in width, each section having four bars, in which the teeth are inserted, and by connecting the sections with hooks, the Harrow is formed.

Should a Farmer require a Harrow upon his farm to do all kinds of work, he should purchase six sections, which would be suitable for four horses, and would cut 18 feet in width; by disconnecting two sections he will have a two or three-horse Harrow, cutting about 13 feet. One section alone is complete in itself, and suitable for garden work, with one horse. The Harrows are made of the best quality of iron, and with teeth warranted to be steel.

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Prices, from $12.50 *to* $15.00 *per Section.* All orders sent to

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CAUTION.

It has come to our notice that certain parties are now making this Harrow in this State, and that several of them have been sent here from the East. Now this is to *caution* all persons against making, selling or buying them, so made and offered for sale, as we shall enforce our rights in relation to the matter, and would call the attention of all persons infringing upon our patent, to the *law* in regard to it.

BREWSTER & CO.,

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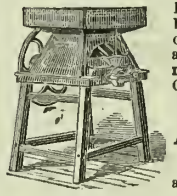
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SWINE.—Boar, Tom, B. S. Moody, $10. Sow, B. S. Moody, $5. Pair pigs, W. A. Pierce, $5.

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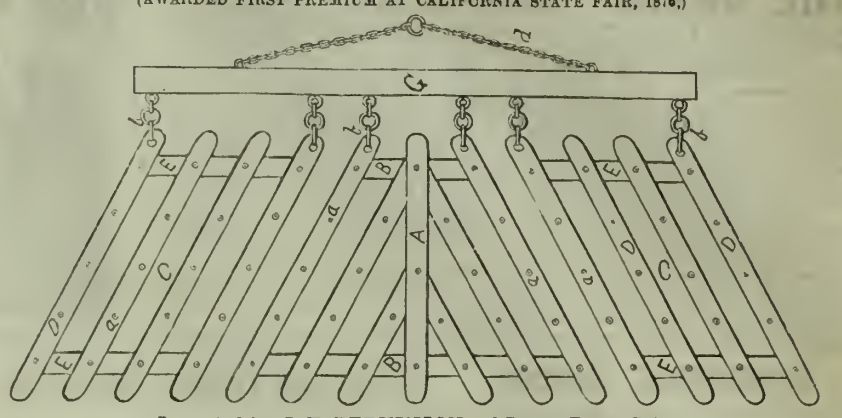
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Invented by J. E. PERKINSON, of Santa Rosa, Cal.

Merits are claimed for this Harrow over all others in use. It gives good satisfaction in its work, and should be thoroughly tested by farmers. It has the build of durability. It can be made for $35 on this Coast.

This Harrow is made in three sections, which are connected to a draft bar by links and clevises. The bars are about four feet six inches long, and there are four bars in each of the two outside sections. The center section is filled up as seen in the engraving. The Harrow is made of good Eastern oak, with 63 steel teeth, and covers about 13 feet width of swath.

Reasons for the Superiority of this Harrow.

First—By the lightness of the draft, two horses, of ten hundred each, can draw it on loamy soil with ease.
Second—It is the best attachment in use. The draft bar is perfect. By using an equalizing chain to draw by, it keeps the Harrow in its right position and makes it easy to turn at a corner, as no wide spread Harrow can be turned with ease without those equalizers.
Third—Where other patentees have failed in setting the teeth so that each and every tooth will make a separate and distinct mark, this Harrow will do it on trial.

The Harrow is manufactured by the inventor, J. E. PERKINSON, at Santa Rosa, Cal., to whom applications for rights can be made.

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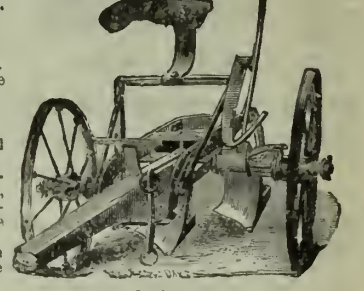
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LAND ADJUSTMENT.—The land is adjusted by holes in the clevis in the natural way, and by moving the rear end of the tongue. When properly hitched, the pole chains hang loose.

OPERATION.—There are no complications of levers and gearing, one lever only being required to operate the plow in the ground at various depths; and the same lever, in connection with a lug on the hub, lifts the plows clear of the ground for turning at the corners, without effort of the operator.



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10-inch 2-gang $100
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S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

San Francisco, Wednesday, Oct. 11th, 1876.

The week is marked by another advance in the foreign price of Wheat and a slight improvement in local rates. This matter is presented in our editorial columns.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	Cal. Average.	Club.
Thursday	9s 11d@10s 2d	10s 2d@10s 6d
Friday	10s 1d@10s 4d	10s 5d@10s 8d
Saturday	10s 1d@10s 4d	10s 5d@10s 8d
Monday	10s 1d@10s 4d	10s 5d@10s 8d
Tuesday	10s 1d@10s 4d	10s 5d@10s 8d
Wednesday	10s 1d@10s 4d	10s 5d@10s 8d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	9s 11d@10s 3d	10s 4d@10s 9d
1875	11s —@11s 4d	11s 4d@11s 8d
1876	10s 1d@10s 4d	10s 5d@10s 8d

The Foreign Review.

The telegraphed extract from the *Mark Lane Express*, under date of October 9th, is as follows:

The amount of moisture in the North has again been excessive. Harvesting consequently proceeds very slowly. Such Cereals as have been carried in an unsatisfactory condition are likely to suffer further detriment in stack. In the midlands a considerable quantity of beans is yet unsecured, carrying having been entirely stopped by the continuous rainfall In Ireland the weather has been better, and the Cereal harvest is now fairly over. It has been impossible to thresh freely of late. Supplies of Wheat at the principal markets have been light, and the bulk is in damp and inferior condition. Such qualities only have been saleable at a decline of a shilling per quarter. Even then trade has been slack. The week's imports of Foreign Wheat into London have been light. It is noticeable that there were no arrivals from the United States or Canada. Imports for the last five weeks of the Cereal year were 3,631,842 cwt., against 7,840,733 cwt. for the corresponding period last year. These facts enforce the opinion that unless the American and Russian arrive much more freely than of late, prices must rise further, in order to attract the necessary supplies from abroad. The most serious aspect of the Eastern question for some days has perhaps somewhat influenced buyers. Russia's going to war would doubtless cause considerable excitement in the grain trade, as short shipments of red Wheat from America and elsewhere render the Russian supply far from being our main reliance. The local trade is almost unchanged, buyers and sellers alike awaiting political events. There were very limited arrivals of floating cargoes at all ports of call during the past week. Red Wheats have consequently firmly maintained prices. White advanced about a shilling a quarter. Malze, with continued large shipments from America, ruled quiet and unchanged.

Freights and Charters.

The freight market, says the *Post*, has ruled quiet in all its branches during the week. Wheat charters are slow, owing to the large list of engaged tonnage on the berth. We have at the present time more ships under engagement in port than can be loaded and dispatched this month. Rates, however, are firm, as the list of disengaged tonnage is small and includes very few vessels that are first class and available for Wheat loading. We quote nominally at £3 to a direct port and £3 2s 6d to Cork for orders. We have now in port, secured to load Wheat, 78,832 tons of tonnage; 7,608 tons are secured for miscellaneous purposes, and the list of disengaged tonnage foots up 25,357 tons. The engagements of the week have been as follows: Br bark Lord Ashburton, 918, Wheat to Liverpool, private; schr R. J. Moulton, 538, Barley to Baltimore, $13 currency; Fr bark Louise, 405, Wheat to Callao, £1 8s: Fr bark Jeanue, 256, Wheat from Monterey to Cork, £3 2s 6d; ship Great Admiral, 1,576, Wheat to Liverpool, £3; Br ship Candidato, 806, Wheat to Cork, £3 5s; Fr bark President Thiers, 391, Wheat to Cork, U. K. or Continent, £3 2s 6d; Br ship Rona, 1,369, Wheat to Cork for orders, prior to arrival, £3 5s; Br bark Phæton, 576, Wheat to Cork for orders, private; ship St. Lucie, 1,318, Wheat to Liverpool, prior to arrival, £3 5s; Br ship Cilurnum, 1,885, Wheat to a direct port, U. K., on owners' account.

The Chicago Grain Market.

Chicago, October 8th.—The past week has been eventful in the Wheat trade, and has been marked by violent reactions and generally a strong tone and higher price, but closed with a sudden drop, which caused surprise to those who had all along been predicting higher prices this winter. The culmination of the corner on old No. 2 spring was reached last Saturday, when cash Wheat was held at a considerable premium. As nearly all Wheat is now new, cash is lower than options. Stocks are generally accumulating in the West, and granaries are reported to be full at all points in the West, only waiting for facilities to ship. Freights are not materially higher, but will doubtless be raised before long, thus causing lower prices here. Sales for the week have been from $1 05¾ to $1.11, closing at $1.06⅜. Corn has weakened under continued heavy receipts, selling at 42½@46½c, and closing at the inside price. Oats have also weakened, and closed at 33¾c. Barley has been cornered, and No. 2 spring sold on Saturday at 90c.

New York Grain Market.

New York, October 9th.—The Grain trade of the week has been rather mixed. Europe is largely deficient in Wheat, but supplies of the old crop are large, and as speculation is in abeyance, prices in the English market have been barely steady. The effect of the tame cable advices upon our market has been rather depressing, especially as freights are firmer and gold lower, with a general war in Europe considered imminent and with a light stock of good Wheat there has been no pressure to sell, and prices are without material change. No. 2 spring Wheat has sold at $1.12@1.22 for old, and $1.22@1.27 for new; but inquiry has been chie y for winter for the Contiuent, at $1.12@1.27 for red and $1.30@1.33 for white. Rye also sold freely for the Continent at 37c to 90c. Corn is a turn cheaper on account of a reduced export demand. Barley is depressed and lower. Shipping Flour continues scarce, and prices have advanced a little.

California Hops.

The *Commercial Herald* gives the receipts of the new crop of Hops in San Francisco to the date of its last issue at 2,500 bales, chiefly from the Sacramento district, with small consignments from other sections. Many growths from Sacramento, the *Herald* says, exhibit the fault referred to several months ago, that of the presence of many green leaves. Why this should be so in excess of other districts it is difficult to explain. Sample lots which have come to hand from Lake county, Russian river, etc., maintain their reputation for being A No. 1. From Santa Clara and southern counties none have yet come to market, but from personal observation, A. T. Elliot, the well known expert, thinks it may be concluded the quality and yield therefrom will be as good as in past years. Oregon and Washington Territory Hops have been received in small quantities. It is to be hoped that they will be in good condition for exportation, which hitherto has not been the case, as despite their handsome appearance they have invariably heated after a few months. In regard to prices, the *Herald* remarks that, opening at 18@20c, the rates have advanced in our local market to 25@28c, with more asked. The former rate is as much, or even more than the foreign demand allows. Considering the fickleness of the value of the article, and though it is a wisdom seldom used by sellers, yet it would be well for them to remember that when buyers are plentiful and prices remunerative it is time to sell—and such is the present. Reports of very short crops in other countries with chances of extremely high prices must be taken "cum grano salis"—in other words, at a discount, and the experience of past years does not justify holding Hops at the rates now current. It is noticeable that Eastern advices put the yield of the Pacific coast at 16,000 bales. "This," says Mr. Elliot, "I am convinced is erroneous, and that the outcome will show at most 9,000 bales for export." Transactions to date are given by the *Herald* at probably 1,200 bales for export to Eastern States, and a few to England and Germany. The latter is especially a speculative idea, as our Teutonic brethren are hard to convince that anything but their own is the correct thing.

Eastern Wool Markets.

New York, October 9th.—There has been a fairly active demand for finer grades of domestic Wool, chiefly speculative, and the firmness that has been a noticeable feature for some time back still continues. The stock of new fall California is well sold up, and the daily receipts find willing purchasers. Spring California is also in request and steady. The demand for foreign is limited, owing to the comparatively low prices ruling for domestic. The sales of the week were: 176 000 lbs spring California, 19@26½c; 16 bags scoured do, 65c; 6 bales do pulled, 64@66c; 130,000 lbs slightly hurry fall California, 14½@16½c; 15,000 lbs free do, 19 @20½c; 375,000 lbs Utah, 28@30c; 30,000 lbs Western Texas, 26c; 20 000 lbs scoured do, 55@60c; 12 000 lbs Eastern do, 24@26c; 70,000 lbs X, XX and XXX Ohio fleece, 40@48c; 18,000 lbs No 1 do, 40@41c; 2,000 lbs unwashed do, 23c; 3,000 lbs black do 35c; 4 000 lbs Wisconsin, 35@36c; and 10,000 lbs Ohio combing, 8,000 lbs do No. 1 and No. 2, 50,000 lbs do unwashed, 50,000 lbs do XX, 10,000 lbs unmerchantable do, 67,000 lbs X and XX Wisconsin, 50,000 lbs State, 40,000 lbs medium Western, 2,000 lbs lambs' pulled, 131 bags old X do, 14 do short do, 20 do super do, 6 do No 1 do, 100,000 lbs Western Texas, 70 000 lbs Shivey fall Californla, 10,000 lbs black spring do, 16,000 lbs pulled do, and 10 bales Cape, on private terms.

Boston, October 8th.—Wool quiet, with a fair demand from manufacturers, and sales foot up 1,800 000 lbs. Prices are well maintained, with firmer feeling on some grades. There is a very small stock of desirable fleece and combing and delaine selections and spring California. Sales of Ohio and Pennsylvania have been 354,400 lbs, including X and No. 1, at 38@41@45c; XXX and picklock at 47c; Sales of Michigan were 95.000 lbs at 37@38c. Sales of 30,000 lbs Wisconsin at 35@35½c; sales of 25,000 lbs Western at 38½c; sales of 198,400 lbs combing and delaine at 47½@50c for combing and 35@ 46c for delaine, and fine do at 41½@45c. California Wool has been sustained at full prices. Sales of 405,000 lbs at 18@32c, and 64,400 lbs pulled Wool at 28@40c.

Domestic Produce,

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week Sept. 20	Week Sept. 27	Week Oct. 4	Week Oct. 11.
Flour, quarter sacks	61,731	55,198	43,410	84,677
Wheat, centals	394,552	387,481	485,903	404,408
Barley, centals	68,994	60,354	369,475	82,457
Beans, sacks	283	2,766	1,966	1,940
Corn, centals	2,454	2,071	2,911	4,253
Oats, centals	15,611	9,255	20,702	7,604
Potatoes, sacks	20 300	15,292	16,685	17,901
Onions, sacks	768	1,723	1,123	1,560
Wool, bales	5,079	6,610	8,186	8,337
Hops, bales	435	717	1,162	794
Hay, bales	2,575	2,093	2,017	1,881

Bags.—Bags are altogether without change and there is little doing. The combination is reported by outsiders to have possession of five million Bags which they can carry over at such a loss as may be necessary.

Barley.—Feed Barley is rather quiet, but good Brewing is in good demand. We note sales: 1,500 sks Coast Feed at 92½c; 400 Bay Feed at 95c, silver; and 400 do at 92½c; 500 sks bright Coast, 95c, half gold; 1,200 sks Coast Feed at 95c, silver; 150 do, new Brewing, $1 05; 300 do do, $1.07½; 400 sks Coast, 92½c ₱ ctl; 1,500 sks Feed in lots at 95c, and 500 sks at 92½c, all sales for silver; 350 sks dark Coast Feed at 90c; 1,200 do good do, 95c ₱ ctl, both silver; 700 sks good Coast Feed, 95c, silver; 1,000 do choice Brewing, $1.10 ₱ ctl, gold; 2,400 ctls choice Bay Brewing, for New York, $1.10; 500 sks Coast Feed, 72½c; 4,700 sks good do, in several lots, 95c, all silver; 3,100 sks Coast Feed at 95c; 360 do Coast Chevalier, $1, both silver.

Beans—Bayo Beans have gained a point during the week: full prices below for all sorts.

Buckwheat—Sixty-eight ctls of Buckwheat have been received and sold at 2¾c per pound.

Corn—The market is dull. We note sales during the week as follows: 150 sks Round at $1.15; 200 sks small Yellow at $1.20; 300 sks large Yellow, $1.15; 200 do small Round, $1.15, both silver.

Dairy Produce—There is now a wide range in the quality of the fresh roll Butter which is arriving, and much of the lower qualities is pushed aside by the pickle roll. On the other hand, the very choicest fresh roll, Point Reyes and perhaps other favorite brands, sells as high as 50c per lb. Cheese is also of a marked variety in quality and much is very inferior. There are sales of the make of two brands as high as 17c and none has sold for less than 16c. Just now there are especial lessons to learn concerning the advantage of making fancy articles of dairy produce. Prices are given below.

Eggs—Eggs are a shade weaker. Although an occasional lot may reach 47½c, the usual range is 42½@ 45c.

Feed—Ground Feeds are unchanged from last week's prices. There has been a little fluctuation in Bran, but to-day the price reached the point of last Wednesday again. The range of prices for hay is same as formerly, $7 to $13.50, according to quality. We note sales: 42 tons good Wild Oat, $10; 42 do Wheat, Barley and Wild Oat mixed, $11; 30 tons cow, $9.50; 44 do mixed, $10.50; 41 do do, $11 per ton.

Fruit—The new crop of California raisins is now showing most excellent quality. Considerable amounts are received from John Briggs and R. B. Blowers. Mr. Blowers' raisins are beautifully packed and adorned, and in quality are reported by the grocers equal to the "Single Crown" imported brand. Mr. Briggs' are also very fine. The latest mail dates report the New York market as follows: Since our last, the steamers Romulus and Assyria have arrived, bringing from Malaga 41,144 bxs, 2,454 hf do, 11,579 qr do, 768 eighth do, 50 bbls and 650 mats, and from Denia 21,174 hf bxs. With this considerable increase in the supply the market is a shade easier, but so far there has been no considerable decline. There is a pretty good demand, though the buying is generally of small parcels. The transactions embrace 1,600 bxs new Layer at $2.20@ $2.10; 300 hf do, $1.25@1.30; 450 qr do, 67¼@70c; 400 boxes old, $1.80@1.85; 2,800 do new Loose, $2 25@2 50; 1,400 do old, $1.70@2.10; and from the steamers, 4 170 do Layer, 1,300 hf do, 3,700 qr do and 5,000 bxs Loose. We note b sides 80 bales eighth bxs, 60 bales containing 850 flat qr bxs fine fruit, 250 bxs London Layer, and 136 mats new Seedless, on private terms. Valencia are held quite steadily. Sales have been made of 1,600 hf bxs new at 10½@10½c; 600 do old, 7¾@8½c; and 3,500 do new on terms we did not learn. Sultana are in good request, and are firm; sales 400 to 500 bxs at 12@ 12½c; 1,000 do and 2 400 to 2,500 do to arrive at private prices.

Hops—Hops are ruling at last week's prices. We note a sale of 14 bales at 28c. Emmett Wells reports the New York market for the week euding September 29th, as follows:

"The receipts show a very large increase over last week, and medium and low grades are accumulating. The more we see of the new crop the more we are becoming convinced that the proportion of fine Hops suitable for export is deficient. The great complaint exists in the picking. Less care than usual has been observed in this particular, and exporters are disappointed. New York State growers have yet to learn that none but cleanly picked Hops are wanted for export, and that our own brewers dislike to use dirty picked Hops. Many a fine growth of Hops has this year been ruined in picking; Hops that would readily command our highest quotation are unnoticed by buyers from this one cause, and before this season is over we expect to see a much wider range in prices than now exists. The crop is harvested, and it is too late now to give advice on this subject, or for the growers to remedy the evil so far as the '76 crop is concerned; those who have taken pains and picked cleanly will be well rewarded for their extra labor, while others must be content to take any price they can get. Dealers and shippers here are waiting patiently to learn the result of their early shipmeuts to Germany. As we have before remarked, if our Hops are liked there, we shall receive orders right along for all the choice we have to spare, and at good prices. We do not look for many orders from England this season on account of the high price. On the whole we call the market strong, with a good demand for anything suitable for export. Brewers are working up their old stock and will not be likely to come into market for some time to come. Some very fine samples of Washington Territory and California Hops are on the market and are much admired. California Hops are quoted at 33@35c."

Oats—Oats have sold fairly within the range of prices noted last week. We note sales as follows: 300 sks choice bright Feed at $1.70, silver; 100 sks Bay, $1.62½ gold; 350 sks Coast at $1.50, and 50 do at $1.55, half silver; 285 sks choice Feed, $1.70; 700 sks Surprise, $1.75; 300 do Feed, $1.37½, both half silver; 100 do do, $1.35, silver.

Onions—Onions are of wide range in quality and in price, viz: 60@75c per ctl.

Potatoes—The receipts of Potatoes have been large. Half Moon Bays are cheaper, ranging at 60@80c per ctl. Cuffey's Coves are unchanged.

Poultry and Game—Hens and Roosters are lower to-day. Quail are now selling at $1.50@1.75 per doz.

Provisions—Fresh Beef and Mutton are unchanged. Pork is in large supply, but prices are maintained by the brisk demand for packing. The tradein Smoked Meats is active. Smoked beef is a shade lower.

Rye—Holders of Rye have advanced their market to $1.60 per ctl.

Vegetables—There have been a few fluctuations, which are noted in our prices in the tables.

Wheat—In the local market there is something of a block between holders and bidders. We note sales: 1,500 sks Superfine Milling, $1.50; 10,000 do good Shipping, in warehouse, $1.60; 4,000 do do, at Oakland wharf, $1.65; 500 ctls Coast, $1.57½; 500 do, $1.50; 2,500 sks Milling, $1.65; 1,500 do choice dark Coast Milling, $1.50; 1,500 common, $1.52½; 4,000 sks good Shipping, from store, $1.60; 400 do Milling, $1.55; 150 do Superfine, $1.45; 3,000 sks choice Milling, $1.65; 1,500 sks Coast, $1.50; 100 sks ordinary Milling, $1.50; 500 sks milling, $1.57½; 400 do choice do, $1.65.

Wool—Prices are unchanged. We note sales of 225,000 lbs fall at 11½@16½c, according to quality; 25,000 lbs Oregon, eastern and valley, 20@25c.

FRUITS AND VEGETABLES.

[WHOLESALE.]

Wednesday M., Oct. 11, 1876.

FRUIT MARKET.		DRIED FRUIT.	
Oranges Mex. ₱ M	—@—	Apples, ₱ lb	5 @ 6½
Tahiti, do	30 00@35 00	Pears, ₱ lb	7 @ 10
Cal. do	—@—	Peaches, ₱ lb	6 @ 7½
Limes, Mexican, ₱ M	20 00@—	Apricots, ₱ lb	10 @12½
Malaga Lemons, ₱ bx	—@—	Plums, ₱ lb	3 @ 4
Cal. ₱ 100	2 00@2 50	Pitted do ₱ lb	12 @13
do Sicily ₱ b'x	1 75 00@—	Raisins, imported	3 25 @3 75
Bananas, ₱ bunch	2 00@3 00	Cal. Raisins	5 @ 10
Cocoanuts, ₱100	6 00@7 00	Black Figs, ₱ lb	5@7
Pineapples, ₱ doz	—@—	White, do	12½@15
Apples, ₱ box	50 @1 00	Prunes	12½ @17
Apricots, lb	—@—	Citron	28 @ 30
Blackberries case	—@—	Zante Currants	9 @ 10
Cherries ₱ lb	—@—	**VEGETABLES.**	
Plums lb	2 @ 3	Asparagus ₱ lb	10@—
Prunes lb	2 @ 4	Beets ₱ ctl	60@—
Figs	4 @ 5	Cabbage, ₱ 100 lbs	50@ 60
Gooseberries	—@—	Carrots, ₱ 100 lbs	50@ 62½
Huckleberries	—@—	Cauliflower, doz	50@—
Strawber's ₱ lcs	6 00 @8 00	Celery, doz	50 @—
Pomgranatee	—@—	Garlic, ₱ lb	2½@ 3
Raspberries	—@—	Green Peas ₱ lb	3 @—
Currants, ₱ cs	—@—	Green Corn ₱ doz	10@12½
Cranberries bbl	13 00 @14 00	Sm'n'Squash ₱ box	50@75
Peaches, ₱ lb	5 @ 9	Marro'fat Squash	10 00@—
Pears, ₱ bx	50 @1 00	Artichokes, ₱ doz	—@—
do Choice	2 00 @2 50	String Beans, ₱ lb	1½@—
Crab apples, ₱ lb	2 @ 3	Lima Beans	2½@—
Grapes ₱ box	37½@ 50	Parsnips	—@—
Rose of Peru	50@ 75	Shell Beans	1½@ 2
Muscat	40@ 75	Peppers, green, bx	40 @60
Sweetwater	50@ —	Okra	4 @ 6
Black Hamburg	50@ 75	Quoonbers, ₱ box	50@ 65
Tokay	50@ 75	Tomatoes, box	40@ 60
Morocco	1 00@—	Egg Plant, box	1 25@1 50
Quinces	75@1 00	Rhubarb box	—@—
		Lettuce, doz	10 @—
		Turnips, pr ctl	50@ 62½
		Watermelons doz	75@1 25
		Cantelonpes do	2 50@2 75

GENERAL MERCHANDISE.

[WHOLESALE.]

Wednesday M., Oct. 11, 1876.

BAGS.		Sperm, crude	1 60 @1 65
Eng. Stand Wht	11½@12	do bleached	1 90 @2 25
Neville & Co's		Coast Whales	47½@ 50
Hand Sewed	11½@12	Polar, refined	— @ 50
24x36	— @—	Lard	— @1 20
24x40	— @—	Oleophine	— @ 37
Machine do 24x40	— @15½	Devoe's Bril't	38 @ 39
" " 23x40	14½@—	Long Island	— @ 25
" " 22x40	13 @—	Eureka	26 @ 27
" " 22x36	11½@12	Devoe's Petro'm	— @ 42½
Flour Sacks ½s	9 @11	Barrel kerosene	23 @ 25
" " ¼s	6 @ 7	Olive	— @3 50
" " ⅛s	4½@ 5	Downer Kerose'e	— @ 37½
Hessian 60-in	12¼@14½	Elaine	— @ 42
do 45-in	10 @—	Gas Light Oil	23 @ 25
do 40-in	8½@—	**PAINTS.**	
Wool Sacks, 3½ lbs	45 @50	Pure White Lead	9¾ @10¼
do 4 "	50 @52½	Whiting	— @ 1¾
Stand. Grannies	11½@12	Putty	4 @ 5
single seam do	— @—	Chalk	— @ 1½
Bean Bags	7 @ 8	Paris White	— @ 2½
CANNED GOODS.		Ochre	— @ 3½
Ass't'd Pie Fruits in 2½ lb cans	2 75 @ 3 00	Venetian Red	— @ 3½
do Table do	3 75 @ 4 25	Red Load	10 @ 11
Jams & Jellies	4 25 @ —	Litharge	10 @ 11
Pickles ½ gl	— @ 3 50	Eng. Vermillion	—@1 25
Sardines, qr box	65 @ 1 90	Averill Chemical Paint, per gal.	
do bf boxes	3 00 @—	White & tints	2 00 @2 40
COAL—Jobbing.		Green, Blue & Ch Yellow	3 00 @3 50
Australian, ₱ ton	8 75 @ 9 00	Light Red	3 00 @3 50
Coos Bay	— @ 9 00	Metallic Roof	1 30 @1 60
Bellingham Bay	— @ 9 00	**RICE.**	
Seattle	— @ 9 00	China No. 1	7¼@ 5½
Cumberl'd	14 00 @16 00	Hawaiian, ₱ lb	7½@ 8
Mt. Diablo	5 75 @7 75	Carolina, ₱ lb	10 @
Lehigh	—@22 00	**SALT.**	
Liverpool	8 50 @10 00	Cal. Bay, per ton	10 00@14 00
West Hartley	—@14 00	do Common	5 00@ 7 00
Scotch	9 00 @10 00	Carmen Island	12 00@15 00
Scranton	13 00 @16 00	Liverpool fine	13 50@14 00
Vancouver's Isl	10 50 @ 2 00	**SOAP.**	
Charcoal, ₱ sk	75 @ —	Castile ₱ lb	10 @ 10½
Coke, ₱ bbl	— @ 60	Common brands	4½@ 6
COFFEE.		Fancy do	7 @ 8
Sandwich Island	— @ 21½	**CANDLES.**	
Costa Rica per lb	20½@ 21	Grant's	16 @ 16½
Guatemala	— @ 20	Mitchell's	18 @ 20
Java	— @ 25	**SPICES.**	
Manilla	— @ 19	Cloves ₱ lb	45 @ 47½
Ground in oil	25 @—	Cassia	23½@ 26½
Chicory	27 @—	Citron	28 @ 30
FISH.		Nutmeg	95 @1 25
Sac. Dry Cod, new	5½@ 6½	Whole Pepper	14½@ 15
cases	6 @ 7½	Pimento	16 @ 17½
do honeless	8½@ 10	Gr'nd Allsp'ce	@1 12
Eastern Cod	8 @ 9½	do Cassia	@1 50
Salmon in bbls	6 50 @7 25	do Cloves	@1 50
do ½ bbls	3 75 @4 00	do Mustard	@1 25
do 2lb cans	2 40 @—	do Ginger	@1 00
do 1lb cans	1 50 @—	do Pepper	@1 00
do Oil, R. ½ bbls	4 25 @4 50	do Mace	@2 00
Pick. Cod, bbls	22 00 @—	Bowen's Pure Ground ₱ lb	— @ 50
do ½ bbls	11 00 @—	**SUGAR, ETC.**	
Mack'l, No. 1, ½ bbls	11 00@—	Cal. Cube per lb	— @ 12¾
" Extra	— @12 00	Circle A crushed	— @ 12
" in kits	1 90 @2 25	Powdered	— @ 12¼
" Ex mess	3 50 @4 00	Fine crushed	— @ 12
" Ex mess, ½ hs	—@12 00	Granulated	— @ 11¾
Pic'd Herr'g, hx	3 00 @ 3 50	Golden C	— @ 10½
Bos. Sm'k'd Her'g	40 @ 50	Hawaiian	10 @ 11
LIME, ETC.		Cal. Syrup in kgs	— @ 62½
Lime, S'ta Cruz, ₱ bbl	2 00@ 2 25	Hawaiian Molasses	25 @ 27½
Cement, Rosendale, do	2 75@ 3 50	**TEA.**	
do Portland do	4 75@ 5 50	Oolong, Canton, lb	19 @ 25
Plaster, Golden Gate Mills	3 00@ 3 25	do Amoy	28 @ 50
Land Plaster, ₱ ton	10 00@12 50	do Formosa	40 @ 80
MISCELLANEOUS.		Imperial, Canton	25 @ 40
Pulu	—@ 7½	do Pingsuey	45 @ 80
NAILS.		do Moyune	60 @1 00
Assorted size, keg	3 75 @4 00	Gunpo'der, Cant	75 @1 00
OILS.		do Pingsuey	50 @ 90
Pacific Glne Co Neat F't No. 1	1 00 @ 90	do Moyune	65 @1 25
Pure	— @ —	Yng Hy., Canton	28 @ 40
Castor Oil, No. 1	— @ 95	do Pingsuey	40 @ 70
Baker's A A	— @1 15	do Moyune	65 @ 85
Cocoanut	— @ 60	Japan, ½ cheste, hulk	30 @ 75
Olive Plagniol	5 50 @5 75	Japan, lacquered bxs, ½ and 5 lbs	45 @ 67
do Possel	4 75 @5 00	Japan do, 3 lb bxs	45 @ 90
Palm lb	9 @—	do pl'n bx, 4½ lb	35 @ 65
Linseed, raw	— @ 62½	do ½&1 lb paper	30 @ 55
do boiled	— @ 67½	**TURPENTINE.**	
China nut in bbls	65 @—	Eastern	51½@55

DOMESTIC PRODUCE.

[WHOLESALE.]

Wednesday M., Oct. 11, 1876.

BEANS.		Silberts	15 @ 16
Bayo, ₱ ctl	2 15@2 25	**ONIONS.**	
Butter	2 00@2 25	Union City ctl	—@—
Pea	1 90@—	Stockton	60 @— 75
Pink	2 25@2 50	**POTATOES.**	
Sm'l white	1 85@1 90	Petaluma, ₱ ctl	— @—
Lima	1 90@2 00	Salt Lake	— @—
BROOM CORN.		Humboldt	— @—
Common, ₱ lb	2 @ 3	Half Moon bay	60 @ 80
Choice, do	4 @ 5	Cuffey Cove	90 @1 05
COTTON.		Early Rose new	50@ 65
Cotton, ₱ lb	15 @ 18	Sweet	75 @1 00
DAIRY PRODUCE, ETC.		**POULTRY & GAME.**	
BUTTER.		Hens, per doz	7 00 @8 50
Cal. Fresh Roll per lb	30 @ 45	Roosters	5 25 @6 50
Point Reyes	47½@ 50	Broilers	3 50 @4 50
Pickle Roll	32½@ 35	Ducks, tame, doz	7 00 @9 00
Firkin	25 @ 30	do Muscovy	3 00 @—
W'st'n Reserve	16 @ 25	do Canvass	— @8 00
New York	— @—	Geese, per pair	2 00 @2 50
CHEESE.		Wild Gray do	3 00 @4 00
Cheese, Cal., lb	10 @ 15	White	1 50 @2 00
do Old	— @—	Turkeys, Live, lb	18 @ 20
Eastern	12½@ 15	do Dressed	20 @ 22
EGGS.		Quail, per doz	1 50 @1 75
Cal. fresh ₱ doz	42½@ 45	Snipe, Eng., doz	— @—
Ducks'	40 @—	Doves, per dozon	50 @ 57
Oregon	37½@—	Rabbits	1 00 @1 25
Eastern	21 @ 30	Hare, per doz	2 00 @2 50
FEED.		Venison lb	8 @ 10
Bran, per ton	17 00 @—	**PROVISIONS.**	
Corn Meal	27 50 @—	Cal. Bacon, L't, lb	16 @ 17
Hay	7 00 @13 50	do Medium	15½@ 16
Middlings	24 00 @—	do Heavy	— @ 15
Oil cake meal	— @23 50	Lard	14 @ 16½
Straw, ₱ bale	55 @ 60	Cal. Smoked Beef	12½@ 13
FLOUR.		Eastern do	— @—
Extra ₱ bbl	4 75 @5 25	East'n Should's	@ 12
Superfine	4 00 @4 50	Hams, Cal	15 @ 15½
Graham, ₱ bbl	4 50 @4 75	do Armour	— @ 17
FRESH MEAT.		do, Worster's	— @ 19
Beef 1st quality lb	6 @ 7½	do Dupee's	19 @ 19½
Second do	5 @ 5½	do Davis Bros	— @ 19
Third do	3½@ 4	**SEEDS.**	
Mutton	3½@ 4	Alfalfa, Chilo lb	8 @ 10
Pork, undressed	6¼@ 6¾	do California	11 @ 12
do, dressed	9 @ 9½	Canary	2 @ 10
Veal	5½@ 6	Clover Red	— @ 22
Milk Calves	5½@ 7	do White	50 @ 55
GRAIN, ETC.		Cotton	6 @ 10
Barley, feed ctl	80 @1 00	Flaxseed	— @ 3½
do brewing	1 00 @1 10	Hemp	12½@—
Chevalier	1 30 @1 40	Italian Rye Grass	25 @ 30
Corn, White	1 20 @1 22½	Perennial do	20 @ 30
do Yellow	1 17½@ 1 20	Millet	10 @ 12
Oats	1 40 @1 60	Mustard, white	5 @ 6
Milling	1 70 @1 75	do, Brown	3 @ 3½
Rye	1 50 @1 55	Rape	5 @ 8
Wheat shipping	1 55 @1 65	Ky. Blue Grass	30 @—
do milling	1 55 @1 65	do 2d quality	20 @—
HIDES.		Sweet V Grass	— @ 75
Hides, dry	14 @ 15	Orchard do	30 @ 35
do wet salted	5½@ 7	Red Top do	— @ 25
HONEY, ETC.		Hungarian do	8 @ 12
Beeswax, per lb	25 @ 27½	Lawn do	50 @—
Honey in comb	10 @ 12½	Mesquit do	20 @ 25
do Strained	6 @ 8	Timothy	11 @ 13
HOPS.		**TALLOW.**	
New crop	25 @ 28	Crude, ₱ lb	6½@ 6½
NUTS—Jobbing.		Refined	8½@ 9
Alm'd en'd sh'l lb	8 @—	**WOOL, ETC.**	
do, soft sh'l	14 @ 16	FALL—	
Brazil do	14 @ 16	Free	12 @ 14
Cal. Walnuts	12 @ 14	Choice	14 @ 16
Chile Walnuts	11 @ 12½	Northern	17 @ 20
Pecanuts	17 @ 18	Burry	10 @ 13
Peanuts per lb	8 @ 9	Oregon Eastern	21 @—
		do Valley	25 @—

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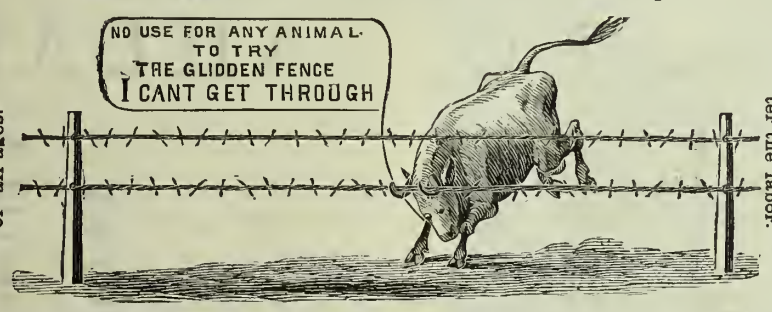
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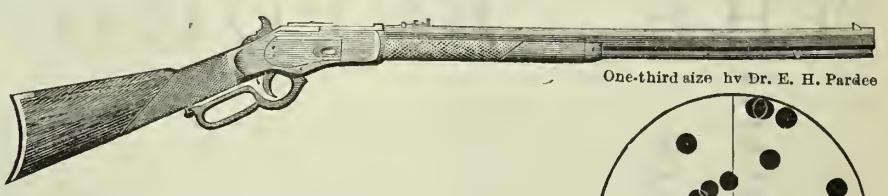
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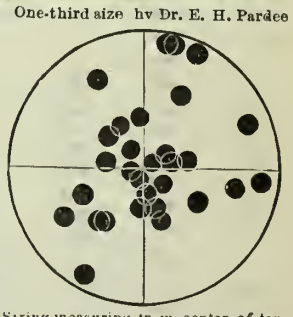
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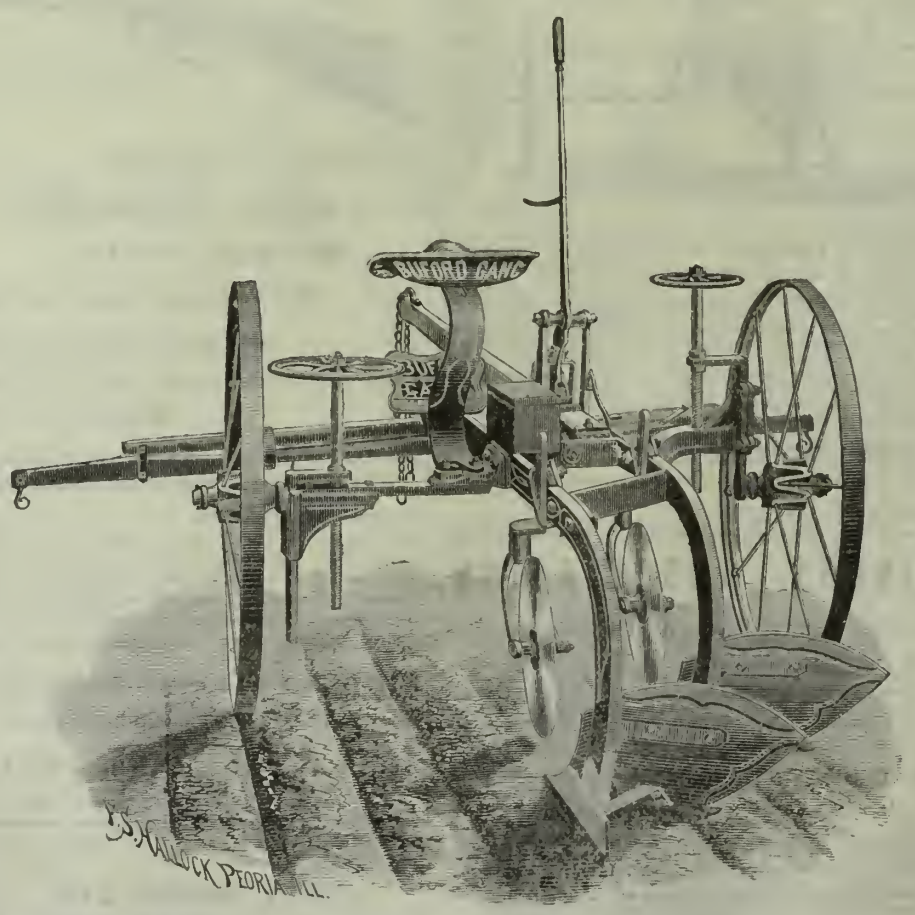
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PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, OCTOBER 21, 1876. [Number 17.

Red-Headed Wood-Pecker.

The red-headed wood-pecker, shown in our illustration, is well known throughout the United States. They prepare their nests in the large limbs of trees, adding no materials to the cavity which they smooth out for the purpose. Sometimes several perforations are found in the same tree; but living trees are seldom occupied by them. The same tree is employed for years in succession by a pair of these birds. The eggs, usually six in number, are white, marked at the largest end with reddish spots, in which last particular they differ from all others of the genus.

The mocking bird alone exceeds this woodpecker in gaiety and frolic. It everywhere finds abundance of food and facilities for raising its broods. It is not much afraid of man, and will retreat but a short distance at a time from him, or even simply run around a tree or stalk, and peep from behind it at him; and this notwithstanding that man is its most dangerous enemy. So abundant and fearless are they at times in the Eastern States that a hundred have been shot in a day upon a single cherry-tree; for they not only feed upon the ripening fruit, but destroy immense quantities, even to the stripping of them. Pears, peaches, apples, figs, mulherries, and even peas are thus attacked. The corn, also, hoth when young and juicy and when near maturity, is a subject of their depredations. They also invade the ahodes of pigeons, martins, and other birds, for the purpose of sucking their eggs. When their hunger is satisfied they are exceedingly playful, chasing each other from tree to tree in curving sweeps, or following insects upon the wing. When they alight upon the ground they are quite agile, securing with ease the beetles seen from their perch. When the fruit is all gone their facility in detecting insects under the bark of trees is remarkable. Alighting upon the trunk one of them will stand motionless for a tew moments; then he will strike the tree with his bill and again listen until he hears the motion of an insect or larva within, when he perforates the bark and devours his prey. In the season of ripe fruits their flesh is esteemed by many as rich food.

As a means of protecting fruits a bare pole is placed beside a tree, and reaching a little higher than its summit. Upon this the bird alights by preference, when a blow given to the pole below will produce such a vibration as will cause the hird to fall dead. In this connection we notice that Mr. Ralph Carr Ellison, of Durham, England, in an English journal, stating his success in expelling birds during the fruit growing season from his gardens by means of common cheap fire crackers and squibs, says: "My gardeners make use of a few, in different quarters of the ground, early in the morning; one or two occasionally during the forenoon, and then a more liheral discharge at three or four o'clock in the afternoon, when the birds again desire to feed. The sulphurous smoke that issues trom the smoldering paper long after the reports are over deters the enemy hy the scent of gunpowder and fear of fresh explosions far more effectually than would be supposed.

Plows.—The quick coming of the plowing season is awakening the plow trade. M. C. Hawley & Co. make a fine show in our advertising columns this week of the implements they sell and the excellence which is claimed for them. Every one who needs plows should read their statement carefully.

A Twenty-eight-Foot Header.—Dewey & Applegarth, on their ranch near Plainsburg, Merced county, ran the largest header this year of any we have on record, cutting a swath 28 feet wide. Its work averaged 66 acres per day. The machine is one of their own construction.

On File.—"East and West," P.; "How do you Do?" N. J. M. S.; "In Memoriam," Denverton Grange. We receive just as we go to press a letter from W. A. Sanders on "Raisin Grapes" in answer to several enquiries. It will appear in our next.

A Parasite on Cockle Burrs.

We find the following in the proceedings of the San Francisco microscopical society:

C. Mason Kinne, Esq., Secretary—Dear Sir:—I send today, for the society's cabinet, a few leaves of the *Xanthium Strumarium*, a plant well known to the stock men under the name of "cockle burr." This plant attains a hight of from two to three feet, with leaves somewhat resembling the sunflower. The burr, being something over one-half an inch in length, is attached to the stalk, and in the autumn is easily detached, clinging to he hair of animals to such an extent as to



RED-HEADED WOOD-PECKER.

prove a great source of annoyauce to stock breeders. You will observe upon the under surface of the leaves many dark brown spots, in some instances no larger than a pin's head, in others exceeding in diameter one-fourth of an inch. They may he found at the present time in the greatest profusion throughout the valley of the Sacramento. In many localities scarce a leaf may be gathered which is free from them. These spots are formed by the aggregated spores of *puccinia* (a coniomycetous fungus), growing parasitically upon the plant.—H. W. Harkness, M. D., Sacramento.

Cheer up, *Puccinia!* Take courage, you precious little member of the coniomycetes! You have chosen a queer camping ground, but we honor you in it. You belong to a most denounced and berated province of the vegetable kingdom, but in you lies the possibility of making your class memorable for one good deed at least. You are a fungus and your name is a disgrace. You are born into a family which the world knows but to hate. Yours is the chance to redeem the name and turn hate into appreciation. You have pitched your tent upon the cockle burr. We pray you, burrow deep. Let your piercing mycelium penetrate each joint in the armor of that vicious pest of the farmer. Lay you hold upon the leaves and suffocate the weed, or extend your grasp until you turn the sharp quills of the fretful burr into downy feathers. And then, gentle fungus, we beg you seek the threatening thistle. Spare not the lofty annual nor the quickly spreading wretch from Canada.

The knowledge of you, little ally of man in the warfare against weeds which has existed since Eden, fills the mind with thoughts of thanks. How often man has intimations that he fights not single-handed against the hardships which do him environ. How great admiration is evoked by the thought of the balancing of good and evil in the affairs of life. How consoling sometimes is the thought of the poet: "Big fleas have little fleas to hite 'em," etc.

"Tenbroeck's" average in his wonderful four-mile race against time in Kentucky, a few days ago, was one mile in 108 15-16 seconds, which is at the rate of about 33 miles per hour.

Bag Ringers in a Box.

Our market review has contained from week to week notes of the rise, progress and decline of what has been known to different authorities as the "bag ring" and the "bag pool." It matters little now whether it be called a "ring" or "pool;" for if "ring" it is broken and if "pool" it has run dry.

We have predicted the complete lack of gain which has resulted from the combination; in fact we believed that there would be loss to those who tied themselves up in it, but we are somewhat surprised to learn that the ostensible heads of the concern are in chancery and unable to meet their obligations. The facts of the case are stated by the *Alta* as follows:

"Muecke, Vietor & Co., importers and commission merchants, and agents for the North German Lloyd steamship company and Germanic Lloyd, have suspended payment. This reverse is traceable to the prominent part which the above named firm has taken in the combined effort of several houses to control the supply of grain bags in this market. Basing their calculations upon the high estimates of the grain crop which prevailed early in the season, importers generally exerted themselves to meet the anticipated extraordinary demand for bags. A heavy importation, added to the large stock carried over from the previous season, and the great falling off in the previously supposed requirements, brought the bag market to a condition of weakness which necessitated united action on the part of the leading importers to sustain prices if possible and thereby protect themselves against loss. In several instances outside dealers had been compelled to realize at prices below the current rates, and these transactions had a strong tendency to cause a serious break in the market. Three or four mercantile firms entered into a combination, hought up all the stock of consequence and fixed a limit to prices. As before stated, the importation has been heavy and the requirements falling far below what was anticipated, left a burdensome stock to carry, and the season being so far advanced precluded the possibility ot realizing on the same to any extent. The misfortune which has befallen the house of Muecke, Vietor & Co., while much to be regretted, serves to illustrate the dangers which beset those who deviate from the well-beaten path ot mercantile pursuits."

Yes, it is to be regretted that the world is full ot misfortune, and while we have no heartless rejoicing for any one's mishaps, still there is poetic justice in retribution overtaking the upholders of such a narrow, selfish policy as that which aimed to corner bags and embarrass the shipment of grain from this port. It will prove a wholesome lesson to those who are so eager to inflict upon our trade and commerce the ugly policies of the stock market. It shows plainly that there is a right and wrong in trade, and that, as in the present case, there is quite a chance that grasping will overreach itself and work injury, not to those whom the scheme aimed to squeeze, but to those who laid the unholy plans.

Stock Sale.—The sale of Mrs. Daniel's horses and cattle at Lakeville, Sonoma county, on Tuesday, was largely attended despite the pouring rain. The stallion "General McClellan" was struck off at $2,200, and a bay stallion 3 years old, his get, at $750; a four-year old chestnut mare by "McClellan" sold at $1,560; bay mare "Fannie," also by this sire, $800. The other horses ranged from $600 to $100. At the thoroughbred Devon sale 22 bulls, cows and calves brought $1,275, an average of $57. They were nearly all purchased by Jesse D. Carr, of Monterey, for his large ranch in the north. The sale was by Crego & Bowley.

California Honey in New York.—A press dispatch from New York city, dated October 14th, says: J. S. Harbison, of San Diego, California, arrived in this city yesterday with some car loads of honey, each car containing 20,000 pounds. This vast aggregation of hee labor was taken from Harbison's apiaries. Harbison says notwithstanding the great crop he has brought to this market, he will probably not realize more than $10,000 after deducting expenses and interest on the capital.

CORRESPONDENCE.

Description of Santa Cruz County.—No. 2.

EDITORS PRESS:—The ranch and stage station known as "Mountain Charleys" deserves more than a passing notice, being the highest on this coast, at least south of San Francisco. Some 27 years ago Charles McKearney located his cabin and claim on the highest point of the Santa Cruz mountains, and where the old trail from Santa Cruz to Santa Clara, known as the "camino del Santa Clara," crossed the summit and commenced its descent on either side. This trail was traveled three-fourths of a century by the inhabitants of the upper and lower missions. Such was the amount of travel upon this route that the pathway was worn deeply into the soil its entire length, and where it passed around points and other places where it was rocky, the innumerable unshod feet of the pack mule, patiently bearing along his load, as well as those of the gaily caparisoned horse stepping lightly, and proud of his trappings and "rider with ringing spur,"—cut in the hard surface a path equally distinguishable, and nearly as deep as in the more yielding clay. And now, although abandoned for the last 20 years, and in its once dusty track large trees are growing, its route can be as easily traced as a traveled turnpike. Over this beaten way passed some of the most celebrated and important characters of California's earliest history, and while, during the day, the hills, glens and deep "resounding forests" echoed back the laugh or song of the gay cavalier as he chatted with his companions or sung the praises of some dark-eyed beauty the night reverbersted with the angry growls of the California lion or grizzly bear as he met his antagonist in desperate encounter—neither willing to surrender his "right of possession" in this "cosmopolitan highway." The writer has listened many an hour to tales of danger and of narrow escapes from wild Indians and grizzly bears related by Californians who have now passed their three score years, and which occurred while passing over this road in their boyhood days. Banditti, Indians and grizzlies often made this a "via dolores."

"Mountain Charley,"

In his early settlement, was a good looking, gay and laughing Irish bachelor. At first he kept a "wayside inn," and hunted deer for the San Francisco market, but afterwards engaged in stock raising for many years. He occupied his time in trading, visiting or hunting, as his interest or inclination dictated. He was then, as now, a man of much energy of character and proverbial for kindness of heart. The weary, sore-footed traveler was sure to find, under his hospitable roof, a refuge and rest, and when, refreshed, he again started on his way, the words of cheery dismissal rang pleasantly in his ear and danced in his heart many a mile. But the redoubtable hunter could not escape the fate which had overtaken so many of his fellows—the fate to be crushed and crunched by the monstrous jaws of the infuriated grizzly. Going out to hunt one day with a companion he met an enraged bear, who, throwing him down, tore a part of the very skull from his head and left him with the palpitating brain exposed to sight, but after suffering what would have killed an ordinary man, he recovered. But with all this mutilation, from that to the present time he has been one of the most active and energetic business men of this county. Marrying soon after his recovery, he has a large family and is in easy circumstances, being a successful business man. The little cabin on the high ridge has given place to a spacious mansion—not exposed to the winter storms of the Pacific, but nestling in a little sheltered nook, protected from every wind by the higher hill and a beautiful grove of deciduous oak. This little vale, though some hundreds of feet lower, on the south side of the mountain, than the old cabin, is yet on the very summit of the mountain. In the same depression, a few rods from the house, is a little lake of water some 100 yards in circuit, and which scarcely diminishes in quantity of water during the summer. This lagoon is the designated "northwest corner of the Soquel Augmentation grant." In the absence of his actual statistics I think "Charley" has 200 or more acres under fence and more or less cultivated on this ranch. All the cereals and most vegetables grow well on this mountain, and all along the summit, both east and west, there are other good farms, well cultivated and producing all kinds of grain and fruit, especially the peach and grape. Charley has one of the oldest vineyards in the county, from which he has made an excellent wine for years past. This vineyard is on a terrace lower and south of his old cabin, and higher than his present house, which is still further south. The largest cultivated portion of his farm lies on the summit to the northwest, both sides, and extends nearly a mile to a lagoon on the same. This is the highest part of these mountains. A road runs along the crest, connecting Charley's with the Bear creek road. As you pass along this road on the crest you may look either side—towards Santa Clara valley on one side and the Santa Cruz and the ocean on the other, and you will have one of the most beautiful and grand views seen upon this coast. On the Santa Clara side you see that city and San Jose, Alviso and all the towns of Alameda county, the bay of San Francisco retreating out of sight to the west, while beyond all rise the mountains lying between this and the San Joaquin plains, full of graceful peaks, the highest of which to our extreme right is Mount Hamilton, now forever consecrated to its use and fame by the recent death of Mr. Lick, who, like Lycurgus, the Spartan, obtaining from his countrymen a pledge to obey his laws during his absence, and making that obedience perpetual by never returning, so by his death has Mr. Lick made it forever impossible to divert the intent of his magnificent gift of $700,000 for an astronomical observatory on this lofty peak.

On the other side of this view you have the whole county of Santa Cruz lying below you and in view, except that portion I have called the "Coast valley," and lying west of the San Lorenzo mountains. Almost every hill, valley and stream is clearly mapped before you, while the Bay of Monterey lies midway in front, looking, in the distance, like a placid lake, surrounded on every side but one by a gray beach of sand, itself separated from the water by a broad belt of foam. To the extreme left, in the view, the plains of the Salinas and the more distant mountains below Monterey are seen, while to the right the Pacific ocean lies, extending to where the advancing sky and its waters meet.

When you leave the summit of the Santa Cruz mountains and descend into the gulches on the south side, you will find them filled with redwood high up the mountain sides, the forests broadening and thickening as they descend on the streams below.

At this ranch of Mountain Charley's begins the

Celebrated Mountain Turnpike,

Of which so much has been written the last 20 years. It was built by a stock company of 2,600 shares of $25 each. The charter was granted in 1856, and continues for 20 years. In consequence of delinquencies on assessments levied for alterations and repairs on the road, and the indifference of a large number of shareholders, amounting to almost an abandonment of their claims in the stock, Charley bought in most of it at a low rate, and, finally, all of it, for 50 cents on the dollar. Now having the entire control, he made some new routes of better grade and improved the road greatly. For several years he has made no alterations, except the one I mentioned in my last article, viz.: changing the grade and shortening the distance from the county line to his house. I have been more particular in my description of this mountain ranch road and person, from the fact that there is no other place or person in this part of the State more noted than these I have described.

The toll gate is at Charley's house, and immediately the road begins to descend. Passing through a beautiful oak grove it approaches the steep mountain side. Then sweeping to the left by gentle curves and an easy grade for about two miles, where it strikes a narrow ridge running down the mountain and dividing the head waters of Bear creek from those of the Zazante, the road following this ridge for several miles to the crossing of Bear creek. This first and upper part of the road is cut into the precipitous sides of the mountain, which rises still far above the road and descends below it thousands of feet into canyons filled with timber of immense size, while the intervening descending ridges between these canyons are grassy and covered with scattering oaks. Where the road first leaves the grove—when it leaves the toll gate—is the first view of the ocean and its adjacent coast. From some points, along these curves in the road, may be seen, far to the right, beyond two branches of the Zazante creek with a high mountain ridge running between, what is known as the

Hattler Ranch or Vineyard.

This vineyard is on a high fertile piece of table land, gently descending to the southeast, and surrounded on all sides but one with steep, precipitous sides. At the upper and highest end is a lagoon fed by springs from the ridge which rises beyond and extends to the top of the mountains. There are two or three hundred acres in this table. The place was almost inaccessible until roads were built in to it at heavy expense. Some 18 years ago the writer with some friends attempted to visit it on horseback. Starting from "Charley's" road we struggled across the first canyon with risk to life and limb, up the steep mountain sides and over its summit until we became so entangled in the dense chaparral that it was almost impossible to move in one direction, and to make the matter worse, we had no water and under a broiling sun. We must "storm the ramparts or perish," but perish was was not what we came for, and so we did the other thing, and "stormed." After great struggling through and over the brush, we succeeded in course of half a day in reaching the last gorge, a mile beyond where we first encountered the brush. Here we left our horses and descended into the deep canyon by letting ourselves down the steep sides by clinging to vines and boughs of trees growing in the sides of the mountain. Having reached the bottom and the water, we drank until we should have shared the fate of the fox, who, having passed through a small hole before he had dined upon fowl, and there being no other way of egress from his dining room, found himself in a "fowl" condition, and unable to "take a walk"—if we had possessed only a small hole to have traveled through, but as it was we had up or down the broad canyon, or either of its steep mountain sides to relieve us from our dilemma, and we concluded not to "never go back" but to "retreat in front;" so, being in "trotting condition," we started up the side towards our "first intention." During our ascent we came to a slight depression made by a land slide and slightly covered with bushes, where we found a number of grizzly bear beds, the dust of which was still shimmering in the streaks of sunlight between the bushes, having been stirred by the hasty retreat of the bears just before us. Every one of us after that sight thought "grizzly" for the rest of the day.

Watsonville, Oct. 10th, 1876. C. N. W.

Watsonville Items.

Potatoes

EDITORS PRESS:—The digging of the early and middle kinds of potatoes in the valley of the Pajaro is pretty nearly finished, and the harvesting of the late ones will commence in a week or so. The yield of the early kinds has been a very good one, being scarcely at all affected by the blight. These kinds are the White, the Russet, (a seeming cross between the white and the red) and the Jersey pink eyes. All these have yielded from 50 to 75 sacks to the acre (100 being an unusually good yield in a good year), and are generally of good size and quality. They sell at retail here for one dollar per sack. In regard to the late potatoes, no one can yet know what will be the yield, but as far as I can learn the impression is that the yield will be small, varying from a few sacks to 75 sacks per acre. As soon as I can get reliable data, I will inform you in regard to the matter.

Beans and Peas.

The bean crop is turning out better than at first supposed it would. Mr. Frank Martin, living two miles from Watsonville, on the Monterey side of the river, has 60 acres of the large white flat bean, which has yielded one ton to the acre, and he informed me that the other kinds will yield equally well. Not as many as usual have been planted, but what have been will yield a fair average crop.

Mr. M. has several acres of lentils. As far as I can learn they were planted or sown in this valley last year as an experiment, to furnish a soup bean for the San Francisco market. They produced two tons to the acre, and sold for a good price, proving a success. This present year there has been planted in the valley 15 acres all told, and will yield 60 tons, which as supposed will lessen the price in market. Mr. Martin has also, as an experiment, imported from the Western islands a pea for soups, which is entirely new in this State. He spells the name of it "chsros," and pronounces it as if spelled "chisro." You or some of your readers may be familiar with it, but it is supposed here to be entirely new. It is still growing, the vines being now eight feet long. Mr. M. thinks that it will produce enormously. He proposes to have the pea tested fully and if as good in this State as in the islands he will put the seed into market. It will be a month yet before it will mature and he invites me to then examine it and report to you, which I will do. He has also a garden pea which grows and produces green peas the entire season. He does not know its name, for being Portuguese he calls it by the name they give the common pea.

Apples

Are very abundant in this valley and are very large and of good quality. They are much larger here than they are in the region of Santa Cruz, where the fruit is smaller than usual, with a few exceptions. In that portion of the county apple trees have not seemed to be as healthy as usual. It is supposed to be produced by the superabundance of water around the roots, caused by the excessive rains of last winter; and the difference in favor of the Pajaro valley as to results, I think, arises from the fact that here the subsoil is sandy or gravel and therefore more porous, and the water was drained off from the roots of the tree.

The S. C. R. R. Bridge

Across the Pajaro river at this place is drawing towards completion. It is a "Howe truss" bridge of three spans, 150 feet each, with approaches of trestle work 90 feet on the west and 300 feet at the east end. The trestles are composed of four piles driven three feet apart and 28 feet into the ground. The rows are 16 feet apart. The foundation of the piers—which are four in number—is composed of 40 piles driven from 30 to 45 feet in the sand at the bottom of the river. There are four rows of these piles and 10 in a row, making the 40 as above. The two outside rows converge to a point at the upper and lower extremes, so as to form a breakwater for this foundation of the pier, and is 45 feet from point to point. The tops of the piles are cut off 18 inches below the surface of the river, then coped, timber-floored and all drift bolted together. The length of the pier at the bottom is 22 feet, and 21 feet six inches at the top. It has 10 posts—upright and inclined—at each end, has three ties at the top, together with middle and foundation ties. All the timber is 14x14 inches. The whole pier is strongly bolted and very substantial. The bottom of the truss timbers are supposed to be four feet above high water. This bridge when done—which it will be by November 15th—will be one of the finest and most substantial in the State, creditable alike to the railroad company and to the skill of their engineers and mechanics. The building engineer is E. Shepherd, Esq., General Superintendent D. M. Large, and Sub-superintendents S. A. Carter, Logan and A. Cloud. C. N. W.

Watsonville, Oct. 10th, 1876.

East and West—No. 3.

(Written for RURAL PRESS by PHILMORE.)

There are various opinions in regard to the difference in flavor of the same varieties of fruit grown in California and in the Eastern States. Many contend that apples, pears, peaches, plums, etc., are not as highly flavored here as there, and were are half inclined to the same opinion ourself, notwithstanding upon different occasions we have tasted the two together and have given the preference to that raised here. Something like four years since we were favored with some very fine specimens of the different varieties of apples and pears from one of the best orchards in the Eastern States, the fruit being the choicest our friend could select, especially that the comparison might be made. The fruit was received in splendid order in about eight days after being plucked from the trees. Other fruit of the same varieties was purchased from a fruit stand without being especially selected. Both were set before our friends with a request that they give their opinion, which they did, and in every instance in favor of the California fruit without knowing which it was. This was unfavorable to our preformed opinion, and we believe that if all our fruits were brought to the test the result would be about the same. Some of the smaller fruits, as strawberries, blackberries and huckleberries, are, as we believe, vastly inferior to those grown in the East. But the size and abundance of the two former in a measure compensate for the quality. With us strawberries are scarcely a rarity, for from April to December we have them so constantly that we really tire of them, and they are with us so soon again that we scarcely miss them. Blackberries are also prolific and plentiful, but we have thought somewhat insipid. As for huckleberries, they are almost worthless. The few that are brought to market are scarcely worthy of the name. One thing must be borne in mind, all fruits mature much earlier here than at the East. Eastern winter apples are in their prime here in September and October, especially such as the Rhode Island Greening and Roxbury Russet, to say nothing of the hundred other varieties that were late keepers in the East. Some few, such as the Pippin and Baldwin keep better, but usually all are in their prime here from one to three months earlier than the same varieties are at the East. Indeed, in different localities within a few miles of each other there is a great difference in the appearance and ripening of the same varieties.

We remember many years ago starting from the northern part of the State of New York, about Lake Ontario, as late as the middle of December, and leaving the orchards laden with fruit, red, green and yellow; in fact not half the crop had been gathered. Traveling southward into the northern part of Pennsylvania, within one hundred miles we found that what little fruit remained on the trees had been frozen and spoiled long before, while that which had been gathered in season was very hard and much smaller than the same varieties grown around the lakes. We have noticed a very great difference in this State between fruit grown in the valleys and that from the foothills. We give preference to that raised in the mountains, every time. It is not only finer in flavor, but often much larger and more perfect than that grown in the valleys.

What a difference between fruit raised in California and that raised in the Eastern States. Here, every apple or pear is perfect. We have never yet found a bug or worm to mar or poison them. There you can scarcely find one that has not a worm gnawing at the core. Even the fairest are likely to harbor the rascals, while many are entirely disfigured and ruined before they are half-grown. We believe the greatest care should be taken of our orchards to prevent the inroads of such pests, for should they once get fairly established, good-bye perfect fruit.

[We regret to add to what our contributor so well says, that already the larva of the coddling moth, or apple worm, has appeared in our fruit, the first of it coming to our notice this season. As "Philmore" says, the greatest care should be taken to prevent their spread, In our issue of August 13th, the insect and the remedies and precautions were fully described.—EDS. PRESS.]

THE VERNATION IN OAK LEAVES.—The proceedings of the Academy at St. Louis contain a paper by Dr. George Engelmann on the oaks of the United States. The discovery is announced that oaks have different ways of having their leaves folded in the bud—vernation. In some the upper side of both halves of the leaves are applied together in the growing bud. In other species the upper surface of the leaf is convex—that is, the edges are turned a little down or back. Another class has the leaves revolute, or spirally rolled back toward the midrib. The discovery is of vast importance to students of quercology, as it enables them to decide whether certain forms are hybrids or not, and in other ways to fix the limit of species. Another interesting discovery of Dr. Engelmann is that those oaks that have lobed leaves when young, have more entire leaves as they become aged. On the other hand, those are the most lobed with age, which have entire leaves when young. It is a singular inversion of character. Dr. Engelmann has, also, for the first time in botanical classification, made use of the characters of old bark in oaks in determining the boundaries of

The Vineyard.

California Raisin Grapes.

A reporter for the San Francisco *Call* has made a visit to Mr. West's vineyard at Stockton, and has gathered the following interesting information concerning raisin grapes now cultivated in this State:

The reporter's first visit was to Mr. W. B. West, of Stockton, who is probably doing more to introduce and propagate the most approved varieties of raisin grapes than any other man in the State. He has received several shipments direct from Spain and Southern France, and is now engaged in thoroughly testing all the Spanish varieties that have either been imported by himself or others. He has already decided to his own satisfaction which grape produces the best raisin.

Muscatel Gordo Blanco.

Mr. West, without hesitation, places this variety at the head of the list. The essentials of a first-class raisin grape are large size, thin skin and small seeds. The Gordo Blanco fulfills all these conditions, and the only fault that can be found with it is, that it is not a very heavy bearer. However, it is the favorite in Spain, and produces the most expensive raisins made in that country. James Busby, in his work on the Spanish vineyards, says of it: "This variety differs from the small Muscat, by the great size of the stock, by its branches, which are also thicker, and of a yellow reed-like color, by its berries, which are a little gilded, and of 11 lines (a line is one-twelfth of an inch) in length by 9½ in thickness. This is the grape from which is made the best Malaga raisins." It is also the favorite raisin grape in Australia, according to a work entitled "Agriculture in South Australia," published in Melbourne, from whence cuttings could doubtless be obtained in quantities.

Uva Larga.

All the authorities agree that the best raisin grapes belong to the Muscatel family, which includes a considerable number of varieties, all resembling more or less the Muscat of Alexandria. Another variety of this group, utilized quite extensively for raisin making in Spain, is the Uva Larga, which was first brought to this State, we believe, by Mr. W. A. Sanders, who considers it the best raisin grape. It is a long white variety, of which Busby writes as follows: "This variety is also employed at Malaga and its environs in making raisins. It is called Larga from its long shape, the berries being 10 lines in length and only 6½ in thickness. It is a free bearer, and is said to make a good mixture with the Pedro Ximenes for wine." In another place the same author, writing of the vineyards in the vicinity of Malaga, says: "There are three distinct sorts of raisins. First, the Muscatel, which are the finest, and are always packed in boxes of 25 pounds and half and quarter boxes, containing respectively the half and quarter of that quantity. Second, the Bloom raisins. These are prepared in a manner in every respect similar to the Muscatel, but from a different grape—a very long grape, called in the country Uva Larga. These are also generally packed in boxes, but sometimes in casks. Those in boxes are also called 'bunch raisins;' the others are generally of an inferior quality, and separate from the stalks. Third, the Lexia raisins, which are packed in casks or grass mats called 'frails.' These raisins are of an inferior kind, and require to be dipped in lye (lexia) of wood ashes before drying." In order to illustrate the difference in the quality of the three kinds, he gives the prices at which they are sold: "When Muscatels are 40 reals or $2 a box of 25 pounds, Blooms are about 30 reals and Lexias only from 24 to 28 reals per quintal of 100 pounds." He adds, in regard to the Muscatel Gordo Blanco, that it does not succeed in the interior, and, therefore, that all the Muscatel raisins are made within from two to four leagues of the coast. The Lexia raisins, which are used for puddings, etc., are made in the interior.

Malaga Raisin.

Mr. West, in an article published in the Fresno *Expositor*, says: "This variety has proved to be an excellent bearer, very sure to produce a crop. It is a sweet, pulpy grape, of not very decided flavor. The raisins will not equal the Muscatels in flavor, but are very good. They can be produced at my place at a much less price than the former."

Muscat of Alexandria.

This is undoubtedly the most extensively cultivated raisin grape in the State at the present time, and in an enumeration of varieties, therefore, it deserves more than a passing notice. The grape is too well known to require description. It is of good size, pulpy, and makes a good flavored raisin. The objections urged against it are its large seeds and thick skin, making it long in curing, and its liability to blight in setting. Mr. West says it is a poor bearer with him, giving but four tons to the acre, while in locations better suited to it the yield is double that quantity. Mr. Busby says of it in France, where it is known in some localities as Panse Musquee: "It is seldom preserved for raisins in Provence, as they find it difficult to dry, owing to the thickness of its skin. Negrel Ferand says, that though less cultivated than the common Panse, it is more worthy of attention, only that it frequently blights in flowering. The remedy which he suggests for this is to prune it long. He adds, that if cultivated with care, its raisins would rival the best of Malaga; but it is questionable whether the degree of heat at Roquevaire is sufficient to dry it perfectly. The acreage in the State devoted to the Muscat of Alexandria is quite extensive, and it will for some years to come be the principal raisin grape. It succeeds well in many localities, and with careful culture and pruning, on rich soil grows sufficiently large to make a good raisin. It shrinks less than most varieties in cultivation here, requiring, according to different localities, from two to three pounds of grapes to one of raisins, the latter being the more common estimate.

Cannon Hall Muscat.

This is another grape closely allied to the above that has been used to some extent in this State for the production of raisins. It is a more vigorous grower, has larger berries, and is preferred by several growers to the Muscat of Alexandria. M. R. Miller, of Pleasant valley, Solano county, last season shipped several tons of good raisins to this market made from this grape.

Fiher Zagos.

This variety was imported several years ago, and has been extensively distributed by B. N. Bugbey, of Folsom. Dr. Chandler, of Sutter county, is one of the largest growers of this grape in the State, and is reported to be curing this season 240 tons, from which he expects to make 80 tons of raisins. It possesses the advantages of having a delicate skin, few seeds, is easily dried, has a good flavor, and is very productive. On the other hand, its small size unfits it for a good table fruit. There is little doubt, however, that it will continue to be a favorite cooking raisin. Mr. West says: "It makes a small, delicate raisin, which can never sell for a high price; but still is very sweet and productive. It will ripen early, has been cured in 12 days, and might be made to pay quite as well as a grape of higher grade that requires more time and labor to perfect." It is said to yield from 7 to 10 tons per acre.

White Malaga.

This is a grape that is in some respects well fitted for raisin making. It is of good size and the seeds are small and few in number. Mr. West writes of it as follows: "The White Malaga is a large, loose-growing grape, wonderfully productive and makes a fair raisin. I am informed by a reliable person that he has grown ten tons of this grape per acre." G. W. Swezy, of Marysville, cultivates it quite extensively, and the last season shipped to this market several tons of very good raisins made from it.

Panse or Passe.

In Provence, south of France, raisins are produced to a limited extent, from two varieties of grapes, one of which is known as the Panse or Passe. Busby writes of it as follows: "This is the grape of which the best raisins of Provence are made." The bunches are large, the skin of the berry is tender. M. Negrel Ferand says that this is a very strong and vigorous vine, which requires a rich soil to give it all the development of which it is capable. Placed in these circumstances, it produces abundance of grapes of an extraordinary largeness, which are excellent both for eating and preserving for winter. It vegetates very early; requires to be pruned rather long, and succeeds perfectly on the trellis. In another place he says the raisins of Provence approach in price very near to those of Malaga. The first quality is made from the Panse, a largish white grape, but by no means so large as some others. The skin is rather fine than hard; the bunches are sometimes very large, although M. Brest informed me that they are reduced in drying to one-fourth of their original weight."

Arignan.

The second quality of Provence raisins are made from this variety. "This grape," says Busby, "is also dried for raisins, but being much smaller than the Panse, the raisins bring a third less in the market. According to Negrel Ferand, it is an ancient vine, and yields a very sugary grape when cultivated on light, dry soils. It is mixed in the proportion of a tenth with the Muscat grape to make Muscat wine." Again, he says the second quality of Roquevaire raisins are made from the Arignan. They are equally as well flavored as the Panse, and keep well, but are smaller.

Sultana or Seedless.

This raisin is imported into the country in considerable quantities from Turkey. It is the product of a small, white, seedless and very sweet grape that has for several years been cultivated to a limited extent in this State. It is grown to perfection on the grounds of Mr. West, at Stockton, and of Dr. Strentzel, near Martinez. The article in the Fresno *Expositor* says: "The Sultana or seedless is a good bearer, although not so abundant as the White Malaga. It is small and dries very quickly." It ripens early, and it dries so readily that it is well adapted for cultivation in the cooler counties, like Sonoma and Napa, where most grapes are rather late in ripening. Raisins have been made from it in this State fully equal to the best imported.

Zante Currant or Corinth.

The Zante currant is an important commodity in the grocery trade of the country, and should be produced in California in sufficient quantity to meet the requirements of the whole Union. The principal supply comes from Zante, Cephalonia and other Ionian islands, and the Morea, though a small quantity is produced in Spain. There are two varieties of grapes from which the currants are made, namely, the White and the Black Corinth, both of which thrive in most parts of the State. A sample prepared from the former by Mr. West was submitted to one of the leading grocers of this city, who was so struck with the superiority of the fruit that he unhesitatingly offered 12½ cents per pound for a large quantity, though the imported currants were selling at the same time for eight and nine cents per pound. Mr. West writes as follows of this variety: "It is always cheap, but it can be grown at quite low rates. If some one would produce them in large quantities, and use anything like care in curing them, a much better price could be obtained. No housekeeper or baker would use the dirty, gritty, sour, partially rotten products sold as currants after seeing a clean, well-cured article. There would be but few currants used if the housekeeper could see, as I have, the dirty place upon which they are dried, and the beings who handle them."

We have now mentioned most of the leading varieties of grapes from which raisins are made. The Gordo Blanco, Uva Larga, Panse and Arignan have only recently been imported, but the prominent position they are known to hold in the great raisin-producing regions of Europe is a sufficient guarantee of their excellence. The first-named two have fruited in the State this season, and are unhesitatingly placed by competent authorities at the head of the list as raisin grapes. All the other varieties mentioned have been produced here in quantities for several years, and have all been sufficiently tested to guide the cultivator in making a selection. There are still others, more or less known, including the Flame and White Tokay and Rose of Peru, from which raisins can be made, but as far as we can learn, do not give promise of becoming prominent as raisin grapes. In addition to these are the Chile Rose and Huasco, from both of which raisins are made in South America, but which have been but little cultivated here. Besides the Gordo Blanco, Uva Larga, Panse and Arignan, Mr. West has imported from Spain the Uva Salamana, Malvazai de Carragon, Muscate lo (small Muscat), Olivitta Bianca and others. These are being propagated and tested, but will not be sent out unless they prove to be desirable.

Shipments of Inferior Fruit.

It is a matter of regret that a large portion of the California raisins sent to the Eastern markets last year were of inferior quality, chiefly from being made of unsuitable grapes, thereby, it is feared, injuring the sale of future shipments. It is of the utmost importance that in the infancy of the industry none but the best should be sent out of the State, unless it is distinctly understood that the fruit in question is of the second quality, or cooking raisins, and is sold as such; and that the boxes should be plainly marked, so as to unerringly indicate the quality of the contents. There are doubtless many grapes growing in the State from which good raisins can be made, and it may be that some of the best Spanish varieties were brought here by Col. Haraszthy in 1861, and are now extensively cultivated under other names. Certain it is that some of our raisin producers, notably R. B. Blowers of Yolo, and G. G. Briggs, of Solano county, have superior varieties. Shipments of this year's crop, just received from these two producers, are of so excellent a quality as to leave little more to be desired. Those from Mr. Blowers, on account of the care and taste displayed in packing, have elicited general commendation, while many have expressed surprise that California is capable of producing such fruit.

Select List of Varieties.

A list including six varieties of the most desirable raisin grapes, and that has received the indorsement of competent authorities, includes the Muscatel Gordo Blanco and Uva Larga for the choicest table fruit, the Fiher Zagos for cooking raisins, and the White and Black Corinth for Zante currants. Cuttings of all these varieties, except the first two, are now obtainable in quantities, and the others are being rapidly propagated and will soon be sufficiently abundant to supply all requirements. Old vineyards of any variety can be quickly changed to these by grafting, and that, too, without a loss of more than one crop of fruit. To show how readily the change can be made, we may mention that Mr. West has grafts of the Gordo Blanco, which were inserted in May last, that are now bearing a number of bunches of fruit. Or, in other words, wood that grew in Spain last year is this year producing grapes in California.

An adhesive which, as far as color and durability is concerned, is affirmed to surpass that made from gum arabic, is made according to the following recipe, viz: Milk is curdled by the addition of acetic acid (vinegar) and the precipitated casein, after being thoroughly washed with fresh water, is dissolved in a cold, saturated solution of borax. The result is a clear solution of syrupy consistence, possessing, upon drying, a fine luster and highly adhesive qualities. This adhesive is recommended for a variety of uses.

A good coating for outside brickwork is made by mixing 20 parts clean river sand, one part quicklime and sufficient linseed oil to form a thin paste. This is also useful as a cement for broken stone, as when dry it becomes exceedingly hard.

Stock Breeders.

San Jose Fair—Judging Stock.

Editors Press:—On our visit to San Jose last week we had the pleasure of seeing a very fair show of cattle—chiefly Short Horns—exhibited, with a few exceptions only, in fair store condition, without being over-fed for the purpose, for we look upon this over-feeding as the great bane of cattle exhibitions.

In the management of the fair we give the managers credit for the formation of a ring,

A Square Ring, by the Way,

In which to bring the cattle class by class before the judges; also for providing ribbons to be tied on to the prize animals at the time of making the awards—both favors being obtained, we believe, through the persistent efforts of the exhibitors. Credit to whom credit is due! This, however, by whatever means brought about, we call a step in the right direction. Therefore, upon the principle that cattle placed on public exhibition are open to public criticism, we propose making a few general remarks on the

Quality of the Cattle Exhibited.

The worst feature of the Short Horn department was the medium quality of some of the bulls exhibited. We notice this particularly, because in the improvement of our herds it is by the superior excellence of the male animals continuously used that we reach the greatest degree of perfection in breeding.

The first class brought before the judges in which there was any competition was the three-year-bulls, and these only two in number, being C. Jones & Co.'s Mason Duke, and Page Bros.' Sonoma, either of which would be a good *first* in any show ring, and we think the judges fairly did their best when they placed the blue ribbon on Sonoma. Though this decision appeared to give dissatisfaction in certain quarters, yet we hardly think there was sufficient reason for removing the judges who made that award, and appointing a new committee—as was done, to the surprise of and the trial of the patience of those who had assembled to witness the performance of the judges.

Comparing the two above named bulls together we find that Mason Duke excels his competitor in some points where the other has his failings, and vice versa, and what bull has not his weak points? Whilst Sonoma is a trifle short in his hind quarters and does not flesh up so well on the rumps as his rival, yet we give him the credit of having a better depth of girth, or foreflank, and thickness through the heart, combined with greater prominence and depth of brisket. On the other hand, Mason Duke is somewhat better in the shoulder points and neck vein, and we think a little superior in his hair and handling. As we afterwards told Mr. Page, it would have required a little persuasion on somebody's part to have made us entirely agree with the decision of the judges, yet at the same time we give them all due credit for their opinion in the matter.

Mr. P.'s bull, having been lame for some time, certainly showed to some disadvantage, for which due allowance must be made, but at the same time we would advise his trainer, as well as some others, to let their bulls stand with their feet under them. To have the fore legs set forward at an angle of about 40 degrees, and the hind legs back in like manner, shows the brisket and flank to great disadvantage, and should the animal he at all inclined to leggiuess such a position gives a certain greyhoundish appearance not at all desirable in an improved Short Horn. In the

Two-Year Old Class

Of bulls we think the blue ribbon was rightly placed on Col. Younger's Red Thorndale, while Wm. Quinn fairly took the second with Duke of San Jose. In the

Yearling Class

Of bulls we think, decidedly, that the blue went wrong when placed upon J. D. Carr's Louan's Lord Oxford, when his Duke of Gabilan (unnoticed) so far excels him in quantity and quality of hair and flesh, better flank and ribs, a fuller twist and better thigh, with a wide, deep and full brisket, far excelling, in all these points, the prize bull, who is a nice, straight bull to look at, but we cannot reconcile ourselves to his hard handling and rather too flat ribs, lacking, as he does, that wealth of flesh and width of carcase so desirable in a well-bred Short Horn bull. In the

Bull Calf Class,

C. Jones & Co. take the first with a nice, straight, red calf, a trifle flat-ribbed and somewhat hard in his handling; the best calf in the class being, to our thinking, Geneva's Oxford roan by Sixth Lord of Oxford, dam Pet of Geneva. He is not, however, in show trim, being a little too big in the paunch, which pulls him down in the back a trifle, but his great wealth of flesh, massive thighs and loins—if massiveness can be attributed to a calf—with great depth of flank and good fore end, covered all over with a heavy coat of fine hair on a good quality of flesh, and plenty of it, makes it a pleasure to handle him. Though not

Continued on Page 274.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and Caltfornia Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of Catifornia is on Davis street, north-east corner of California.

Copies of the Constitution and By-Laws of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

P. of H.—Subscribers who pay fully one year ($4) in advance for the Pacific Rural Press can receive the California Patron *free*, or other premiums. See our preminm list in another column.

Report of Committee on Co-Operation.

Worthy Master and Members of the California State Grange: Your Committee on Co-operation beg leave to report that they have had under consideration the various matters referred to them by the State Grange; they have also considered the various propositions submitted by brothers who have given much thought to this important subject.

The subject of co-operation is of such vast importance to the welfare of the members of our Order that the details necessary to carry it into successfnl operation require more time and thought than your committee have been able to bestow upon it. The necessity for co-operation among the prodncing masses of our people, both agricultural and mechanical, is felt on every side, and this necessity is increased as the years roll aronnd. The power of the aggregation and centralization of capital requires a like massing of onr forces to resist its encroachments. And it is only by united, concerted and harmonious action that we can hope to cope with those who seek, in the futnre as in the past, to despoil us of the hard earned frnits of our toil. Your Committee regret that the limited time allowed for deliberation did not permit them to fully consider the Rochdale plan of co-operation, as prepared and recommended hy the Executive Committee of the National Grange. We call the earnest attention of the Patrons of California to this valt nable plan of co-operation, and in order that they may be provided with the plsns as prepared by the National Grange, we would recommend that the Secretary of the State Grange be authorized to procure a sufficient number of copies of that pamphlet to furnish five copies thereof to every Grange in good stsnding in onr jnrisdiction.

Your Committee also earnestly recommend to the Patrons of California, that where cironmstances are favorable, they organize co-operative sssociations, and incorporate nnder the lawa of the State, for the trausaction of such legitimate busiuesa as their necessities may require, and where such incorporations are not practicable, they recommend and nrge that the members of the Grangea in that particular locality aggregate their ordera for necessary supplies of all kinds, and forward the same to the Grangers' Business Association in San Francisco, to be filled at the lowest obtainable rates.

Realizing the great savings and benefits accruing from direct importation from mannfactnrers and large importers, they recommend that the Grangers' Business Association be made the channel, by aggregation of orders, through which these importationa are to be accomplished.

As to the resolntion in relation to aacks, your Committee recommend that it be amended so as to instruct the Secretary of the State Grange to put himself into communication with sack manufacturers in Great Britain and the United States, to ascertain the loweat price for which sacks can bo delivered in this city, and then inform the subordinate granges in California of snch prices, and notify them that if they wish to purchase sacka at that price to send their orders to the Grangers' Business Aasociation, accompanied by tho money or satisfactory securities to pay for such aacks. As to the reaolution relating to the importation of agricultural impiements, your Committee recommend its adoption.

All of which is respectfully submitted.

T. H. Merry, I. C. Steele, W. S. Manlove. B. Pilkington, H. A. Logan.

The W. M. at the National Grange.

On Tneaday of this week W. M., J. V. Webater, took his departure for the East. He will stop at the Patrona' encampmeut and do the Centennial till November 1at, and then attend the session of the National Grange at Chicago. We regret that Mra. Webster will be missed as a representative of California at the National Grange. Her abaence will be felt in the musical department especially.

Brother Webster has devoted his time and money unstintedly during the paat year in righting up and encouraging Grange work throughout his jurisdiction, and the enthusiastic manner in which the State Grange tendered him thanks shows that he holds a warm place in the hearts of the true and faithful. He is a aonnd man and deserves his well-earned honors.

Report of the Committee on Education.

Officers and Members of State Grange of California:—Your committee whose duty it has been to watch over the "educational interests" of our State for the past year, beg leave to submit the following:

The last Legislature amended the school law by changes as follows:

1. They made 3d grade certificates renewable; a possible good.

2. They debarred boards of examination from renewing 2d or 1st grade certificates, a most positive and unwsrrantable wrong.

3. They authorized the granting of duplicate certificates in other counties than those wherein the originals were obtained; thus John Smith, who holds a certificate which is about to expire in Fresno county, where he has taught, perhaps many years, is compelled to undergo the labor and expense of an exsmination, or migrate; so he goes to Tulare connty, where he may receive a certificate without an examination; this will expire after two years, if a 2d grade, when he must be examined or again migrate, so we see that onr "smended school law" is promotive of a constant change of teachers, one of the greatest evils in our system of public schools.

4. They compelled us to retain in use the McGuffey readers, in which our fathers learned to read. Has there been no improvement in school readers during the last half century? Besides, these old readers sre snited only to the old spelling-out or penknife method of instruction, while our Stste Board requires us to use the "object, or word method" of instruction.

5. They have fastened upon us for an indefinite length of time books never adopted in this State, but only *continued* in nse till better books could be supplied; thus there has just been published a Flora of Califoruia plants; our "amended school law" will not permit its use, bnt compels us, instead, to use the old Flora of the Eastern States, which contains only about three per cent. of California plants.

6. They have taken the matter of changing text hooks out of the hands of onr State Board of Education, largely composed of our ablest teachers, and put it into the hands of ths Legislature, whose incompetency to manage the matter is well illustrated by the acts of the last session.

7. In some schools during the past year the change was *begun* bnt not *completed*, from Payson's to Spencer's copy books; our amended school law compels this medley to be continued, till changed by legislative enactment, thus preventing, till that time, all possible order or method in teachiug penmanship in those scnools.

8. The books in use were adopted and prices established about seven years ago, when pricea of book material and book work were much higher than the are at the present time. The publishers of the McGuffey readers only have bound themselves to a reduced priced since. They have put themselvea under bonds to sell the readers, from 1at to 5th inclusive, at $1.72 greenbacks, about $1.55 gold, per set; *these retail* in our part of the country at $3 75 per set, being an advance to our middlemen of $2 20 on their outlay of $1 55. We deem these facts snfficient to jnstify our Order in demanding the restoration of former powers of the State Board of Education, or *some other method* of allowing *competition* in the price of books, without destroying our system of uniformity.

9. The readers and the grammars in use disagree widely with Webster, the standard authority of our language; we would recommend a judicious change, when the law will permit, to authors who agree with Webster, bnt we earnestly recommend that no change of books be made except where publishers of the books adopted will give the new books *in even exchange*, free of cost, to all pnblic school pupils throughout the State, book for book, for the old books superseded.

10. We heartily approve of the change from the old "examination cards" to the present method of a single set of questions to each Board of Examination, whereby the possibility of obtaining the questions beforehand is entirely prevented.

All of which ia respectfnlly aubmitted.

W. A. Saunders, For the Committee.

The Silver Wedding of Mr. and Mrs. A. W. Gove occurred lately at Lodi. Mrs. G. is Secretary of the Grange and we learn that a large number of Patrons were preaent on the happy occasion. We acknowledge receipt of four liberal samples of nice cake, all made by the bride after recipes in the Grangers' Book, edited by the ladies of Lodi Grange.

At the annual meeting of the Califoruia Faimers' Insnrance Association the following officers were re-elected: J. D. Blanchar, President; I. G. Gardner, Vice-President; G. P. Kellogg, Treasurer; Ferd. K. Rnle, Secretary; A. W. Thompson, Attorney. It was resolved to make the paid-up capital $200,000 by calling in the remaining 50 per cent. of their capital.

Cashier.—In our list of tho officers of the Graogers' bank last weok the name of the cashier, A. Montpellier, was accidentally omitted. He will be found in his place as heretofore.

From the Granges.

Sonoma County District Grange.

Editors Press:—I see in the Press of Oct. 7th a communication copied from the Sonoma *Democrat* in regard to the Sonoma Conuty District Grange, written by "C. M." His or her account is all correct as far as it goes, but we think it does not do the other officers and members exact justice, and as I promised to furnish the Press a full account of the meeting of the Grange at the time, I herewith submit a full report. My excuse for not doing so before is lack of spare time from my farm work. The following officers were elected for the ensuing year: B. B. Capell, of Healdsburg, M.; C. H. Cooley, O.; S. T. Colter, L.; J. Adams, S.; A. Lacque, A. S.; J. Gregson, C.; N. Carr, T.; G. N. Whitaker, Sec'y; S. Martin, G. K; Mrs. H. L. Carr, Ceres; Mrs. Goss, Pomona; Mrs. Mills, Flora; Mrs. Cooley, L. A. S. A general good feeling prevailed during the entire day. The fifth degree was conferred on a class of nine. At the close of the degreo the Grange partook of one of those bountiful harvest feasts for which the worthy sisters throughout the State are so noted, the table being supplied with fruits of all kinds that old Sonoma is famous for, besides eatables of all kinds. The next meeting will be held on the third Wednesday in December, when the officers elect will be installed and general business for the good of the Order transacted. It is to be hoped that no Grange in the county, or member of a Grange, will lag in this good work, as it certainly will be of lasting benefit, much more than a farmers' club or county council could ever be. The only fault we see in the Pomona Grange is, we never have time, after the usual preliminaries are gone through with, to work or exchange ideas on the different points of farming or stock raising. Some have far to come and then they must go home early, consequently there is not time for a general exchange of ideas and opinions. W.

Santa Rosa, Oct. 10th.

[We of course prefer to hear of all meetings through our own correspondents, and value their reports far higher thau anything we can copy from exchanges, but when these reports fail to reach us we are forced to print the best news which is available. We hope our correspondents will favor us promptly with reports of meetings, as they are looked for always in the first issue after the meetings have occurred.—Eds. Press]

Cloverdale Grange.

To show how a new awakening in the Grange movement is going on in all parts of California we will cite the interest manifested by the farmers in the valley of the Russian river, in Sonoma county. We are informed by Bro. C. H. Cooley, W. M. of Cloverdale Grange, that on Saturday, September 30th, that Grange conferred the fourth degree on a class of three applicants, had a harvest feast and a good time generally; but that of which we wish to make special notice is the fact that on that day that Grange received *thirteen* applications for membership by initiation. From all parts of the State we are in receipt of cheering news of a like character. Granges that have long been delinquent are paying up their dues and taking their positions in our ranks, confidence is restored and our ultimate success is assured.

T. H. M.

Oregon State Grange.

The meeting of the Oregon State Grange, held during the last week in September, was marked by harmony of action and sentiment, and an earnest spirit in the work. The work of the Order was progressed satisfactorily and a determination was evinced to go on with the business of co-operation. Tho following officers were elected for the enaning term of two years:

M., William Cyrus, Scio, Linn county; O., A R. Shipley, Oawego, Clackamas county; L., Sister E. N. Hunt, Sublimity, Marion county; S., W. B. Thomas, Walla Walla, W. T.; A. S., Geo. W. Riddle, Canyonville, Douglas county; C., W. H. Gray, Olney, Clatsop county; T., S. P. Lee, Portland; Sec'y, T. L. Davidson, Salem; G. K., J. Grayham, Mill Plain, Clark county, W. T.; Ceres, Sister B. A. Miller, Jacksonville; Pomona, Sister S. D. Durham, McMinnville, Yamhill county; Flora, Sister E. A. Kelly, East Portland; L. A. S., Sister George Smith, Hood River, Wasco county. Executive Committee (in addition to the Master, who is chairman), E. L. Smith, Hood River, and Robert Clow, Dalles.

Grangers' Business Association.—The attention of the stockholders in the Grangers' Business Association is called to a notice in another column, giving notice of the levy of the second assessment of $2.50 on each share of the capital stock and is due immediately, and becomes delinqnent January 1st, 1877.—Amos Adams, Sec'y Grsngers' Businesa Association.

The Holliater Grange has presented to J. D. Fowler, ita late secretary, a gold pen, accompanied with complimentary addressea.

Report of the Committee on Business Association.

To California State Grange:—Your committee appointed for the purpose of inquiring into the California Grangers' Business Association beg leave to report as follows: That they find it impossible with the limited time at their disposal to make anything like a detailed statement of its affairs, althongh every facility was offered for so doing by its manager.

In our judgment the best that could be done under the circumstances was to submit a series of questions to the acting manager, (Mr. Costigan,) which was done and appropriate answers were received, which are herewith submitted, marked exhibit "A." To verify the accuracy of the answers we examined the books and found them correct in every particular.

In order to answer the question as to speculation by the association we had recourse to the quarterly and two monthly reports, from which we are satisfied that only a strictly legitimate business is being done.

It appears to your committee that no other disposition is manifested on the part of the mansger and its chief employees than to treat Patrons with the utmost courtesy and discharge the duties imposed upon them with scrupulous fidelity to their utmost ability and with an especial eye to the building np, nltimate and triumphant success of our Order.

All of which is respectfully snbmitted.

R. S. Clay,
H. Y. Stanley,
F. A. Sprague. } Committee.

In Memoriam.

PILOT HILL GRANGE, No. 1, Grsonwood, El Dorado Co., Sept. 15th, 1876.

Whereas, It has pleased the Divino Master above to break the first link in the chain that hound us together as sisters and brothers of one great family by taking to himself our beloved sister, Mrs. Elnora H. Brown, wife of our worthy Master, P. D. Brown, loved by all for her many virtues and noble qualities, and who, while suffering from an incurable disease, and as long as her strength would permit, ever encouraged her sisters and brothers in our great work by her presence, therefore be it

Resolved, That, while we, the members of Pilot Hill Grange, No. 1, bow with humble submission to the will of our Heavenly Father who doeth all things well, we do not the less mourn for our dear sister, who was called from our midst on the 6th of September, 1876. And we do hereby tender our heartfelt sympathies to the afflicted relatives, especially to the beloved husband, our worthy Master, whose home is now desolate.

Resolved, That in the death of Sister Brown, her husband has lost a faithful and loving wife, her family an affectionate daughter, a cherished sister and devoted mother, and this Grange an honored and worthy member.

Resolved, That in respect to her memory the Charter of our Grange be draped in mourning, and that all the members wear the usual badge of mourning for 30 days. That these resolutions be spread upon the minutes of the Grange, a copy sent to the family of the deceased, one to the Placerville *Republican*, one to the Placer *Argus* and one to the Rural Press, for publication.—[Committee: Mrs. Adelia J. Terry, Alice E. Perkins, Mrs. M. P. Stoddard.

SAN BERNARDINO GRANGE, No. 61, San Bernardino, Sept. 23d, 1876.

Resolutions of respect to the memory of our beloved sister, Hester Blackburn, who passed to the higher life Sept. 17th, 1876, aged 76 years. She was among the first settlers of this valley in 1850, beloved and respected by all, she was ever instructive, genial and companionable, noted for her honesty and integrity, with a kind word for all. As nature gave her to us so to nature we return her as the ripe grain; she was ready for the harvest. Her mind was firm and clear to the last.

Resolved, That in her departure we lose a worthy member of the Grange, ever faithful to her pledge.

Resolved, That we cherish the memory of our departed sister and extend our heartfelt sympathy to the family and friends in their bereavement.

Resolved, That this resolution be spread upon the records of our Grange, and that a copy thereof be transmitted to the family of the deceased; also, to the San Bernardino *Weekly Times* and the Rural Press, with request to publish the same.—[Committee: Mrs. E. M. Wallace, Mrs. M. E. Wills, Mrs. E. S. Cameron.

SAN BERNARDINO GRANGE, No. 61.

Whereas, We have heard with deep pain and regret of the sudden and untimely death of our beloved brother, Joseph Sawyer, on Sept. 15th, 1876, therefore be it

Resolved, That in the death of Bro. Sawyer San Bernardino Grange has lost a worthy member, his wife a devoted husband, his children a loving and kind father and the community an energetic and kind hearted man.

Resolved, That the true and heartfelt sympathy of San Bernardino Grange is extended to our sorrowing sister, his bereaved wife, and to her now orphaned "little ones," and may an altwise providence temper the winds to the shorn lamb.

Resolved, That these resolutions be spread npon the records of our Grange, and that a copy thereof be transmitted to the family of the deceased; also, to the Rural Press and San Bernardino *Weekly Times*, with request to publish the same.—[Committee: J. D. Ostorhout, T. D. Henry, H. Suverkrup.

COLLEGEVILLE GRANGE, No. 184, San Joaquin county.

Whereas, After a lingering illness, accepting dissolution and the unknown beyond with an unshrinking resignation it is the lot of but few to know, Florentine M., the consort of M. W. Woodward, gently yielded up her spirit on September 17th at the home of her girlhood, near Collegeville. Deceased was aged 26, a communicant of the Baptist church and a sistor in the Collegeville Grange. An estimable circle of friends, a husband and little daughter are left to deplore her loss and treasure the memory of one whose life was pure and earnest, matured and yet so brief. By the Collegeville Grange

Resolved, We tender our sincere sympathy to husband and relatives in their bereavement.

Resolved, We regret the stroke that has stricken from our midst one so esteemed for her moral worth.—[L. R. Chalmers, Sec'y.

To Subordinate Granges.—In answer to enquiries sent to this office will say, that elections for officers in Snbordinate Grangea should be held at a regular meetiug in December, and the officers installed at a regnlar meeting in January. Secretaries are requested to notify this office, the namea of officers installed for the year 1877.—Amos Adams, Sec'y State Grange.

Agricultural Notes.

California.

BUTTE.

Down the River Road.—*Mercury*, Oct. 15: Things look lively down the east side of Feather river. Farmers are busy hanling hay, grain and wood to Oroville and Marysville. Crops were very good this year and it will take late in the fall to dispose of the surplus. Friesleben has three six horse teams hauling his own grain to town and yet has lots to come. The Hutchins Brothers are shipping large quantities of barley and hay into the loothills, and so it goes. The road is alive with teams. The corn crop was large along the river bottoms this season, and is rapidly coming into market. The leading farmers of this locality we understand are putting their grain through a grain cleaner, which adds materially to its value. This machine separates the black oats from wheat and leaves barley in fine condition for brewers. At Dr. Mattoon's and at the Central ranch we saw a large lot of broom corn baled for market. It brings from $75 to $100 a ton, and the value of the seed is considerable for feeding to hogs, chickens, and when mixed with corn, to horses and cows. The farmers are making improvements of considerable value. See has just finished a new barn, Weetwood is building a new dwelling house, Pollock will build one this fall, and the Hntchins Brothers are about to put up two large hay barns.

COLUSA.

Cotton Picking.—*Sun*, Oct. 14: Andrew Rntland informs us that cotton picking is progressing satisfactorily, and they have now about 75 Chinamen at work. They have been ginning the cotton as it was gathered, but of late there has been so much dew of mornings as to make the ginning bad, and they have concluded to abandon that plan, and will stop the gin for about a week. They have been having very good weather for the work, and as we feel a deep interest in this experiment, we hope the rains will keep off for a few weeks longer. A few thousand acres of cotton along the river would relieve our wheat land a great deal and bring a great deal of money into the county, and keep a great deal here that now goes off for grain sacks, etc.

CONTRA COSTA.

The Tule Lands in Contra Costa.—Dr. Strentzel in *Gazette:* In comparing the small area under cultivation with the total aggregate of land suitable for profitable culture, we are impressed with the opportunities offered of its immense increase; thus, in the least valnable portion classed as first grade, there are over 70,000 acres of tule delta around the mouth of the San Joaquin river and overflowed land along its banks, and this land when reclaimed will surpass in abundance and variety of products the famous delta of the Nile; why there is so little progress made in that line is because the work of reclaiming those tule lands is prosecuted rather as a job for fat contracts, and there is no well devised system of procedure. The county supervisors, acting nominally as swamp land commissioners, do not appear to have power or inclination for effectively controlling the managers of the different reclamation districts to compel the payment of assessments for work done on contracts; in consequence the work lags with the apparent intent to freeze out smaller holders and consolidate the princely domain into the hands of a few. From the experience so far gained in the reclamation work, it proves to be entirely feasible and facile of accomplishment; and the success already achieved in raising bounteous and luxuriant crops surpasses the most hopeful anticipations. The value is enhanced by this tule locality being exempt from miasmatic disease, and its resemblance to the great country bordering on the North sea. barring the roughness of that climate, make it appropriate to call onrs the future Holland of the Pacific—the most valuable portion for dairy purposes and for endless luxuriant crops of grain. Almost as well the delicate children of Pomona's realm take kindly to the situation; their feet daily laved by the ever recurring tides, find abundant foot, and the long seasons of solar action elaborate it into saccharine juice. Apples, pears, plums and berries grow to perfection, and any favoring knoll furnishes a home for a vine where grapes, large and juicy, if not so sugary as those grown on the upland, produce a most abnndant and excellent article for the table. The innnmerable sloughs and water courses, the natural roadways, are so many reservoirs for raising valuable kinds of fish, and will teem with animal food as soon as our legislators get awake to the importance of guarding and protecting public interests.

Squirrel Inspectors.—Antioch *Ledger*, Oct. 7: The following squirrel inspectors were appointed for this end of the county: L. G. Barkley, Eden Plains, Iron House and Lone Tree valley; M. H. Boothby, Antioch and Somersville; James Andrews, Excelsior district; P. Sappington, Liberty district. Work of poisoning will commence as soon as the inspectors qualify, and continue till November 20th, 1876.

EL DORADO.

Soap Root.—Oakland *News*, Oct. 14: An industry that has been developed by the Chinamen in this State and which has brought into El Dorado county a large sum of money will cause astonishment when published. It appears that from the town of Auburn there has been shipped over 600 tons of soap root, all gathered by Chinamen, each ton worth at Auburn about $60. The teamsters charge for hauling about $15. Quite a large sum of money has thus been put into circulation in El Dorado county by the potent Chinese, in performing labor that our civilized laborers would turn up their noses at.

KERN.

The Year's Prosperity.—*Courier Californian*, Oct. 12: The past season has been one of gennine prosperity. The crop of wheat, heretofore supposed to be a precarious crop, has been even better than that of barley; and the average, so far as can be obtained from actual measurement of several fields, will be nearly 40 buehels per acre. Barley has been about the same. Potatoes have been abundant, especially the sweet. Dr. Stockton informs us that he is more than ever convinced that no part of the State can compete with us in sweet potatoes. His crop is greater than ever, and he has been able to furnieh us with specimens weighing nine pounds. The market proves quite equal to expectation. Wheat is selling at home at $1.30 per 100 ponnds, freely, for cash, and barley at $1.25. Corn is not yet in market. The Kern River flour mill is buying all the wheat that is offered. The mining section is drawing on us for our whole surplus of barley. Sheep have been low in price, and the amount of money received for the spring clip of wool was the smallest for many years. But the fall wool, with the increasing demand and advance in prices, is making up in a great degree for the losses incnrred heretofore. Sheep are improving in price, with every prospect of soon reaching the old rates. Some of our most prominent farmers have been buying wethers to fatten on the farm, and they will tnrn out eome fat mutton in January and February, when good mutton is scarce and high. About 4,000 head of cattle have been pnrchased for the same purpose, many having been brought in from Nevada and Idaho.

LOS ANGELES.

Smothered in a Wine Vat.—*Herald*, Oct. 14: A startling rumor reached this city yesterday of a fatal accident which occurred on the premises of B. D. Wilson, near the San Gabriel Mission, during the day. The report was to the effect that two men, under the supervision of Mr. J. DeBarth Shorb, entered an old wine vat for the purpose of cleaning it. The tub had been closely covered since last year and had generated a quantity of carbonic acid gas, which prostrated the two men upon their entering it. In attempting their rescue Mr. Shorb was seriously and almost fatally affected. One of the men died from the effects of inhaling the gas and the other is in a precarious condition. The rumor failed to give the names of the two men, and a dispatch sent to the Mission in the afternoon failed to bring any further particulars of the unfortunate affair.

Plowing.—Plowing has commenced in earnest, and within 10 days 40 plows will be running in San Fernando valley. Quite a number of farmers have come from the Ventura conntry, and to-day four others were here looking for land to put in wheat.

MARIN.

Chicken Cholera.—*Journal*, Oct. 12: A disease of this kind has swept off nearly all the fowls along Tomales bay, and up as far as Bodega. R. H. Prince has only a dozen left out of 500, and nearly every ranch has lost in about the same ratio. Ducks are included in the mortality. The sickness is very short, being apparent only a few minutes before death.

NAPA.

Fruit Cars.—*Register*, Oct. 14: There are two fruit cars at the Napa depot, waiting to be loaded with grapes for the Eastern market. The gentlemen having these cars in charge are now among our grape growers, buying table grapes, for which they pay two cents a pound. These fruit cars are somewhat longer than the usual box car. Each one is provided with an ice chest, fan, ventilators and various sized chests, boxes and drawers for the preservation of fruit. They run through to Chicago without change, after being loaded, and carry some 10 or 12 tons of fruit.

Distillery.—Arrangements are being made by two experienced brandy distillers for erecting and operating a distillery in or near Napa. They have met with conciderable encouragement from grape growers, whose interests are of course promoted by any industry that creates a demand for grapes.

SACRAMENTO.

Alfalfa Seed.—*Record-Union*, Oct. 14: The seaeon has been a very unfavorable one for the production of alfalfa seed. The grass or clover has grown luxuriantly and produced a good supply of good hay, but when left, as is the custom, to form seed, the blossoms, though in great profusion, have blasted and produced no seed. This report has come from all qnarters—on high as well as on low lands. To seed well, alfalfa not only requires dry soil but a dry season. The prevailing dampness in the soil and atmosphere this season has been unfavorable, and the consequence will be a small crop of seed. This is unfortunate, for the reason that, at moderate prices, a greater area of land would be sown than ever before. Large meadows along the river bottoms were killed out the past spring by the long continued high water, and these are all to be reseeded. These large tracts of land in other portions of the State, particnlarly in the southern counties, were intended to be put into alfalfa this coming winter and spring, and a large crop of seed, had it been produced, would have been in demand. As it is, with a small crop the price of seed is advancing and will probably go very high, and many who intended to sow will be compelled to wait another year.

SAN JOAQUIN.

On the Tules.—Stockton *Independent*, Oct. 3: Throngh the courtesy of Mr. J. P. Whitney, who is effecting the reclamation of Roberts' island, we formed one of a congenial company who sailed up the San Joaquin on Saturday morning last by the cosy little steamer *Clara Crow*. The first landing made was at the head of Burns' cut-off, which divides Roberts' island from Rough and Ready. Mr. Whitney has here erected a comfortable farm house and commodious barn capable of storing 100 tons of hay and sheltering 32 horses or cattle, which is only one of many that he is erecting in different portions of the island. The levee here that was built last year is as solid and substantial as a street pavement. The high water mark of last spring, when the flood nearly reached the top of the wharves in Stockton, is plainly shown about four feet below the top of the levee. Steaming up the river 10 or 12 miles the levees built by Mr. Whitney showed the same uniform solidity, even in the most exposed portions. The object of Mr. Whitney's trip was to attend a meeting of the settlers in Swamp Land District No. 110, which embraces 3,200 acres lying along the main river on the upper end of the island. The steamer therefore stopped at the different ranches by the way, and having collected all the land owners, brought them to William Burnett's ranch, where the meeting was held. These settlers, some 20 in number, have lived contentedly for from 10 to 20 years on their narrow strips of land along the river, where the natural bank has been sufficiently high above ordinary floods to give them a tillable area of a few acres apiece, stretched out in a strip 200 to 500 feet wide. They have comfortable homes, are surrounded with luxurious orchards and vineyards, are in good circumstances, out of debt, and as a general thing have a pretty good bank account, all of which gives credence to the otherwise almost incredible reports of the productiveness of their soil, which we found, from conversation with them, to substantially agree. The crops raised by them heretofore have been mainly vegetables and fruit, onions and beans predominating. On first breaking up the soil they usually plant beans, as beane grow with little cultivation, and they are able to pick and sell $200 worth of string beans from an acre of ground and have a ton of dry beans left, worth $50 to $75. Onions grow in wonderful luxuriance, the yield averaging 250 sacks of 120 pounds each per acre, although as high as 450 sacks have been gathered from an acre of ground. At the present low price for onions, the net yield per acre is from $75 to $100. Blackberries, too, are a very profitable crop, from the fact that it is the earliest fruit in the market, the season for the San Joaquin berries being past before the San Jose blackberries are ripe. The growers therefore get the best prices. From a quarter of an acre of vines William Burnett sold last summer $127 worth of blackberries, contracting the whole of his snrplus crop at eight and a half cents per pound, although some of his neighbors realized from 10 to 25 cents for theirs. Mr. Burnett leased three acres of land this year to Chinese gardeners for half the crop, and his share realized $500. When the meeting was over, the settlers had come to a harmonious agreement to nnite in the construction of a levee. Three trustees were elected, viz: William Burnett, president; Fred Brownell, secretary and treasnrer; and Mr. Kidd. The trustees are empowered to enforce the construction of a levee of a uniform size, along the river, throughout the district, of such dimensions and in such position as they in their judgment may deem proper for the general good. All but one of the settlers signed the agreement to build their levees in a proper manner, the material in them being measured and all settlers paying their pro-rata of the cost according to the acreage owned by them. In this manner those living back of the river with little or no frontage will pay for their protection equally with the others. In case any man refuses to build his levee as the trustees direct, they are empowered to go on his land, build the levee to their liking and assess his property for the cost, which he must pay or have his land sold within 60 days to meet such cost.

SANTA BARBARA.

Crops.—Editors Prese:—Crops here on the mesa have done well this year; the flax crop was excellent, but there was but little put in.—A. J., Santa Barbara.

STANISLAUS.

Hickory Nuts.—*News*, Oct. 13: We were presented the other day, by Mr. Wm. Steuart, with a cluster of old-fashioned Western shell-bark hickory nuts, grown in Mr. Isaac Daiken's garden, at Knight's Ferry, in this county. Some twenty years ago the seed from which these nuts were produced was planted. The tree at present is thrifty and about 25 feet in hight. It is the first year that it has borne fruit. The cluster presented us was well formed, containing four nuts of average size, with a hull half opened. The sight of these nuts involuntarily carried us back in memory to other days.

SUTTER.

Rain.—*Banner*, Oct. 14: We had a refresher in the way of a smart shower with thunder and lightning on Tuesday evening, refreshing the vegetable gardens, laying the dust and cooling the heated atmosphere.

Woodward's Gardens embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

Sonoma and Marin Fair Premium List.

Thoroughbred Horses.—Stallion, 4 yrs old, Bayswater, J. A. Merrick, Petaluma, dlp and $25. Stallion, 3 yrs old, J. B. Chase, California, $20. Stallion, 2 yrs old, James Watson, Ironwood. Stallion, 1 yr old, G. Lacey, Captain McKenzie, $10. Mare, 4 yrs old, Mrs. St. John, Demorest, $20. Mare, 3 yrs old, N Coombs, Jr., $15. Mare, 2 yrs old, J. B. Chase, Wild Rose, $10. Mare, 1 yr old, G. Lacey, Norah, $7. Suckling mare colt, Mrs. St. John, Aura, $5.

Graded Horses.—Stallion, 4 yrs old, J. B. Hinckle, Geo. C. Gorham, $15. Stallion, 3 yrs old, J. B. Chase, Napoleon, $12. Stallion, 2 yrs old, James Field, Gen. Sarsfield, $8. Mare, 4 yrs old, Dan Brown, Annie Adams, $12. Mare, 3 yrs old. J. B. Chase, Black Bess, $9. Mare, 2 yrs old, A. P. Whitney, Flower Girl, $7. Suckling horse colt, Richard Crane, Silas Booth, $5. Suckling mare colt, Dan Brown, no name, $5. Stallion and six colts, J. B. Hinckle, Geo. C. Gorham, $20.

Horses of all Work.—Stallion, 4 yrs old, W. Bibler, H. H. Haight, $12. Stallion 2 yrs old, Joel Merchant, Count Defiance, $8. Stallion, 1 yr old, J. W. Ofit, General, $5. Mare, 4 yrs old, A. J. Peterson, Dinah, $10. Mare, 2 yrs old, H. L. Upton, Jessie D., $8. Mare, 1 yr old, Page Bros., Queen, $5. Suckling horse colt, T. M. Chapman, Young Shasta, $5. Suckling mare colt, J. Long, Flora, $5. Stallion and six colts, J. Merchant, Young George M. Patchen, $20.

Draft Horses.—Stallion, 4 yrs old, Skillman & Wooden, Superior, $15; stallion, 3 yrs old, Page Brothers, Cotate, $12; stallion, 2 yrs old, William Bibler, King George, $8; stallion, 1 yr old, A. J. Peterson, Royal Tom, $6; mare, 4 yrs old, Skillman & Wooden, Rose Emma, $12; mare, 3 yrs old, Page Brothers, Dolly Brittan, $9; mare, 2 yrs old, G. D. Green, no name, $7; mare, 1 yr old, G. D. Green, Kate, $6; suckling horse colt, Skillman & Wooden, Duke II, $5; suckling mare colt, J. Wooden, Julia, $5.

Roadsters.—Stallion, 4 yrs old, Mrs. S. E. Daniels, McClellan, dip and $15; stallion, 3 yrs old, D. Brown, Alexander, $12; stallion, 2 yrs old, J. S. Van Doren, Pickwick, $8; mare, 4 yrs old, L. W. Walker, Queen Victoria, $12; mare, 3 yrs old, F. H. Cheeseman, Mary, $9; mare, 2 yrs old, A. P. Whitney, Gazelle, $7; colt, 1 yr old, sired by a roadster stallion, Wm. H. Van Doren, Niagara Patchen, $6; suckling colt, sired by a roadster stallion, Richard Crane, Richard Booth, $5; stallion and six colts, Mrs. S. E. Daniels, Gen. McClellan, $20.

Thoroughbred Cattle.—Durham bull, 4 yrs old, J. McM. Shafter, Muscovite, $20; Durham bull, 3 yrs old, Page Brothers, Sonoma, $15; Durham bull, 1 yr old, Sylvester Scott, Duke of Monterey, $8; Durham bull calf, A. G. Scoggins, Duke of Essex, $5; Durham cow, 4 yrs old, Page Brothers, Caroline Airdrie, $15; Durham heifer, 2 yrs old, A. J. Scoggins, Essa, $8; Durham heifer, 1 yr old, A. J. Scoggins, Fannie Fern, $5; Durham heifer calf, Page Brothers, Caroline Sutherland, $4. Devon bull, 4 yrs old, Mrs. S. E. Daniels, Earl of Leicester, $20. Devon bull, 3 yrs old, Mrs. S. E. Daniels, Beecher, $15. Devon bull, 1 yr old, Mrs. S. E. Daniels, Rover, $8. Devon bull calf, Mrs. S. E. Daniels, Tilton, $5. Devon cow, 4 yrs old, Mrs. S. E. Daniels, Victoria, $15. Devon cow, 3 yrs old, Mrs. S. E. Daniels, Nancy, $10. 1 yr old, Mrs. S. E. Daniels, Nellie, $5. Heifer calf, Mrs. S. E. Daniels, Daisy, $4. Alderney bull, 4 yrs old, J. McM. Shafter, Surprise, $20. Alderney bull, 2 yrs old, J. A. Wiswell, Prince, $10. Alderney bull, 1 yr old, Dr. Maxwell, Napa, $8. Alderney cow, 4 yrs old, J. McM. Shafter, May Flower, $15. Ayrshire bull, 3 yrs old, A. Higgins, Major Wentworth, $15. Ayrsbire bull, 1 yr old, A. Higgins, Gen. Vallejo, $8. Ayrshire bull calf, A. Higgins, Duke, $4. Ayrsbire cow, 4 yrs old, A. Higgins, Kittie Clyde, $15.

Graded Stock.—Bull, 4 yrs old, E. R. Charles, Joe Smith, $15. Bull, 3 yrs old, Robert Crane, Prince, $10. Bull, 1 yr old, C. S. Miller, Billy, $4; Bull calf, C. S. Miller, Two Rock, $3. Cow, 4 yrs old, Richard Crane, $10. Cow, 3 yrs old, Patrick Mullaly, Erin's Pride, $8. Heifer, 2 yrs old, Page Bros., Lizzie, $6. Heifer, 1 yr old, Page Bros., Mamie, $4.

Sheep and Goats.—Page Bros. were awarded a pr of $10 for best French Merino ram. H. Meacham received prs for best Spanish Merino ram, $10; best five ewes, $10; best American Merino ram, 10; best five American Merino ewes, $10; best Cotswold ram, $10; best five ewe lambs, $5; best graded ram, $8; best graded ram lambs, $4. Richard Crane, best Southdown ram, $10; best five ewes, $10. Frank Judson, best five Cotswold ewes, $10. D. S. Dickinson, best graded ewe lambs, $4. E. G. Randall took all the prs on goats, $25.

Swine.—Best Berkshire boar, $8, D. Stewart; best five sows, $8, D. S. Dickinson; best Essex Boar, $8, Robert Crane; best Essex sow, $5, G. Lacy; best Chester sow, $5, G. Lacy; best China Poland sow, $5, R. Crane; best five pigs, $5, R. Crane; best graded sow, $5, R. Crane.

Pure Bred Poultry.—Best exhibit not less than five varieties, Schwartz & Son, $10; best lot of White Brahmas, Schwartz & Son, $2; dark Brahmas, Morris Bros., $2; white Cochins, Richard Crane, $2; partridge Cochins, Schwartz & Son, $2; silver-spangled Hamburgs, Morris Bros., $2; gold-spangled Hamburgs, Morris Bros., $2; white Spanish, A. Doty, $2: brown Leghorns, Schwartz & Son, $2; gold-spangled Polish, Mrs. Thomas Gilbert, $2; best lot white-crested black Polish, Schwartz & Son, $2; game, Geo. Carey, $2; Japanese Bantams, Charles Kelly, $2; Dominiques, C. S. Gibson, $2; Sultans, Morris Bros., $2; bronze turkeys, Schwartz & Son, $3; golden pheasants, Mrs. J. Purrington, $2; geese, Robert Crane, $3; Cayuga ducks, Robert Crane, $2; Rouen ducks, Robert Crane, $2. White Legborns, Schwartz & Son, $2.

Agricultural Products.—Best exhibit grain, four varieties, J. C. Purvine, $10; Australian wheat, W. D. Freeman, $5; Smith wheat, J. C. Purvine, $5; wheat, any other variety, S. S. Nowlin, $5; barley, Robert Crane, $5; rye, John Kendall, $5; oats, J. C. Purvine, $5; wheat flour, G. P. McNear, $5; cornmeal, G. P. McNear, $3; shelled corn, Fred Starkie, $5; slugle variety potatoes, George Campbell, $2; collection potatoes, five varieties, J. B. Gossage, $5; onions, John Kendall, $2; squashes, John Hermer, $2; mangel wurtzels, J. L. Mock, $2; blood beets, John Kendall, $2; rutabagas, Fred Starkie, $2; corn on stalk, Fred Starkie, $2.50; cabbage, John Keudall, $2; watermelons, Morris Bros., $1.50; cantaloupes, Morris Bros., $1.50; egg plant, Morris Bros., $1 50; carrots, J. L. Mock, $1; pie plant, W. H. Pepper, $1; garden vegetables, John Kendall, $5.

Fruit, Grapes, Nuts, Etc.—Largest and best collection of fruit, H. Lapum, $20; secoud best collection of fruit, M. Gilliam, $10; best exhibit of apples, Mrs. J. Purrington, $5; single variety, six apples, Mrs. J. Purrington, $2.50; six varieties of apples, Richard Crane, $3; best collection of pears, Mrs. J. Purrington, $5; slugle variety, Mrs. J. Purrington, $2.50; six varieties of pears, Mrs. Purrington, $3; best quinces, Mrs. S. Green, $2.50; best collection of oranges, Morris Brothers, $3; lemons, Morris Brothers, $3; grapes (42 varieties) raised by one person, Morris Brotbers, $20; best foreign grapes, Morris Brothers, $5; California grapes, Morris Brothers, $3; largest bunch grapes, of any variety, Morris Brothers, $2; best collection of figs, Mrs. J. Purrington, $2; almonds, Mrs. J. Purrington, $2; English walnuts, Morris Brothers, $2.

Preserved Fruits, Etc.—Best exhibit dried fruits, Mrs. Rowland, $15; dried apples, Mrs. Rowland, $3; dried peaches, George Harris, $3; dried plums, J. L. Mock, $3; dried plums, seeded, Mrs. J. Purrington, $3; dried figs, Morris Brothers, $3; raisins, Morris Brothers, $5; canned fruits, Mrs. G. W. Case, $5; jellies, Mrs. G. W. Case, $5; preserves, Mrs. Houx, $5; pickles, Mrs. G. W. Case, $2.50; catsup, Miss Ella Green, $2.50.

Butter, Cheese and Bacon.—Box best fresh butter, A. J. Pierce, $10; packed butter, packed three months, David Stewart, $10; cheese, W. H. White, $7.50; best hams, Robert Crane, $5; side bacon, Robert Crane, $3.

Wine, Cider, Ale, Etc.—Best exhibit ale, B. F. Con-

Continued on Page 276.



A Forsaken Garden.

[A New Poem by A. S. SWINBURNE.]

In a colgn of the cliff hetwcen lowland and highland,
At the sea-down's edge hetween windward and lee,
Wailed ronnd with rocks as an inland Island,
The ghost of a garden fronts the sea.
A girdle of hrushwood and thorn encloses
The steep square slope of the blossomless hed
Where the weeds that grow green from the gravcs of its roses
Now lie dead.

The fields fall southward, ahrupt and broken,
To the low last edge of the long lone land.
If a step should sound or a word he spoken,
Would a ghost not rise at the strange guest's hand?
So long have the gray hare walks lain guestless,
Through branches and briers if a man make way,
He shall find no life hnt the sea-wind's, restless
Night and day.

The dense hard passage is hlind and stifled
That crawls hy a track none turn to climh
To the stralt waste place that the years have rifled
Of all hnt the thorns that are touched not of time.
The thorns he spares when the rose is taken;
The rocks are left when he wastes the plain.
The wind that wanders, the weeds wind-shaken,
These remain.

Not a flower to he prest of the foot that falls not;
As the heart of a dead man tne seed-plots are dry;
From the thicket of thorns whence the nightingale calls not,
Could she call, there were never a rose to reply.
Over the meadows that hlossom and wither,
Rings but the note of a sea-hird's song;
Only the snn and the rain come hither
All year long.

The sun hurns sere and the rain dishevels
One gannt, hleak hlossom of scentless hreath.
Only the wind here hovers and revels
In a round where life seems barren as death.
Here there was laughing of old, there was weeping,
Haply, of lovers none ever will know,
Whose eyes went seaward a hundred sleeping
Years ago.

Heart handfast in heart as they stood, "Look thither,"
Did he whisper? "Look forth from the flowers to the sea;
For the foam flowers endure when the rose-blossoms wither,
And men that love lightly may die—but we?"
And the same wind sang and the same waves whitened,
And forever the garden's last petals were shed.
In the lips that had whispered, the eyes that had lightened,
Love was dead.

Or they loved their life through, and then went whither?
And were one to the end—hut what end who knows?
Love deep as the sea as a rose must wither,
As the rose-red seaweed that mocks the rose.
Shall the dead take thought for the dead to love them?
What love was ever as deep as a grave?
They are loveless now as the grass above them
Or the wave.

All are as one now, roses and lovers,
Not known of the cliffs and the fields and the sea.
Not a hreath of the time that has been hovers
In the air now soft with a summer to be.
Not a hreath shall there sweeten the seasons hereafter,
Of the flowers or the lovers that laugh now or weep,
When, as they that are free now of weeping and laughter,
We shall sleep.

Here death may deal not again forever;
Here change may come not till all change end.
From the graves they have made they shall rise up never,
Who have left nought living to ravage and rend.
Earth, stones, and thorns of the wild ground growing,
While the sun and the rain live, these shall he;
Till a last wind's hreath upon all these blowing
Roll the sea.

Till the slow sea rise and the sheer cliff crumhle,
Till terrace and meadow the deep gulfs drink,
Till the strength of the waves of the high tides humhle
The fields that lessen, the rocks that shrink,
Here now in his triumph, where all things falter,
Stretched out on the spoils that his own hand spread,
As a God self-slain on his own strange altar,
Death lies dead.

"IT IS NOT MINE."—It often happens that the very people most particular respecting their own things, are most wanton in their disregard of the property of others. Habits of neatness and economy are assuredly commendable, but they become mean when applied to one's individual use, and when the reflection "it is not mine" is looked upon as a release from care. This thought, on the contrary, should render the merest trifle important in our eyes. A truly benevolent heart and thinking mind dictate a desire to protect the right, reputation and property even of a stranger. We like the man who goes back in the night to fling aside a stone against which he has hurt his foot, s that the next passer-by, whoever he may be, may be spared the same evil. It is a trifle, but springs from a good principle, and carried out into the great ramifications of society, may produce happiness incalculable.

A WORD FOR MARY MOUNTAIN.—EDITORS PRESS: We shall be sorry when Mary Mountain gives up her Centennial chats, and hope she will find something else to chat about. She always finds something good and tells it so pleasantly.—A. J., Santa Barbara.

Two things, well considered, would prevent many quarrels; first, to have it well ascertained whether we are not disputing about terms rather than things; and secondly, to examine whether that on which we differ is worth contending about.

Centennial Chat—No. 10.

[Written for the PRESS by MARY MOUNTAIN.]

From Philadelphia to New York there was little to remark, except that the country was even then suffering from the drouth that has since been severe all through the Eastern States. New York was no whit cooler than Philadelphia, and to think of the one day spent within its borders is about as pleasant as having a blister dressed. We took a ride on the elevated railway to Central park and looked down upon the ragged edges of the great city, down into the homes of its poor people, and their markets, where they buy such pale and wilted vegetables as a San Francisco dealer would dump into the dock.

Such old, old houses, swaying sideways and tilting forward to let out swarms of barefooted women and children; yet the railway shows us by no means the worst parts of the city—those awful worst places where it is dangerous for a clean person to walk through the reeking filth and heat that furnish slow poison for the multitude. I wonder if those poor wretches ever find their way to Central park, where the generous breadth, purity and beauty are like a poem that all may read, a sermon that all may heed.

Coming up the Hudson next day the steamer was crowded with people fleeing to the mountains, many sickly women and children; and more than 500 little children had died in New York the past week.

It would be far better to go up the Hudson before visiting Yosemite or crossing the Sierra Nevada, for to one coming from those depths and hights the Palisades seem hardly bold and high enough. Yet here is the serene beauty of nature and art combined; and after the distractions of Centennial sight-seeing serenity was just what we needed. Many of the passengers were on the alert to discover the homes of famous men, and especially the home of Washington Irving, whose pen has thrown such a delightful glamor over all these scenes.

But most of the country seats were much hidden by trees, and modest Sunnyside showed us only the tips of its brown gables and the shy path darting down from the woods to the river—the beautiful woods and river that have inspired souls of poets and painters to some of their noblest work. Just before leaving home we had been reading

The Romance of the Hudson,

And were prepared to look with double interest upon every spot that holds an old tradition or links its name with pages of historic fact; so with help of the guide books we saw the very bridge over which Ichabod Crane was chased by the headless horseman, and gazed into the lazy depths of Sleepy hollow, where Rip Van Winkle had such a good snooze before gongs and fog-whistles were invented. Also, we saw pretty nearly where poor Andre was captured and where the baffled Arnold came dashing down to hail the British ships and escape the vengeance his treason deserved.

It was pleasant to spend a night in Albany and meet the familiar faces of old California friends—pleasant to go steaming up Lake Champlain the next day, past Crown Point and

The Ruins of Fort Ticonderoga,

That were, not long ago, all alive with a patriotic crowd who came to celebrate the Centennial anniversary of its surrender to the brave Green Mountain boys under Col. Ethan Allen. In the interval of music and feasting, Young America listened to the thrilling old story how Col. Allen made his way to the commander's apartment and ordered him to surrender. "By what authority?" demanded the astonished officer. Raising his sword as if to strike, Allen replied, "In the name of the great Jehovah and the Continental Congress!" Resistance was vain and the British commander was obliged to surrender the post, together with 48 men, 122 cannon, several vessels, abundant stores and a large supply of powder, which was much needed in the camp at Boston. Two days afterwards Crown Point was taken without resistance. These victories without the loss of a single man greatly encouraged the colonists.

On Lake Champlain we realized for the first time what a fair, large sheet it is, covering an area of 600 square miles, with an extreme length of 140 miles. Its shores and islands give beautiful views only second to those of the Hudson; the Vermont side showing thrifty farms and villages, with the Green mountain range for a background, while the New York side is more abrupt, giving wilder landscapes and hills pushing close to the shore.

The fair city of Burlington, Vt., sits queen of the lake by right of nature and acquired beauty and the prosperity that comes from knowing how to use good gifts. From Burlington to Montpelier we pass through a fine farming country, and this whole northern Vermont, clad in summer splendor, has very nearly shaken our allegiance to California.

Our only salvation was to remember the early and late fierceness of winter, beginning in November, sometimes even in October, and lasting this present year far into May, so that farm work was hardly under way till the first of June.

What would spoiled California say to that? Cattle to be fed seven months in the year, stables to be cleaned and bedded, ice to be cut from the watering places and no end of tough work to be done with numb fingers and frozen mittens? Some of the dairymen told us of the hard labor and expense that goes to the wintering of their herds, and I just thought that the average Californian would start for the nearest tree and hang himself sooner than consent to such a servitude.

But the winter story is only half of it. They were all working as hard as they could jump to store up food so that man and beast may come out alive next spring; and farmers seem constantly bearing up against a heavy pressure of work that admits of no delay.

What immense piles of wood they burn in the course of a year! And they don't dribble it out by the armful and keep one poor little stick at the door, with axe alongside, so that in case of emergency the wife can take her hands out of the dough and chop a little for exercise. Nearly every farm I visited has its wide, long shed full of excellent wood, all cut and piled ready for winter, and other piles outside to be worked up in odd hours, just as the wife catches up her knitting-work when she wants to rest. And what is the outcome of all this industry and struggle with hard conditions?

The farmers, as a class, are prosperous; are rich or "fore-handed;" they take slow but sure steps forward; they build grand, big barns and comfortable, often handsome houses; drive good horses and stylish buggies, and as a general rule the sons and daughters dress right up to date and go to the academy for more or less of an education.

But the sons and daughters are altogether too scattering; not so thick as in our young days, when we trooped to school by the dozen, and a peck basket would hardly hold lunch enough to go round, for we were a sturdy lot of urchins, hearty and hungry as young bears.

But the old school-houses are smitten with solitude; many, we find, have stood empty these years for lack of scholars, and those that still make a show of life are snubbed and neglected.

Academies and sectarian schools ride on a higher tide and "catch the favoring gale," whatever there is of it; but it is painful to note the entire lack of interest in all that pertains to the common school. Scores of people have asked, "Do you have any school privileges in California?" How I have wished I could show them the living reality of "privilege" there in contrast with the dead indifference here. My fellow pilgrim wandered over his old home district in Lyman, N. H., and gathered a few mournful statistics, that show less than a dozen children now against 100 that swarmed there 40 years ago.

Alas for the ancient homesteads, whose sons "go West" and whose daughters are gobbled up by the prowling Californian. Right here where I now write I find a farmer owning the land that formerly made three farms and supported three large families. The big houses stand empty, going to decay, and instead of the three families, numbering 9, 12 and 14, I find one pale little girl, who is just beginning her education at the academy in the next town; and this case would not be worth mentioning if it were not a fair sample of the state of things we find in many other rural districts.

In northern Vermont dairying is much in favor, and although the season is so short, their economical methods lead to very fair results, so that the most complacent Californian can hardly quarrel with their method or their margin even, while he insists that his own ways are the best.

The large pans, each large enough for a milking, are very generally introduced and give great satisfaction, saving at least half the labor and yielding as much if not more butter. The labor-saving is an important item, for here the women have to do the greatest share of the dairy work.

The butter is marketed in two ways: either packed solid in tubs holding about 35 pounds, or prepared for the table in small pats of irregular size and weight, generally stamped in a mold, and then must be handled very gingerly or their beauty is spoiled.

In this matter they might perhaps take a lesson from us and find the advantage of packing or putting up fresh butter in rolls of uniform weight.

As a rule the cows are no better than ours; herd-book, grade, and mixed in about same proportion and not far different in price, except that herd-book stock is cheaper. The quantity of butter per cow is about our own average, say from 125 to 150 pounds per annum. So far as we have observed, the churns, butter workers and other dairy tools are hardly up to the California standard; and if the conditions for making first-class butter are better understood they are certainly no better practiced than with us.

The milk-room is sometimes used as a storeroom for food; the cows run in with dogs, and milked with much noise and "discipline;" the milking is done at irregular hours and by irregular hands; and some other faults in dairying have been observed with that keen relish we always have for familiar things found far away from home.

As for food, they have here about the best in the world; the sweetest grass in summer, pieced out with a little hay at night, and cow-corn in the fall, then plenty of good hay for winter, with roots and grain toward spring. The practice of stabling the cows at milking time is becoming quite general, turning them out again to pasture over night.

The Dairy Faults

Noticed above were not found in any special locality but picked up "one at a time" over a great extent of country. Any Eastern farmer visiting California will not have to travel half as far to find twice as many; and he will not be apt to find many farmers there who can turn off between three to four hundred dollars' worth of butter from a farm of 60 acres, in a year when butter is worth only 25 cents per pound.

Raising and Training Stock, Human and Otherwise.

[Written for the PRESS by E. BERWICK—Continued.]

As I stated in my last letter, every agriculturist or stock breeder enters on his business with a definite purpose. He has considered the "hows" and "whys" of his occupation, and knows the kind of stock he wants and the use to which he intends devoting his produce.

Have we any similiarly clear views as to the training and ultimate position of

Our Own Children?

I profess to have had no large experience in, or facilities for observing, the characters of the rising generation of young Californians, but the little I have seen convinces me that the majority grow up undisciplined, uninstructed and with small idea of the value of time, of knowledge, or of self-control. Parents seem entirely satisfied if their offspring possess the one almighty, never-to-be-sufficiently-extolled virtue of

"Smartness."

Which virtue, as exhibited in the human family at large, consists in out-lying the biggest liar and out-cheating the most fraudulent knaves. That my definition is correct, the recent exposures at Washington of some of our "smartest" politicians will amply testify.

Now, Messrs. Editors, the spirit inspiring your extract from the New York *Tribune* gave "obedience" as the primary virtue necessary to the well being of a child. Moreover, I take it that, in spite of our past shortcomings, we are all really agreed in wishing to see our offspring

Dutiful Children and Good Citizens.

The spirit inspires me, then, to add my testimony to that of the New York *Tribune* and to place obedience as the *sine qua non*, even of life.

Every act of disobedience to God's laws, be it from ignorance, idleness or wilfulness, meets with its condign punishment, while obedience is as certainly rewarded.

A farmer's success is assured just so much as he studies those laws and directs his operations in accordance with them. If he object to recognize them as God's laws, he can call them regulations of nature, or fortuities of chance, or what not. I don't myself believe in fortuitous concourses of atoms, though I am perfectly willing to follow Prof. Tyndall and claim "nebulous haze" as a possible projenitor, though not quite the head of the family tree. I go one step further back and claim my paternity in the Omniscient Omnipotence who controls the evolution of so misty and chilly a substance as "nebulous haze," and "conserved energy" added thereto.

We should think that navigator a fool who refused to govern his ship's course in obedience to the mariner's compass; or that engineer an idiot who expected to raise steam without the application of heat; or that orchardist a lunatic who should sow thistles expecting to raise figs. In every vocation of life it is only by obedience that success is possible.

Obedience to natural laws insures health, obedience to the laws of the country makes the good citizen, obedience to the moral law and to the truth makes the reliable friend and good Christian.

Then, mothers, don't say, "Oh, poor little thing, he is

Too Young to be Made to Obey."

I know what dear little creatures those babies of yours are (have a stock on hand myself, speaking as twain, *not Mark Twain*), and I know that that talk of too young is all "played out." Any child that is old enough to get into an ugly temper, and squall and squirm and "raise Cain" generally, is old enough to be spanked, and convinced *at once* that "raising Cain" is by no means a profitable pursuit. Mind, I don't believe in the parents "raising Cain" for themselves, and allaying Cain by spanking the babies. That's too mean altogether; but I know it's often done. And I don't believe in parents disobeying natural laws and having their children sick and peevish in consequence, and then supposing that "spanks" will cure "spasms" or other similar resulting ills.

All we dairymen know that the younger the calf is the more readily it learns to drink milk from a pail; so with a child, the earlier it learns its lesson of obedience the easier for all parties; the quality becomes a habit, and habit is second nature. How vast the saving in the matter of lachrymal fluid and ear-offending noise, only those will credit who have witnessed the household where obedience is the rule, and

that where continual threats are as continually disobeyed.

The secret of making children obedient is never to threaten without carrying your threat into accomplishment.

Be as Good as Your Word.

This would naturally bring me to the New York *Tribune* writer's second point: "Teach your children to be truthful." In my view truthfulness is included in the one grand lesson of obedience; obedience not merely to father and mother for fear of impending stick—that fear and that obedience must in the course of nature soon pass—but obedience to the whole law of God from a positive knowledge that

Disobedience Recoils on the Transgressor.

According to God's law, if living human flesh comes in contact with substances undergoing rapid combustion, it suffers painful injury. This law soon becomes evident to the dullest capacity and a ready obedience results. But if one says "be truthful or your better nature will suffer painful injury," the fact, being less easily demonstrable, receives far less ready credence; although there is really no more doubt that a want of truthfulness debases a man, than there is that contact with fire burns him. And although "smartness" has become so exalted a virtue, there is yet a strong belief that lying is utterly debasing and brutalizing. Calling a man a "liar" is supposed to be the unpardonable insult. Lying destroys the foundation of social life. How can there be aught but a superficial gloss of politeness in society, when, at heart, every man harbors suspicion against his fellows. However many paltry "twenties" a man may pouch by being tricky, he knows himself that much less a man; and as the pile of "twenties" hightens, his manly nobility grows less; the consciousness of his meanness increases as his suspicions of his fellows increase; his nearest relatives become dreaded as would-be assassins. Any reader of Dickens will call to mind how enviable a life was led by old Chuzzlewit, and how dutiful a son young Jonas proved. Love, self-denial and all the Christian virtues are included in obedience; but all are incompatible with deceit. Deceit makes very Arabs of the human family, and raises every man's hand against his fellow's. Farmers! do all you can to hasten Holmes' millenium.

"When berries, whortle-, rasp- and straw-,
Grow bigger downwards through the box."

An Earnest Life.—Earnestness does not always move with a clatter. There are other things in this world which are quite as pleasant and edifying as the rub-a-dub-dub of a snare drum. In fact, this kind of melody is not generally the highest kind of music. Have you never known a man bustling and officious, clamorous and loud, but who did not weigh heavy after all?—a thing very well understood by every one except just the man who might have profited by that piece of information. And have you never known a man quiet and unostentatious and faithful, and who was a perpetual blessing—a golden man, deep souled and true, whose memory lingered long after he was gone, like light upon the hills after a gorgeous sunset? The shallow stream rattles along its course; but when it is met and drowned by the majestic tides rolling in from the sea, there is silence on the hills. In the great tide there is the power of more than a hundred rivulets, yet its coming is almost as quiet as the celestial forces that bring it. The tide flows down and shallow grows the stream, and again the empty chattering goes on. And this is what we wish to say, that things most potent, although demonstrative, as indeed they must be from their effects, are not necessarily noisy. A strong, earnest life need not make what some people are in the habit of calling "a fuss." It is better known by the lead that strikes than by the gun which sends it.—*Golden Rule.*

Defence of the Goose—It is a great libel to accuse a goose of being a silly bird. Even a tame goose shows much instinct and attachment; and were its habits more closely observed, the tame goose would be found to be by no means wanting in general cleverness. Its watchfulness at night time is, and always has been, proverbial; and it certainly is endowed with a strong organ of self preservation. You may drive over dog, cat, hen, or pig; but I defy you to drive over a tame goose. As for wild geese, I know of no animal, biped or quadruped, that is so difficult to approach. Their sense of hearing, seeing, and smelling, are all extremely acute; independent of which, they appear to act in so organized and cautious a manner when feeding or roosting as to defy all danger.—*Sportsman.*

A Green street young lady was preparing to get married last week, and while the whole family were engaged in making snow-white habiliments, an old aunt from the country entered, who was not aware of the approaching nuptials. As her eye fell on the array of white garments, one of the nieces asked: "Aunt Katie, don't you smell a mouse?" "Well, no," innocently replied the old lady, as she snuffed the atmosphere, "I don't exactly smell one, but I heerd one under my pillow last night."

When a common school teacher in Virginia found upon his examination papers the question: "How does a ship at sea find its latitude and longitude?" he arose to the question and promptly wrote: "It finds its longitude hot and its latitude kold."

Hard to beat—boiled eggs.



Graphic Centennial Sketches—Columbus Discovering America.

Young Folks' Column.

The Red Monkey.

The organ man was playing in the street below, and Sally was sewing with her mother in the little front room up stairs. Sally was only five years old, but she was working away on patch work, which one of these fine days was to be made into a quilt big enough for her mamma's bed.

By-and-by she heard a tap on the window. Sally dropped her needle and thread and everything. "Oh mamma, there's a monkey!"

Sure enough, there he was, standing on the window ledge, and holding his little scarlet cap in one paw. As Sally ran to the window the monkey began bowing very hard indeed, and tapped on the pane to be let in.

"Oh mamma, may I please just this once?"

Her mamma said yes, and so the window was opened and the monkey jumped into the room. He was dressed in a scarlet suit—jacket, vest and trousers, all trimmed with blue, which made his comical little face funnier than ever. His master below held on to the end of a stout leather cord, which was fastened in a tiny collar about the monkey's neck.

"We'll take good care of him," shouted Sally out of the window, and the man touched his hat, thinking that when the monkey came down he would bring lots of pennies.

"Can you shake hands, Mr. Monkey?" asked Sally.

The monkey couldn't, of course, say yes, but he held out his hand, which was just as well.

Sally's mamma was cutting out something from a long piece of cloth. This operation seemed to amuse the monkey very much, for after jumping on the tables and shelves, examining the things he came across, he stood by mamma's chair watching her very closely. How funny it was to see the cloth tumble away as the scissors passed along.

By-and-by mamma put down her work and the monkey snatched the scissors and rushed away to the top of the bookcase.

"Come down, sir, this minute, and bring them back," said mamma. But the monkey only sat there chattering to himself, opening and shutting the scissors just as well as mamma had done, and as she went to the window to call the man, what did the monkey do but get the leather string between the blades and cut it off with a snap. The man pulled on the string and it came tumbling down without any monkey on the other end. Then the man rushed up stairs, but as he opened the door the monkey sprang to the window and in a flash was up the spout on to the roof. Away to the house-top they all ran, but the monkey had climbed one of the ragged stone chimneys and was comfortably seated on top, biting his finger nails.

The man was in despair. He had left his organ in the hall, or I have no doubt he would have sat down on it and cried.

"I guess you'll have to build a fire and burn him up," said Sally, looking very sad.

"I'll tell you what we'll do," said the man, "we'll smoke him down."

Now, it was the middle of July, but that didn't make any difference. The cook went down stairs and built a tremendous fire of straw and green grass from the yard, and the smoke began to come curling out of the chimney, much to the monkey's astonishment.

Sally and her mamma took a large shawl, the nurse took a towel, and the organ man his coat, and it would have taken a smarter monkey than this one to get away from all that.

He stood the smoke just as long as he could and then made a rush, but Sally and mamma threw the shawl over him, and just as he was squeezing out the organ man caught him by the tail, and he didn't have any chance at all. But he went down stairs with his master looking just as if nothing at all had happened, and the man was the happiest organ man in the world, for he had his monkey and 25 cents, too, which Sally took from her red savings bank.—*New York Tribune, Jr.*

"Mamma," asked a precocious youngster at the tea-table the other evening, after a long and yearning gaze toward a plate of doughnuts, "Mamma, do you think I could stand another of those fried holes." She thought he could.

Lady Visitor (examining the school)—"What's the capital of Turkey?" Bright little scholar—"Please, 'm, it ain't got none—it's bankrup'!"

A pickpocket works on abstract principles.

Good Health.

Pure Air.

Time was—a long time before Adam had birth—
When animals could not exist upon earth;
The plants then had plenty of light, heat and food,
But the air wanted power to vitalize blood.

In the time through which this world's mutations have ranged,
The conditions of air have essentially changed;
And the plants which were once so gigantic in size,
Have been dwarf'd down to what we behold with our eyes.

In our coal mines, extended such depths underground
The solidified growths of that period are found;
Light and heat were thus stor'd, on a provident plan,
For the future convenience and comfort of man.

Air now is a fluid all animals breathe,
From the insect above to the worm underneath;
And the deep-swimming fish, far remote from the sky,
Without air in its water would instantly die.

To draw in a full breath is the work of about
Two seconds of time, and the same to breathe out,
But, before it comes back, the air taken in
Has been changed by its contact with blood through the skin.

The skin I now speak of, adapted to line
The inside of the lungs, is a membrane so fine,
To and fro through its texture it suffers to pass
Components of air, by the learned called gas.

Thus the air in the course of the moment it dwells
Diffus'd through the lungs, in the millions of cells,
Loosing oxygen gas, in exchange, one may say,
Receives carbonic acid and lakes it away.

When people stay long pent up close in a room,
Replacing what oxygen gas they consume
With carbonic, the blood, which requires to be fed
With oxygen, gets the carbonic instead.

Hence, alas! comes the typhus, our deadliest pest,
That steals on its prey while securely at rest;
Hence, chiefly, consumption, that scourge of the lung,
Which so often the human nest robs of its young.

Prevention of fever—beneficent phrase!
How to do it our statesmen seem still in a haze;
If they do mean to do it, I'll tell them a plan—
Prevent poverty, ignorance, crime, if you can.

There will always be very poor people, we know,
But don't you have to answer for making them so?
To the rights and the duties of labor give heed;
Promote self-reliance; help only in need:

Let the people themselves understand how it comes
That consumption and fever are rife in their homes;
The invisible air make them clearly discern,
And how they may breathe it in purity learn.

Abandon the fever nests known in your town,
Give more space in your street-ways by pulling them down; [dwell,
Purchase acres outside, build where workmen may
With their children and wives, in a home, not a hell.

For these homes they'll pay rent; but provide, at the charge
Of the public, a building, capacious and large,
Where men may resort for a lounge or a treat,
And the sexes on festive occasions may meet.

But, of all things, let all men have part of each day
For out-of-door exercise, study and play:
Supply proper means of so using their time, [crime.
And you'll keep them in health, and in freedom from

—*A. Power, in Sanitary Rhymes.*

Oatmeal in the Household.

In Great Britain children of all ranks are raised on an oatmeal diet alone, because it causes them to grow strong and healthful, and no better food can possibly be found for them. It is also quite as desirable for the student as for the laborer, and for the delicate lady as for her hard-working sister. Indeed all classes would be greatly benefited by its use, and dyspepsia, with all its manifold annoyances, can be kept at a distance. Oatmeal is most substantial food. It is said to be better than veal, pork or lamb, and quite equal to beef or mutton, giving as much or more mental vigor, while its great desideratum consists in one's not becoming weary of it. It is as welcome for breakfast or tea as is wheat or Graham bread. It can be eaten with syrup and butter as hasty-pudding, or with cream and sugar like rice. It is especially good for young mothers, upon whose nervous forces too great a demand has been made, and they lose the equilibrium of the system and become depressed and dispirited. Oatmeal requires to be cooked slowly, and the water should be boiling hot when it is stirred in.—*Baldwin's Monthly.*

For the protection of workmen who are obliged to handle lead and mercury compounds, the French chemist Melsens, recommends daily but very small doses of iodide of potassium taken internally. Melsens affirms that this substance dissolves the lead or mercurial compounds that are absorbed in the system and effects their rapid removal.

Domestic Economy.

Making Beef Tea.—After removing all fat, cut up three pounds of the best beef in to pieces the size of a small cranberry, put it into a stone china bowl and pour over it one pint of very cold water; let it stand in a cool place for an hour or so. This brings out the juice. Put the bowl into a saucepan of water that will allow the bowl to rest in it without quite touching the bottom, and steam in this way for two hours. Do not strain the liquor, because this process will remove more or less of the little particles of beef, which are very essential to the value of the tea. Pour and press all the fluid from the beef. It may be salted and given hot or cold. Should there be any fat on the tea, set aside until perfectly cold, when it can all be removed from the surface in a flake. For a child use two pounds of beef; for a baby one pound, to same amount of water. If the patient's stomach is very irritable, so that large quantities cannot be borne, you may resort to beef extract for nourishment; it is a more concentrated article of food, but not near so palatable as rich beef tea. Beef extract is made of lean beef cut in small pieces, and put into a bottle without any water or anything else. Set it into a kettle of water, which is to be kept boiling for two hours. Remove the bottle, subject the meat to slight pressure to remove the fluids, and season with salt.—*Country Gentleman.*

Starting a Fire in Still Weather.—All housekeepers have at some time realized the difficulty of lighting a fire in a still, damp morning, when the chimney will not draw, and vigorous blowing proves ineffectual. Science explains the trouble as "caused by the difficulty encountered in overcoming the inertia of the long column of air in the pipe or chimney by the small column of air that can be forced up through the interstices of wood and coal, at the bottom of which the fire is kindled." This may be remedied by first lighting a few bits of shavings or paper placed upon the top; thus by the heated air's forcing itself into the chimney and establishing there an upward current, the room is kept free from the gas or smoke which is so apt to fill the room, and the fire can then be lighted from below with good success.

Cooking Fish in Clay.—Fish cooked in clay are said to be very delicious. The way to do it is as follows: After preparing, cover the fish with clay two inches thick, and throw it into a hot fire. The clay hardens almost instantly, and the fish in its tough oven bakes through and through, retaining all its juices. The clay is then poked out of the fire, cooled with a dash of water, and a sharp stroke with a stick separates it from the fish. The fish's skin peels off with the clay, and the dish is ready. Brown bread and potatoes constitute the rest of the meal. A little experience will enable one to cook a fish perfectly in this way. The clay is a good absorbent of the strong odors of the fish, and takes away all but the sweetest and best flavors.

Cooking Greens.—The London *Garden* says: Greens are the simplest of all dishes; and yet in most cases they are not well served, for much depends on the manner in which they are boiled. The water should be soft, and a tablespoonful of salt added to a large sized pot of it, which should be boiling hot when the greens are thrown in; and then it should be kept on the boiling gallop, but uncovered until they are done, which can be told by their sinking to the bottom of the pot, and they should be skimmed out as quickly as possible into a colander, so that all the water will run out. Press them with a small plate, and then turn upon a platter, add a large piece of butter, and cut up fine. Serve hot.

Carrots Instead of Eggs.—An exchange says: It is not generally known that boiled carrots, when properly prepared, form an excellent substitute for eggs in pudding. They must, for this purpose, be boiled and mashed, and passed through a coarse cloth or hair sieve strainer. The pulp is then introduced among the other ingredients of the pudding, to the total omission of eggs. A pudding made up in this way is much lighter than where eggs are used, and is much more palatable. On the principle of economy, this fact is worthy of the prudent housewife's attention.

Baking Apples.—Buy a small tin apple-corer; core with it as many apples as you want, without peeling them; set them on a tin dish; place this in a hot oven, having first filled up the vacancies left by your surgery with the best of sugar. Let them bake till they are well done. Take them out, and if you do not know what to do next, call in your nearest and best friend for further advice.

Dried Green Peas.—Wash the peas, pour boiling soft water over them, sufficient to cover. Let them stand over night. Stew them for several hours, or until they are soft and pulpy. Add boiling water occasionally, and keep them covered closely while cooking. Add half a cup of cream and a little salt, and boil ten minutes; then dish up.

How to Make the Tea Go Further.—A method has been discovered for making more than the usual quantity of tea from any given quantity of the leaf. The whole secret consists in steaming the leaf before steeping. By this process, it is said, 14 pints of good quality may be brewed from one ounce of tea.

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Our latest forms go to press Wednesday evening.

No Quack Advertisements Inserted in these columns.

SAN FRANCISCO

Saturday, October 21, 1876.

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NEW ADVERTISEMENTS.

Farming Implements, Marcus C. Hawley & Co., San Francisco and Sacramento; Agricultural Implements, Linforth, Kellogg & Co., S. F.

The Week.

As we go to press this Wednesday evening rumors are rife of the declaration of war by Russia against Turkey, and the speck of war which first appeared in a province of Turkey now bids fair to engage the half of Europe in angry contest. The rumors have already filled the markets of the world with feverish excitement. Russian securities have declined rapidly in the London market, and war is thought inevitable. In New York gold rose from $1.10 to $1.13, and receded to 11½ this morning. It is impossible at this writing to determine how much fire there is in the early smoke of conflict which comes to us, but we admonish our readers to look sharply for the news, because the established truth of all that is now rumored will send our grain markets booming, and he who profits by the crisis of affairs will be he who is best informed of its features.

The event of the week in this State has been the rain. It falls early and catches many of our farmers unawares. It covers a wide range of country, according to the dispatches which we receive to-day. It comes upon much unsheltered hay and grain and drenches many acres of grapes and raisins. The extent of the injury cannot be learned this early. Opinions differ concerning the outlook. Some think we shall immediately have enough to start the plows; others look for a long interval of clear skies. No one should neglect to prepare for either event. Let outstanding and unsheltered crops be hurried to safety while yet the clouds tarry for a day. The skies are now blue and the sun shines brightly.

Agricultural Experiments.

The progress of agriculture depends upon the dissemination of the truth which is now in the possession of the few, and the acquisition of new truth. If all our farmers possessed the secret of success which the few enjoy and act upon, the art of agriculture would be improved and elevated, and prosperity would be hightened. If the few, comparatively speaking, could increase their valuable possession of truth to the extent of which the industry is capable, the science of agriculture would be attained.

The way to gain truth is to search for it. It is to be determined by experiment, by actual investigation. The true method of ascertaining facts is the scientific method. It matters not whether the experiment be conducted in the field, in the orchard, in the vineyard, in the stable or in the laboratory of the university; if it be conducted with a discriminating understanding of the conditions involved. and if the result be read in harmony with these conditions, it is a scientific experiment. A useful fact is no better if discovered by a practical farmer than if discovered by a professor, nor is it any worse. In so far as each gains the truth, each is doing something for the progress of agriculture. It is one of the hopeful signs of the times that this oneness of truth, however gained, is becoming more widely recognized. It is hopeful that the oldtime warfare between the so called "practical" and "scientific" is passing away. One cannot succeed without the other. True practice and true science are mutually dependent in their efforts for the promotion of agriculture.

The value of experimental stations for the discovery of the science involved in agricultural operations is becoming more generally recognized. The European stations are enriching our agricultural literature with most valuable discoveries. These new facts, coming to the attention of the farmer through his newspapers and periodicals, are being applied to farm work. The intelligence of the farmer enables him to adapt the new truth to the peculiar conditions which surround him. The changes in the application which he has to make require sometimes almost as great inductive skill as that which led to the original truth, and the farmer becomes in turn an investigator, a discoverer.

In our own country the tendency toward the public experimental stations is very marked at the present time. During the last two years a station, something on the European plan, has begun its work in Connecticut. New York is conducting some very valuable researches at Cornell university, and several other States, supplementing the endowment of the National Government, are pushing ahead for the truth involved in agricultural practice. The latest movement which we hear of comes from the Green Mountain State. One of the great interests of the State is the dairy, and the dairymen have an association which is one of the most wide awake in the country. The secretary of the society, Mr. O. S. Bliss, a gentlemen whom we know as one of the most enterprising and public spirited laborers for progress, writes as follows concerning the need for action in the way of discovering new and valuable truth: "Appearances indicate that more of the principles of successful and economical dairying will be developed in the next 10 years than are now known. This development will not be limited to the processes of manufacture and the marketing of the products, but will extend to the details of tillage, breeding, feeding, etc., embracing all the arts in any manner subsidiary to the dairy. Exact knowledge of principles and the effects of various practices is what we need and must have in the place of vague hypotheses and unfounded opinions. While the association should not relax any of its efforts to elicit information from any and every source as in the past, it should at once establish an experimental dairy farm, stocked and equipped, upon which a thoroughly competent and practical man may, by careful and exact experiment, sift every theory supposed to have a modicum of truth, bearing upon the material prosperity of the State."

We trust Mr. Bliss will succeed in his commendable effort. And the question arises, what lesson may be drawn from this enterprise? If in old Vermont, where generations of farmers have labored and do not yet understand the conditions under which they work and the agents they employ, there is need for public investigation and experiments for the public information, what is the need here, where a single generation has not finished its work, and where the capabilities of the soil and climate are altogether beyond our understanding of them? And what are we doing to possess ourselves of this knowledge? We are working with the most enlightened and progressive farming population of any State in the Union, and each year new agricultural triumphs are being attained. We are extending our production and our commerce by sending new products to new markets. This is good. But there are questions continually arising which no man can answer because the answer must be sought for by most careful investigation and experiment. What are we doing as a State to bestow upon our grand agricultural interest the benefits of a scientific investigation of the thousand questions which arise concerning the true practice under our new conditions?

QUERIES AND REPLIES.

Zante Currants.

EDITORS PRESS:—I have what I bought for the Zante currant; it grows a vine like the grape, and the fruit is like the grape; color, dark, with reddish cast, and has one seed. Is this the Zante currant?—G. D. C., Riverside, San Bernardino county, Cal.

Yes; in all probability. The fruit known as Zante currant is made from a small grape grown in Zante, one of the Ionian islands, belonging to Greece. It is properly known as the Corinth grape. There are two kinds, white and black. The Zante currant of commerce is seedless, with perhaps exceeding rare exceptions. There has been trouble had with producing the fruit in this State, because, as our querist notes, the berry is sometimes found with a seed in it. It is believed that this trouble has come from growing the Zante vine in proximity to other grape vines. For example, we understand Mr. West, of Stockton, obtained imported cuttings and grew them in the vineyard to find, ultimately, that the seedless grape had a seed. This he finally attributed to the nearness of some Rose of Peru vines, thinking that the blossoms of the Zante were fertilized from the Rose of Peru. If our querist can account for his seeds from some such fortuity of situation he need not mistrust his stock. If not, it is probable that his cuttings were not pure at first.

Plants for Names.

We received from G. B. Kneeland, of Arcata, Humboldt county, four plants for names. Mr. W. G. W. Harford, director of the museum of the Academy of Sciences, furnishes us with the following; "No. 1. *Heteromeles arbutifolia* (laurel hawthorn); No. 2. *Garrya elliptica*; No. 3 *Cornus Californicus* (one of the "dogwoods;" No. 4 the grass, (rye?) *I. Solium tremuleutum*. It is said to be poisonous to cattle, a report by no means established as true. It is worthless, however, as stock will not eat it."

A Poultry Ring.

There has sprung up something in this city which, if our information of it be accurate, is one of the most reprehensible combinations which it has entered into the heart of men to devise. It is represented to be a society of retail poultry dealers, which aims to corner all the poultry and game which comes into the hands of our commission merchants, and force them to sell to no one except members of the society. Now, so far as the matter is a contest between the retail dealers who have stalls and those who patrol the streets with wagon, or pole and basket, we have no interest or care for it, except that any combination to corner the product is a wrong upon consumers. But the trouble as we see it lies in the fact that these men, by combining and forcing the commission merchants to sell to them and not to others, restrict the legitimate demand for the produce of the poultry keepers and rob them of any advantage in price which may result from a healthy competitive trade. There have been cases cited where the coops when offered at auction at the wharf have been sold to the low instead of the high bidder, because the high bidder was an outsider. Any combination which interferes with legitimate trade in this way is an outrage upon the producer and should be swept away. Of the working of the so called association the *Bulletin* gives the following items: "The effects of its arbitrary dictates are being very seriously felt, not only by retailers outside the ring, but by the commission agents also. The latter are losing the custom of large numbers of retail dealers whose trade they formerly enjoyed. All Chinese peddlers who formerly bought from the commission agents are now compelled to make their purchases from the members of the Poultry and Game Dealers' protective association. An incident occurred yesterday in front of the store of one of the principal commission produce agents in the city, which illustrates the workings of the association. A Chinese peddler wanted to buy a coop of ducks. The commission agent in whose hands the sale of the ducks had been entrusted by his farmer patron, owing to the arbitrary rules of the Poultry and Game Dealers' protective association, was prohibited from selling the ducks to the Chinaman, inasmuch as it would have resulted in the withdrawal from him of the business of all the members of the association. A member of the protective association happening to be in the store at the time, purchased the coop and its contents at a given price per dozen, and without moving the property from the sidewalk sold it to the Chinese peddler at an advance of two or three dollars per dozen. Commission agents in the produce business are now beginning to fear that the next move of the protective association will be to establish a price list for their adoption which will be simply ruinous to their patrons. In fact, they regard the restrictions from selling in quantities to any retail dealer who may come along as equivalent to that already."

LINFORTH, KELLOGG & Co. are pushing their plow business with activity. An advertisement on another page presents the claims of the Myers Excelsior gang plow, which we illustrated in a recent issue, and other notable plows. We ask attention to the advertisement.

The Dairymen's Association—No. 2.

The first installment of our report of the dairymen's convention closed with an outline of Prof. Hilgard's lecture, in which the subject of the improvement of pastures was considered. The Professor's remarks were listened to with much attention, and afterward there sprang up a discussion in which several gentlemen joined. We regret that we have not a shorthand report of the different speeches, because they embodied much valuable experience and observation, we cannot do better than to offer the reader some brief notes which we took down as the meeting progressed.

At the close of the lecture, the president, Judge Stanly, called upon all present to present their views on the subject, inviting Mr. I. C. Steele, of San Mateo county, to open the discussion. Mr. Steele stated that he had a dairy experience of 19 years in this State. He began on the Point Reyes tract; there they relied upon the native or natural grasses, as the range was large and feed abundant. On the coast the feed is always green at the root and whenever there is a rain or heavy fog it springs up quickly and gives the cows enough to support themselves. In Marin, San Mateo and San Luis Obispo counties the cattle keep fat the year round.

On his present ranch in San Mateo county, Mr. Steele has tried alfalfa with poor success, owing, he thought, to the cold. He had likewise failed with mezquite grass. He had now in some orchard grass; this is the second year and it is too soon to tell certainly how it will turn out, but it is still green and he thinks it will be a success. Burr clover grows everywhere on the coast. He had found it so that it would stretch up chin-high in October. This was growing in a place where the water backed up from a lagoon, and this was doubtless the cause of the late freshness. In San Mateo county Mr. Steele had noticed seven kinds of clover, which he described. They have different characteristics. One is a sort of peavine clover which creeps along the ground. He had seen one shoot which had crept out 16 feet from the root; there is also the red clover, resembling somewhat the red clover of the East. It grows in wet places or where the land is sandy, near the water; it is very rich and productive and keeps green very late.

Speaking on the wearing out of pastures, Mr. Steele gave over-stocking as one of the chief causes, and he had achieved the best results by giving the land a rest instead of plowing up and re-seeding. On one of his ranches there was once a piece of land which was bare as a floor. It had been literally shorn of its vegetation. He was advised to break it up and put in some seed. He concluded not to do it but to give the piece a rest. The result was that the next year the spot was covered with feed while all around it was bare. It was a very dry season and he made more money from that piece of land than from any other piece he ever had, considering the capital invested. He believes that if he had broken it up he would have gotten nothing out of it.

Concerning the spread of foul weeds in pastures, Mr. Steele spoke forcibly. He urged the duty of all farmers to work to overcome them, because there is little use of one man fighting them if his neighbors permit the air to become full of the seeds. One reason for the incoming of weeds is the same as that of worn-out pastures, viz: over-stocking. When the land is shorn of the forage plants, nature makes an effort to cover the ground, and gives the weeds a chance to spring up and flourish. The way to kill weeds is to cut them carefully and thoroughly just before the seed matures.

Robert Ashburner, of San Mateo county, called attention to the revised opinion of scientific men concerning the fat-forming quality of leguminous plants. For a long time it was the dictum of men who spoke from analysis that the legumes, which are rich in albumenoids do not serve the animal in fat. The contrary has been proved experimentally. He is feeding bean meal (as recently described in the RURAL PRESS) and alfalfa, and never had fatter cows, better milk or more butter to the milk.

J. G. Knowles, of San Mateo county, stated that he can keep cows ten to one on alfalfa more than on any other food he can grow. He nevertheless regarded burr clover as best of all the feeds, but not so prolific as alfalfa. His location and climate he thought almost like Mr. Steele's, and yet he can grow alfalfa with marked success. He has cut it three times this year; the first two cuttings being very heavy.

Mr. Steele replied that he could not tell why alfalfa failed with him. He supposed it was the cold, but Mr. Knowles' place was also on the coast. He could raise 100 bushels of barley to the acre on land which would not keep alfalfa.

Judge Stanly gave the meeting a brief description of his experiments with alfalfa on reclaimed salt marsh. He put in 40 acres. The land was not in good condition but probably better than uplands are generally prepared for seeding. He sowed 35 pounds to the acre, being determined to get in enough seed. With the alfalfa was put in 45 pounds of rye to the acre. The rye came up very thick. By the following March the alfalfa was three or four

inches high. Then there came a March storm. The flood gates were out of order and the water lay upon the ground three or four days. The alfalfa was all drowned out. The destruction seemed to be not in the mere fact of the flooding, for the piece was overflowed earlier in the season without injury.

E. A. Davidson, of Gilroy, remarked that he believed in feeding more than most dairymen. He was milking 225 cows and had a good dairy barn and cut feed for the cows. We will not give more of Mr. Davidson's arrangements at this time, as we expect soon to visit Gilroy and note fully the improvements which we discover.

On the second day of the convention there was had some further discussion of forage crops. We shall introduce them in this part of our report to gain a connection of subject.

A. Mailliard advocated the sowing of sorghum for dairy cows. It is well adapted to serve as a green feed in the dry season. He had great success with it in New Jersey. He cut it three times in the season and took 40 tons from the acre. He found the plant did well in Marin county. It has grown two years from the root. One advantage in the sorghum, in Mr. Mailliard's opinion, was the fact that the cattle would eat it all clean and leave none, as with coarse cornstalks.

Mr. Ashburner had tried sorghum on his place in San Mateo county and it had failed because of the cold.

Mr. Mailliard introduced another forage plant which he has been using. It is called the "tree cabbage." He received some seed from the island of Jersey. It was sown in May and is now several feet high. He strips off the lower leaves and feeds them to the cows and they grow out again. The plants look now as though they were going to grow into trees and leaf out again next spring.

This discussion was very interesting to all present at the meeting. The subject is of the first importance to dairymen on this coast, and we hope that at the next meeting of this association, when the subject comes up, we shall have a wider expression of experience and results of experiments. In our next article on the work of the convention we shall take up the addresses and discussion on the breeding of dairy stock.

Improved Pastry Bureau,

We illustrate on this page a "pastry bureau," recently patented through the MINING AND SCIENTIFIC PRESS Patent Agency by J. R. Felter, of San Bernardino, Cal. The invention consists substantially of a cupboard constructed with side drawers or compartments and a centrally located flour chest, the top of which constitutes a pastry bureau, whereon pastry, etc., may be conveniently manipulated.

In the cut a a^1 a^2 represent the end and rear sides of a cupboard which is provided with a hinged lid, b, in the usual way. A portion of the front part, C, of this cupboard, consists of a hinged board, d, which serves both as a lid for the flour chest, e, which is centrally located within the structure, and as a cover or door for an opening formed in the front, C, of the cupboard, just above the flour chest. The object of the opening is to provide means for easy access to a pastry board, f, which will be exposed after the lids, d and b, are opened. The board, f, is denominated a pastry board by reason of its special fitness as a table or board for the reception of the several ingredients to be kneaded together in making the cake, etc. It forms a horizontal division in said cupboard, located at a suitable distance below the top of the cupboard, and also constitutes the top of the flour chest. The depth of the flour chest may be raised according to the depth of the cupboard, its front opening being of sufficient size to permit convenient access to the flour.

The lid d which is hinged to the side C, is of such dimensions that when swung into a vertical and closed position its upper edge shall be flush with the upper edge of the front part C, of the cupboard The lid d, is secured by buttons h, or any suitable means. K K, are drawers arranged between the sides of the flour chest and cupboard and will be found exceedingly useful for the reception of various articles. S, is a spice box with hinged lid and temporarily connected with the pastry board by a hook, so that it can be removed when desired. To use the pastry board, the top lid, b, is swung open and held in suitable position by means of a hook, and the side lid d, swung open and down upon the front side of the cupboard.

This article of furniture for the kitchen department of a house is intended to lessen domestic labor. In using it the housewife has the articles for pastry work convenient, and does not have to take two steps to get the things used in making pie, cake, bread, etc. Everything used for this purpose is kept free from dust, the "bureau" being specially arranged for this purpose. It has also other advantages, having four drawers, each of an average capacity of 25 pounds, in which can be placed various groceries in quantities suitable for kitchen use. It occupies no more room than an ordinary sink. The kneading board is under cover and out of the way. The flour compartment holds a barrel of flour, and the till will hold the roller, yeast powder, cake cutters, etc. Those desirous of further information can address the inventor as above.

SATURDAY is now generally observed in England as a half-holiday.

On the Destruction of the Phylloxera.

At the meeting of the California Academy of Sciences, held on Monday evening, October 16th, the following paper was read by James Blake, M. D., of San Francisco:

My attention having been directed some months ago to this new pest which so seriously threatens the destruction of our vineyards, a series of experiments were undertaken under my direction at one of our largest vineyards in Sonoma county, with the view of discovering some means of checking the progress of the disease, as it has already almost destroyed some of the most promising vineyards in that locality. At the time of commencing my investigations I was aware that the subject had occupied the attention of some of the most distinguished scientists in France for the last three or four years, nor should I have entered on the investigations with any hope of success, had I not known that the efforts of these gentlemen seem to have been directed to the destruction of the insect without having acquired sufficient knowledge of its natural history. So far as known the insect is one which goes through a series of generations without changing its form, during which many thousands of insects can be produced from a single impregnated ovum (75,000,000 have been calculated), but after a certain number of these parthenogenic generations the power of non-sexual reproduction ceases, and the development of a new form becomes necessary for the continuation of the species. This alternation of generations takes place in many of the lower tribes of animals; the different generations of the same animal being in some instances so dissimilar as to have been mistaken for different species. In the phylloxera the forms usually met with, or, at least, that had been described when I commenced my investigations, were two non-sexual forms, the nymphs and nurses, the former being a small insect with legs which allow a certain degree of locomotion, the latter being a form in which the legs are so slightly developed as to be hardly visible, so that the insect can move but a very short distance from the spot where the ovum is deposited. Besides these two non-sexual forms, whose life is entirely subterranean, there is a winged form in which the two sexes are developed, and which passes the greater part of its existence above ground. Within the last few months it has been discovered that this winged insect deposits its eggs on the leaves and bark of the vine, and from these eggs it is probable that a new generation of nurses and nymphs arises which, at least for many generations, propagate themselves on the roots of the vine without any males being produced. There were two important questions relating to this winged form of the insect which had not been decided, viz.: whether they deposit any eggs on the root or bark of the vine under ground, and the form of the insect that is first produced from the impregnated ovum. These questions have an important bearing on the means to be taken for the destruction of the insect, but unfortunately neither of them had received a satisfactory answer. In the spring of this year I presented some specimens at the microscopical society, of a form of the insect that had not been described. In my frequent examination of the roots of diseased vines during the winter, the insect was only met with under the form of nurses, which remained in a dormant state from the beginning of November to April. The first sign of a renewal of activity in the insect was the appearance of a form much resembling the nymph but rather larger, with a sort of gelatinous body, and so transparent that from ten to twenty ova could readily be distinguished in the abdomen. It was much more active than the nymphs, running about the roots with agility. My own opinion is, that it was a form of the insect directly developed from the impregnated ovum, but whether it had been hatched above the ground and had traveled down on the root, or whether any impregnated eggs had been deposited beneath the surface from which it had been produced, is not known. The same form of insect was described by Mr. Balbiani at a meeting of Academie des Sciences at Paris, about two weeks after I had exhibited it at the microscopical society. On seeeing this form of the insect, the idea at once struck me that this was the phase of its existence in which it could most readily be destroyed, and believing that this form was one which was necessary for the continuation of the species, its destruction would necessarily be followed by the disappearance of all the other forms.

The Bisulphide of Carbon

Seemed to present the only agent likely to be efficacious against the insect. Owing to the extreme volatility of this substance, its vapor, when it is introduced at some distance beneath the surface, would permeate the earth in all directions over a considerable area, and thus would have a chance of reaching even the distant rootlets of the vine Although it had been reported in France that the substance was not destructive to the insect, yet I believed that the soft, apparently nude form, which I had just discovered, would not resist it. In order to introduce the substance beneath the ground, an iron tube was taken with a sharp steel point at one end, the sides being pierced with a few small holes near the bottom, and a piston was made which could be forced down the tube. The tube was driven into the earth for a distance of two or three feet, near the root of the vine; some bisulphide of carbon was poured into the tube, which was then filled with water, and the contents of the tube forced out into the ground with the piston. The tube was then drawn out and the hole filled up. The quantity used on each vine was about an ounce and a half of the bisulphide. This was introduced into the ground through two or three holes. The substance was applied in the end of April and early part of May, only one application being made, and in every instance to plants that were evidently suffering from the disease. The result has been, on the vines so treated the insect has almost entirely disappeared, whilst on vines that were in the same condition last year as those to which the bisulphide had been applied, but which were not treated, the roots swarm with the insect, so that none of them are likely to survive this season, at least of those that were most affected. In the early part of the season no great difference was noticed between the foliage of the vines that had been treated and the others, but within the last six weeks the vines on which the insect had been destroyed present a decidedly healthier appearance. A more marked difference is observable in the roots, specimens of which I submit for inspection. It will be seen that whilst the roots of the vines to which the bisulphide has been applied present a comparatively smooth and healthy appearance, the roots of the untreated vines are rough and covered with dead and decaying bark. In both sets of roots the lower portion is generally dead, the result of the ravages of the insect during the last season; but whilst in the plants which are still infested with the insect this process is still going on and will continue until the vine is destroyed, the other roots are throwing out quite a number of healthy rootlets and are covered with a new and smooth bark, so that they will be prepared in the ensuing year to throw out a new crop of rootlets.

As regards the

Practicability of the Treatment

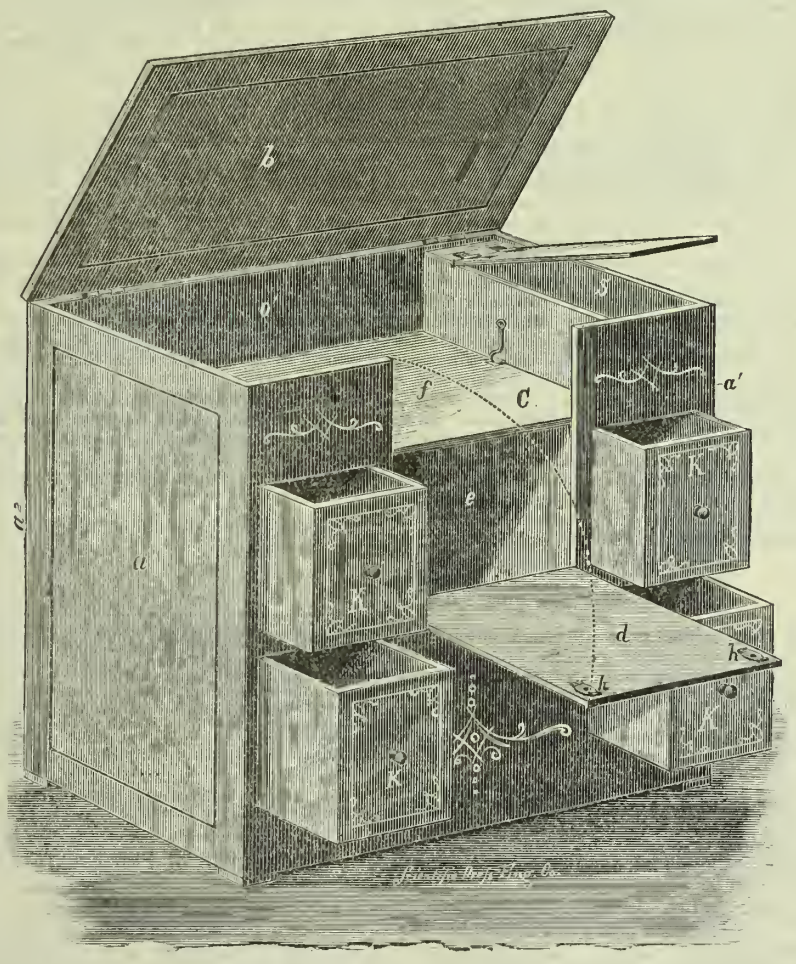
This presents no obstacle, as the bisulphide of carbon can be obtained now in a comparatively pure state at about 50 cents per pound; and I am confident it can be produced in a form quite suitable for use in the vineyard at a third of the price, so that the cost of the material for each vine would not exceed two or three cents. The process of applying it is simple, and can be carried out by any ordinary laborer. The time for applying it should be during the month of April, as at this season the insects that have survived the winter have not begun to lay their eggs, and experiments that have been carried on during the summer show that whilst the bisulphide is a certain poison to the insect in all its forms it does not destroy the egg. This is the reason of its reported failure in France, where probably it was not applied at the right season. By using it in the spring, at the time that the winter eggs at the surface are being hatched and before the hybernating form has commenced laying, we have the insect entirely in that phase of its existence in which it can be killed by the bisulphide; and experience has shown that at this time its destruction is completed by one application of the poison. The only place where the insect has been found on some few of the vines treated has been near the surface, where the vapor became too much diluted with the air to prove fatal, and one patch of the insect was found at a depth of more than four feet, where it was possible the vapor had not penetrated. In the course of my experiments I have discovered that the refuse lime from the gas works will kill the insect for some distance beneath the surface when it has been applied round the roots, and from what we know of the natural history of the insect it is almost certain that it will shortly die out at any great depth, when it cannot be renewed by fresh nymphs developed from the winter ova. The

Plan of Treatment

I have advised for the diseased vines is, during the winter, and as late as possible before the cessation of the rains, to apply three or four pounds of the lime refuse round the stem, drawing the earth away from the stem to the depth of two or three inches, at the same time brushing the stem for six or eight inches above the ground with train oil. Then about the middle of April to the first week in May use the bisulphide of carbon under ground in the way I have pointed out, making three holes round each vine at a distance of 18 inches from the stem, and using about two-thirds of an ounce to each hole, the holes when the tube is withdrawn being well filled with earth and stamped down.

When the vine is so far diseased as to have suffered materially in its foliage, the better plan is, I think, to pull it up. But a careful examination will detect the presence of the insect on the roots of vines the foliage of which appears quite healthy and which are bearing a full crop of fruit. In this stage of the disease the insect is not in sufficient numbers to so completely absorb the descending sap as to have prevented the formation of new rootlets, and whilst this is the case the vine can readily recover itself. Whatever may be the case in other countries, I am convinced that here the destruction of the lower portion of the roots is not caused by the direct attack of the insect, as I have found the roots dead two or three feet beyond where any traces of the insect could be discovered. Owing to the peculiarities of our climate the vines send their roots much deeper here than in Europe, and although in the older vines in the vineyard where I investigated the disease, the roots derived their principal supply of nourishment at depths from six to ten feet, I have not found the phylloxera at a greater depth than four feet, although the roots were dead as far as they could be traced, and far beyond any part that had been directly attacked by the insect. Where the vines are pretty badly diseased, I think the application of the bisulphide at the beginning of the winter, say in November, would more than repay the expense, as thousands of insects would be thus destroyed that otherwise would be feeding on the juices of the vine during the next five months. This, however, must not supersede the use of the poison in the spring at the time when the winter eggs are developed.

Where the vines have not been already attacked, I believe the application of train oil to the stem and the gas works lime to the surface round the top of the root will protect them, or a small quantity of the bisulphide introduced near the root a few inches beneath the surface in the spring, would certainly save them from the attack of the insect.



FELTER'S PASTRY BUREAU.

YELLOW fever is dying out in Savannah and New Orleans.

Continued from Page 267.

noticed as a prize bull, the second going to C. Younger's Red Oxford, if we are not mistaken in our jndgment, he will prove a prize to the man who nses him in his herd, whether it be for the purpose of maintaining the already attained characteristics of a pnre bred herd, or for the further improvement of grade cattle, his great substsnce snd snperior quality giving him a fitness for the latter purpose but too seldom met with in a bull. The

Four-Year Old Cows

Are a good clsss, the second prize going to Col. Younger's well known Sprightly, whom we should have placed first were it not for a slight failing in the hind quarters; otherwise she is a cow hard to beat. On answering a friend's inqniries as to where the ribbons should go, the words "to the two rosns" had harely passed our lips when, to the surprise of msny of the bystanders, the blue ribbon wss placed on Wm. Qninn's Fnchsia Second; Pet of Geneva, that we had marked first, going unnoticed.

Against the two three-yesr old prize cows we note, slike, both want quality and loin; and against the two-year olds, Col. Younger's Rosa Nell, first, a good heifer, snd Wm. Qninn's Lsdy Emmet, a good straight heifer, but rather plain looking. In the calf class the prize is rather keenly contested for by two of Jones & Co.'s, Gem and Jenny Newham, and J. D. Carr's Maid of Monterey, who took the second premium, the first going, rightly we think, to Gem. Those outside the ring treely expressed their opinion that the first ought to hsve gone to Jenny Newham, which we had marked second; who, to look at in the distance, did appear a higger and perhaps fully as good a shaped calf, but the superior hair and touch of the smaller Gem acted like a spell in holding us to our first impression, agreeing with the decision of the judges.

Considerable surprise was expressed by the on-lookers when the blue ribbon was awarded to Col. Younger for the best herd premium. Whatever reason the judges had for making the award, there seemed to be but one opinion expressed by those ontside the ring, viz., that J. D. Carr had the best herd in his six cows, headed by the bnll Louan's Lord Oxford. A few

Jersey Cattle

Were shown, owned, with one exception, by Messrs. J. P. Pierce snd C. B. Polhemus. We do not protess to be an expert in regard to this class of cattle, but some of those owned by the latter gentlemsn did not appesr to be "trne to their colors." Indeed, we heard the opinion pretty freely expressed that that gentleman had been csreless about their breeding and had got them mixed a little. Our attention was attracted by the peculiar appearance of a heifer in the yearling class—sn old looking beast for her years. Upon exsmination of her teeth we found her with the third set of incisors pretty fully developed. Reslly, this is something new in cattle dentistry in regard to the age of s besst!

However our remarks may be received by your readers, we hope they will be looked upon as impartial and taken for what they are worth. We are aware that it is a delicate task for one breeder to publicly criticize stock exhibited by other breeders, bnt, as we heard one of the judges say, on leaving the ring at the conclusion of their labors, we have done the best we could.

ROBERT ASHBURNER.

Baden Station, San Mateo, Oct. 16th, 1876.

ARBORICULTURE.

The Cork Tree.

We recently hsd an interesting statement of experience with the cork tree from one of our readers. We learn from the *Bulletin*, that one of our city seedsmen is planning to introduce the seed, snd place it at the disposal of those who desire it. The *Bulletin* says: Several experimeuts have been made with the cork tree in various parts of the State with considerable success. There is a prospect that it will soon be more extensively introduced, Sontag & Co., of this city having sent an order to Spain for three pounds of seed, which will be distributed gratuitously to farmers throughout the State. This valuable tree grows abundantly in Spain, Portugal and Italy, in thin, rocky soil, and is very tenacious of life. It is a species of oak, with a soft and elastic bark. When the tree is 15 years old the barking is commenced, and may he repeated every eight or ten years afterward, the crops improving both in quality and quantity at each operation. Trees thus barked, it is said, will live 150 years. The cork is removed from the trees in July and August. This is done by making incisions around the tree and longitudinally to the root, when the pieces are easily detached. These are then soaked in water, pressed under heavy weights, dried before the fire, and sacked or packed in bales for transportation. The cork cutters divide the sheets of cork into narrow strips, and after cutting these of a proper length, round them into a cylindrical form with a very sharp, thin-bladed knife. Spanish black is made from the parings of cork. Cork manufacturers in the Eastern States and Europe find a large market in California, and the demsnd is increasing correspondingly with our wine product. It is said that a full grown tree will yield at each cutting the value of from $5 to $6. In addition to the value of the tree for commercial purposes, it makes an excellent shade and good timber. The latitude of San Frsncisco is the same as the southern portions of Spain and Portugal, the climate similar, and the soil of the foothills of the Sierra is not unlike the soil in which the tree has been so successfully grown in the old world. When the tree is once firmly rooted in the ground no more care and attention to it is required thsn with the oak. In Spain large tracts of lsnd sre devoted to its culture, and each year a section only is stripped of its bark, which insures an annusl crop. The experiment of transplanting the cork tree to our soil is well worth a trial by the owners of large tracts of nnproductive land.

USEFUL INFORMATION.

Heating with a Grate.

We find in the Boston *Journal of Chemistry* some suggestions concerning the use of grates and how they should be constructed: An ordinary room, say 15 feet square and 10 high, occupied for day use only, can be fairly warmed and ventilated by one o en grate fire; but this grate must be so constructed and set as to have an air space behind and around it, and this space must he supplied with out-door air by a special shaft or an opening through the outside wall, in either case regulated by a damper. The direct radiation of the fire will heat the room and the occupants to some extent, and the cold air introduced at the back will he warmed and pass out through openings in the chimney breast to the ceiling level, where it will flow to the opposite side of the room and be drawn down to and across the floor, a part of it feeding the fire or passing up the smoke flue over the fire, and the remainder going up the face of the chimney breast and circulating as before. Thus the room will he fed with a constant supply of sweet air, and a corresponding portion of the vitiated air will be removed, while the whole atmosphere will be gently but effectually stirred, and the temperature kept evenly warm in all parts. Those who need most heat can sit near the fire and thus have a larger share of the direct radiation, while the warmer-blooded can remain near doors or windows without fear of being chilled on one side and overheated on the other. There are several grates patented in England which act in the way described, and their introduction here is only a question of time. In fact, the original Franklin stove was arranged on the same principle, though the modern one is like it only in name, being simply a portable grate with no supply of fresh air except such as is drawn into the room through doors and windows.

Hints for Practice.

A GOOD varnish for white wood may be made by dissolving three pounds of pure white shellac in one gallon of spirits of wine, then straining and adding one and one-half gallons more of spirits. If the shellac is pure and white this will make a transparent covering for white wooden articles.

A SPONGE may be bleached almost snow-white by the following process: Soak the sponge in dilute muristic acid for 12 hours, wash well with water to remove the lime, then immerse it in a solution of hyposulphate of soda, to which dilute muriatic acid has been added a moment before. After it has bleached sufficiently remove it, wash it again and dry it.

THE following recipe for a beautiful red ink is given by Metra, of Paris: Dissolve 25 parts, by weight, of saffranine in 500 parts warm glycerine, then stir in carefully 500 parts alcohol and an equal quantity of acetic acid. It is then diluted with 9,000 parts water, in which is dissolved a little gum arabic.

ARTIFICIAL ivory is produced as follows: Boil one pound of ivory dust with water to a jelly; to this add one ounce each of zinc oxide and shellac dissolved in alcohol. Pour the pulpy mass into forms and allow it to become dry in the air, after which it is subjected to hydraulic pressure. The finished material may be cut, sawed and turned as well as natural ivory or bone.

Levee Building.

As is generally known, the United States is building a levee on the San Diego river to turn the water into False bay. There has arisen some controversy concerning the strength of the levee, and John H. Weeden writes to the San Diego *Union* upholding it. We do not propose to take part in that controversy, but quote from Mr. Weeden's letter some facts concerning the dimensions of certain levees which have proved effective in other localities. Levee building is one of the great questions with our engineers and agriculturists, and the collected information will be generally valuable. Under date of Washington, July 2d, 1874, a board of engineers was convened for the purpose of examining into and reporting upon the levee system of the Mississippi river. After a careful study of the whole problem they submitted their report in January, 1875. This report is exhaustive of the subject, and for accuracy of research and weight of authority is undoubtedly entitled to an equal place with any report that has ever been made. The following excerpts are from this report as printed in the "Report of the Chief of Engineers, U. S. A., for 1875:" "In 1851, the levees of Louisiana nsually hsd the crown equsl to the hight, with slopes of 1 on 1. The present formnla for cross-section is, the crown equal to the hight, with slopes of 1 on 5. The levees of the State of Mississippi have crowns of 5 feet, with slopes of 1 on 6 toward the river and 1 on 2½ toward the swamps. Arkansas levee laws reqnire for every foot in hight 1 foot wide on top, and in addition 7 feet base. The section recommended in the 'Physics and Hydrsulics of the Mississippi' for levees of moderate hight is, the crown equal to the hight, with slopes of 1 on 3 on the river side, and 1 on 2 on the land side. For the immense levees required to close old bayous it is important to distribute the weight, and a crown of 6 feet with a front slope of 1 on 3 and a rear slope of 1 on 4 seems to be sufficient nnless the soil is very sandy. The last Yazoo psss levee was 40 feet high, its crown was 10 feet, with a front slope of 1 on 5, snd s rear slope of 1 on 3. The Hushpuckana levee was 43 feet high, its crown was 8 feet with slopes of 1 on 3. Both of these levees resisted the flood of 1874."

Leaving the United States, the following from the "Physics and Hydraulics of the Mississippi," giving the dimensions of the principal levees in Europe, is interesting for comparison. "The French dikes on the Rhine between the Black Forest and the Vosges mountains, where the hight is 7 feet, have a width of 10 feet, the slope toward the river being 1 on 2, and toward the land 1 on 1½. The dikes of the Rhine in Holland, when near the river bank and used as roads, have a width of 20 feet on top when 16 feet high, a slope of 1 on 3 on the river side and 1 on 1½ on the land side. The outer slope, when exposed to running ice, is reveted with brick or facines. When the dike is not near the river bank and is not used ss a road, the width is 6½ feet. The dikes of the Po (those of the Adige are generally the same) are 2¼ feet above the highest flood mark; usually the width is equal to the hight with slopes of 1 on 2."

These exsmples might be continued almost indefinitely, but the foregoing are deemed sufficient for our present purpose. I sdd, however, that this board, as the result of its studies, recommended the following cross-section to be adopted where the levees are less thsn 10 feet in hight: Width on top equal to the hight, fore slope 1 on 3, rear slope 1 on 2.

The following table shows at once the comparitive dimensions in the cases cited, the levee in esch case being assumed as 6 feet high, this being the case with the San Diego levee:

LOCALITY.	Width of top in feet.....	Width of base in feet.....	Area of cross-section, ft..	Weight of material per linear foot.
Mississippi River, Louisiana.....	6	42	144	14,400
Mississippi River, Mississippi.....	5	56	183	18,300
Mississippi River, Arkansas.....	6	48	162	16,200
Recommended in "Physics and Hydraulics of Mississippi River"...	6	36	126	12,600
River Rhine, French dikes.....	10	31	123	12,300
River Rhine, Holland.....	6½	33½	120	12,000
Po and Adige.....	6	30	108	10,800
Recommended by Warren's Board.	6	36	126	12,600
San Diego.....	23	41	192	19,200

NOTE.—The weight of earth is assumed in each case to be 100 pounds per cubic foot.

Construction of Petroleum Tanks.

The magnitnde of the petroleum resources of some of our Southern counties is attracting the attention of capitalists, and investment in the shape of machinery, etc., is being freely made. A necessity of the industry is for tanks. We find in the *Scientific American* an article on the construction of tsnks, written by W. S. Newall, which may be of value to our Sonthern readers:

Storage tanks, whether built by private enterprise or constructed in the interests of the pipe lines, are necessarily of iron. They must needs be of some such material in order to resist the pressure of enormons quantities of flu'd intended to be stored within them. Their contents vary all the way from 8,000 or 9,000 to 25,000 barrels of 42 gallons each. These tanks are constructed of heavy iron, riveted together and made fluid tight in the usual boiler fashion. The first step, after the bed has been made by carefully compacting and leveling the ground on which the tank will rest, is to lay out the sheets which are to constitnte the bottom on wooden horses properly arranged in the bed. These bottoms are then riveted together until a vast iron disk of the required diameter is produced; the diameter in the case of a 20,000 barrel tank, for instance, being about 80 feet. It is calculated in a rough way that the bottom of the tank, with the first ring of siding attached, is chargeable with half the cost of the whole tank. This first ring is attached to the bottom by means of a number of L-shaped pieces, to which these parts are respectively riveted. The remaining rings are attached or built up in the usual boiler fashion. At the proper time the wooden bases are withdrawn; and by means of jack screws or similar devices, the tank is let down npon its earthen bed. The roof is either of iron or of wood. Iron roofs are sometimes constructed of something akin to ordinary roofing metal, properly supported by a frame within, if the tank be small; but if it he large, the roof is generally constructed of heavier sheets, riveted together. The vast majority of tanks have wooden roofs. Out of 85 exsmined recently, only 18 had iron tops. Wooden roofs are generally tarred and graveled. Sometimes, instead of being flush with the top of the tank, they are set some inches below it, forming a water top intended to hold wster. Sometimes they are covered with earth, in which vagrant grass seeds take root, the roof presenting somewhat the appearance of tnrf. These are the esrth tops.

Every roof hss a manhole, generally upon the principle of an ordinary house scuttle. It affords access to the interior of the tank for clesnsing and other purposes. There is a supply pipe which runs np the side of the tsnk and enters at the top nesr the manhole. About an inch or so above the bottom, one or more drawing-off pipes are inserted. Access to the roof is secured by a wooden ladder or steps; these are generally permanent attachments. Across the roof, be it of wood or iron, a slatted or cleated wooden walk is provided, so that the roof may not be injnred hy being trodden npon. Sometimes, if tanks are near together, their roofs sre connected by wooden bridges or plank wsys, that easy access may be had to all. Sometimes the hase of the tanks is earthed up for three or four feet with sloping bsnks of grsvel.

Sometimes s trench two feet in depth is dug abont the base, with sn opening towsrds the downwards slope of the land. When the tank is completed, it is subjected to an hydraulic test; water to its full capacity is pumped in; and if the tank bears this strain without e ither bursting or lesking, it will of course withstand the pressnre of an equal qnantity of oil. Occasionally the water pressure proves too strong, particularly if the iron has not been of a good quality. The tank, now completed, receives its contents through the snpply pipe, the oil coming through, it msy be, miles of piping, either direct from the wells or from other tanks or from bsrges laden with the oil in bnlk. In this way the oil producing country is threaded with countless miles of piping, sometimes above ground, sometimes on or beneath its surface, and sometimes in the beds of rivers.

Some tanks are on the tops, others on the sides or in the hearts of mountains, others at their bsse. Sometimes they clnster together in particular localities by the dozen. Frequently we find knots of tsnks, only from five to ten feet apart, hence sll morslly certain of destruction by the fire that seizes upon any one of them. On the other hand, where wiser foresight has prevailed—as on the Anchor farm, Chestnut hill, opposite Parker—it is made obligatory upon tank owners to build at least 200 feet apart. There are now 12 tanks upon the summit of this hill. At Mount Nebo, just soath of Parker, there are ten tanks separated by distances vsrying from 100 to 150 feet; while st Montrose there are ten new tanks being built on the river bank, separsted from esch other by only 50 to 75 feet.

A Standard Employment Agency in San Francisco.

The agency to which we would now call the attention of the readers of the CALIFORNIA PATRON, wss established twenty years ago, and is the oldest establishment of the kind on the Pacific coast. From a small beginning in 1855, it has grown to snch dimensions that it has been compelled repeatedly to move into more commodions quarters, snd now it occnpies the large double store formerly occupied by M. Gray & Co., No. 625 Clay Street, next door west of the banking honse of the San Francisco Savings and Loan Society, one of the most central business locations in the city. MESSRS. CROSETT & CO. are daily supplying orders sent from all parts of the State, containing requests for every variety of labor, for the farm, the field, orchard, vineyard, tending stock, or cultivating the soil; for all kinds of lumber, milling and mining work, from superintendent down to simple laborer; for the shop, mechanics, engineers, artisans, and skilled workmen of every kind. Nor do their orders contain requests for male help alone. Great pains is taken to snpply our housewives with the very best Domestics, Cooks and General Honsemaids that csn be obtained. They wonld call the especial attention of GRANGERS AND FARMERS GENERALLY to their facilities for supplying farm help. Referring confidently to their past record for faithful attention to the wants of patrons, they have no hesitation in assuring all applicants who may favor them with their orders, that they can nowhere else be better or more promptly served than by applying to this old established agency. Mr. Crosett gives his constant personal attention to his business. His long experience makes him quick to see and accurate in judging of the merits of those who apply to him for situations. And his well established and wide extended reputation brings to his office an abundant supply of every kind of labor, from which he is enabled to select the best.

All this advantage Mr. Crosett gives to those who favor him with their orders, and that, too, without any expense to the employer—all the fees, (which, by reason of a large business being transacted, are moderate), being paid by the employee. The Employment Agency of Messrs. Crosett & Co. is supplying a great need in onr State and we take pleasnre in commending it to all readers of the PRESS.

GOOD PRINTING INK.—We prefer Chas. Enen Johnson's printing inks, having used them on this paper for the past four years. H. S. Crocker & Co., printers, stationers, blank book and paper dealers, are Johnson's S. F. agents.—DEWEY & Co., Publishers.

THE DAVIS VERTICAL FEED SHUTTLE, LOCK STITCH SEWING MACHINE.

The Lightest. The Simplest. The Cheapest. The Best.

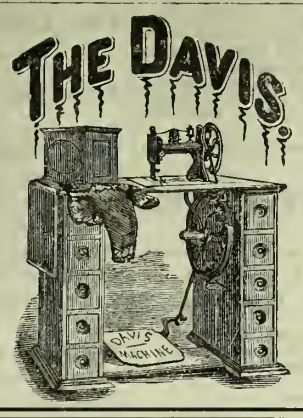
Is constructed on an entirely different principle from all others, and is not controlled by any combination. The feed used in the manufacture of all other Sewing Machines, and known to be the property of a combination, *is successfully displaced*, and a more simple, durable and powerful FEED, that contains but one-fourth the machinery required for the old feed, takes its place. A moment's glance at this novel combinatiou for a FEED, will convince the reader of its superiority, for the following reasons:

1st. The presser foot is always raised from the fabric when the feed takes place thereby presenting no resistance to seams or ridges while feeding.

2d. The needle being in the fabric, moving with the VERTICAL FEED-BAR—with its full pressure on the goods, renders the feed sure and strong, and the stitch uniform in length.

3d. The uedle being in the goods at the time the feed takes place, renders it impossible to full one piece while the other is stretched.

4th. The VERTICAL FEED-BAR being behind the needle renders it capable of sewing elastic goods, making a smooth and flexible seam, with stitch alike on both sides—thus enabling the sewing of any number of thicknesses without basting, and operating with equal facility n the heaviest as well as the lightest fabrics.



$1000 Challenge.

The Agents of the DAVIS FAMILY SEWING MACHINE will stake one thousand dollars that no person can with any under-feed Family Sewing Machine follow the DAVIS through its great range of work.

If any company, or company's agents feel inclined to accept this challenge, we ask them to come forth and show their colors. Some of them assert that the DAVIS is a "needle feed;" "will blind a person;" "will soon wear out;" all of which is false. We defy them to prove any of these assertions.

MARK SHELDON, Agent for Pacific Coast, 130 Post St.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable qnarterly.

CATTLE.

A. MAILLIARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, San Bruno, Cal., breedor of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $100.

P. STANTON, Sacramento, Cal., breeder of choice Jersey Cattle. Bulls, Cows and Calves for sale.

SHEEP AND GOATS.

GARNIER BROS., Encino Ranch, Los Angeles Cal., breeders of pure French, Spanish, and Saxon Merino Sheep. Price, from $25 to $50, each.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown; Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

T. A. WILSON, Grayson, Stanislaus county, Cal. Breeder and Importer of Spanish Merino Sheep.

LANDRUM & RODGERS, Watsonville, Cal., breeders of Pure Breed Angora Goats.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

M. FALLON, Cor. Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Fowls for Hatching from Pure Bred Fowls.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

SWINE.

ALFRED PARKER, Bellota, San Joaquin Co., Cal., Breeder of Improved Berkshire Swine.

RUPTURE CURED.

We would advise all those of our readers suffering of Rupture to carefully peruse the card of the MAGNETIC ELASTIC TRUSS COMPANY, in another column of this paper. As to the admirable effect of these Trusses, which have proven themselves the only efficient ones, we print the annexed testimonial, which speaks for itself.

SAN FRANCISCO, September 25th, 1876.

I would state that I have been ruptured for nearly three years, and have worn various kinds of Iron and Steel Trusses, without any benefit. I saw an advertisement of the MAGNETIC ELASTIC TRUSS CO.; called on them on the 28th day of July, six weeks ago, and now, on the 25th day of September, 1876, after wearing the MAGNETIC ELASTIC TRUSS only six weeks, I am astonished and delighted to find myself perfectly well. If any person should have told me two months ago that I could be cured, I would have laughed at them. D. ALEXANDER, 809 Jackson St., S. F.



LOOK!

ALBERT E. BURBANK, importer and breeder of Fancy Fowls, Pigeons, Rabbits, Dogs, etc. Also, Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,
43 and 44 California Market, S. F.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER,

521 Clay Street, S. F.

Blank Books Ruled, Printed, and Bound to Order

A Boy for the Country.

An intelligent lad, 13 years old, wants a permanent home in the country. Address J. B. PORTER, dentist, Oakland, Cal., or at this office.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

THE PACIFIC RURAL PRESS has a larger Circulation than any other Pacific Coast Weekly, independent of a daily issue.

Practical

BOOKS

—AT—

BANCROFT'S.

A. L. Bancroft & Co. keep on hand a large stock of American and European Books, Suitable for

CIVIL ENGINEERS,

FARMERS,

MACHINISTS,

And Industrial Classes generally, and supply them, post free, at published prices; for particulars of which see catalogues, which will be forwarded on application.

A. L. BANCROFT & CO.,
721 Market Street, S. F.

Grangers' Bank of California,

42 California Street,

SAN FRANCISCO.

Authorized Capital, $5,000,000.

OFFICERS:

PRESIDENT.....GILBERT W. COLBY.
MANAGING DIRECTOR.....C. J. CRESSEY.
CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

The Bank was opened on the first of Angust, 1874, for the transaction of general banking business.

CAUTION.

To Farmers and all others who put Barbs upon Wire Fences, Making a Barbed Wire Fence, and to all Manufacturers and Dealers in Fence Barbs and Barbed Fence Wire.

You are hereby notified, that in putting barbs npon wire, making a harbed wire fence, or in using or dealing in barbs or barbed fence wire, not made under license from us, you are infringing upon our patents, and we shall hold you strictly accountable for damages for all infringements of Letters Patent, Nos. 66,182, 67.117, 74,379, 84,062, 153,965, 157,124, 157,508, 164,181, 173,667; re-issues, Nos. 7,136, 6,976, 6,902, 7,035, 7,036, 6,913, 6,914, and other patents. Copies of our claims can be obtained of our attorneys, Coburn and Thacher, Chicago, Ill.

WASHBURN & MOEN MANUF'G CO.,
Worcester, Mass.

SMITH & WESSON'S

New Model. 38 Calibre. Central Fire. **With Automatic** Cartridge Ejector



NOW READY.

For **convenience, power** and **accuracy,** it is *unequalled.* If your merchant does not keep them, order direct from the Agency, *79 Chambers St.* New York, **M. W. Robinson,** Gen'l Agent.

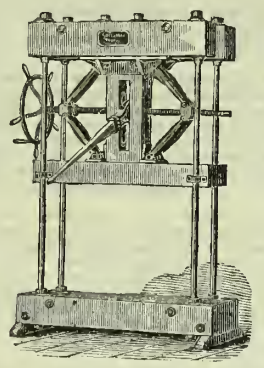
ASK YOUR GROCER OR OIL DEALER FOR "ELAINE" THE FAMILY SAFE GUARD OIL

50 **Visiting Cards,** with your name finely printed, sent for 25c. We have **100** styles. **Agents Wanted.** 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

Agricultural Articles.

BOOMER PRESS,

For WINE, CIDER, PAPER, LARD, TALLOW, TOBACCO,



Etc., Etc.

We Claim for the BOOMER & BOSCHERT WINE PRESS a Great Superiority over any other in the Market, for the Reasons:

FIRST—That while it is STRONG, and equal to the hydraulic in power, it is of SIMPLE construction.

SECOND—Its power is ACCUMULATIVE, increasing as the substance becomes more dense.

THIRD—It will PRODUCE MORE WINE with the least LABOR, and in the least TIME.

For particulars and prices, address

A. L. FISH & CO.,
9 & 11 FIRST STREET, San Francisco.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power

[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,
Cor. J and 10th Sts., Sacramento.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.

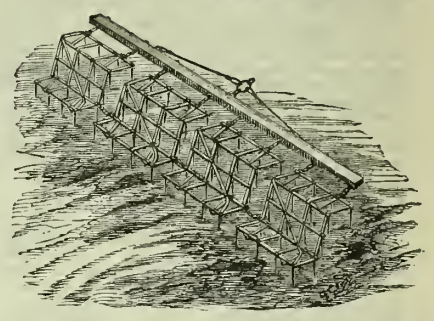


Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels thomselves govern the action of the Plow correctly. It has various points of superiority, and can be relied npon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.

IRON SECTIONAL HARROW.



This Harrow was Awarded the First Premium at the California State Fair in 1875.

The undersigned, having purchased the patent right of this Harrow for California, are now manufacturing them in Roseville, Placer County, and would call the attention of Farmers to the superior merits of this Harrow over all others now in use.

As its name indicates, it is made in sections of about three feet in width, each section having four bars, in which the teeth are inserted, and by connecting the sections with links, the Harrow is formed.

Should a Farmer require a Harrow upon his farm to do all kinds of work, he should purchase six sections, which would be suitable for four horses, and would cut 18 feet in width; by disconnecting two sections he will have a two or three-horse Harrow, cutting about 13 feet. One section alone is complete in itself, and suitable for garden work, with one horse. The Harrows are made of the best quality of iron, and with teeth warranted to be steel.

We give a few of the many reasons why we claim superiority for these Harrows over all others in use on this Coast:

First—By the lightness of draft, taking into consideration the amount of work it does.

Second—By working uneven or rolling ground just as well and as evenly as if it was entirely level.

Third—They are made of Iron and Steel, and therefore are not affected at all by sun or rain, or by heat and cold; they are always tight, and ready for use; they are also durable. A farmer purchasing one has a Harrow that will last a life time.

Fourth—The teeth being fastened with a nut and screw into the cross bars, should one break, another can be inserted in a moment. We are making three sizes, all being the same in width, but different in depth and weight only.

Prices, from $12.50 *to* $15.00 *per Section.*

All orders sent to

BREWSTER & CO.,
Roseville, Placer Co.,

Will be promptly attended to, and satisfaction guaranteed in all cases.

CAUTION.

It has come to our notice that certain parties are now making this Harrow in this State, and that several of them have been sent here from the East. Now this is to *caution* all persons against making, selling or buying them, so made and offered for sale, as we shall enforce our rights in relation to the matter, and would call the attention of all persons infringing upon our patent, to the *law* in regard to it.

BREWSTER & CO.,
Roseville, July 15th, 1876.

OAKLAND Spring Balance Gang Plow.



Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal Established in 1858. Send for Circular and Pricelist

TRADE MARK.

CALVERT'S CARBOLIC

SHEEP WASH,

$2 Per Gallon.

After dipping the Sheep, is useful for Preserving Wet Hides, Destroying the Vine Pest, and for Disinfecting Purposes, Etc.

T. W. JACKSON, S. F., Sole Agent for California and Novada.

ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco

Farmers, write for your paper.

Continued from Page 269.

noliy, $2.50; cider, B. F. Connoliy, $2.50; soda, B. F Connoliy, $2 50.

PAINTING, ORNAMENTAL WORK, ETC.—Best collection paintings, Mrs. Henry Gilbert, $5; painting in oil on canvas, W. Balza, $5; photographs, Miitz & Swart, $5; pencil drawing, Miss Annie Bowies, $2.50; crayon drawing, Mrs. Henry Gilbert, $2.50; sketching from nature, W. Balza, $3; hair work, Mrs. E. H. Veale, $2.50; feather work, Mrs. J. Gibbs, $2.50; best and largest variety wax work, Mrs. Jennie Fishburn, $5; wax flowers, Mrs. L. Haubrich, $2; wax fruit, Mrs. S. D. Towne, $2; leather work, Miss Marilio Camm, $2; shell work, Mrs. W. H. Pepper, $2; bead work, Mrs. A. Maede, 2; moss work, Mrs. Jennie Fishburn, $2; agricultural wreath, Mrs. L. Haubrich, $3.

EMBROIDERY, NEEDLEWORK, SEWING, ETC.—Best exhibit needlework, Mrs. S. Shaver, $10; worsted embroidery, Mrs. H. L. Weston, $3; worsted picture, Mrs. L. Long, $3; tufted worsted work. Mrs. W. A. Lewis, $2.50; silk embroidery, Mrs. L. Haubrich. $2; silk embroidery on cotton, Mrs. S. Gallagher, $2; cotton embroidery, Mrs. W. A. Lewis, $2; embroidery on lace, Mrs. S. Shaver, $2; chenille work, Mrs. D. S. Dickson, $2; transferred work, Mrs. McCurdy, $2; crochet work, Miss J. Holman, $2; tatting, Mrs. A. Maede, $1; netting, Mrs. E. H. Pickett, $2; hemstitching, Mrs. L. Haubrich, $2; Spanish lace, Mrs. L. Haubrich, $2; pair woolen stockings, Mrs. E. H. Pickett, $2; piece knitting, Mrs. C. S. Gibson, $2; rag mat, Mrs. M. A. Hall, $2; exhibit family sewing machine, Mrs. L. Haubrich, $5; baby's dress. Mrs. Schlosser, $2.50; boy's suit, Mrs. Rowland, $3; gent's suit, Mrs. T. F. Smith, $2; patchwork, Mrs. Schlosser, $2; quilting, Mrs. E. H. Pickett, $2; washing and ironing, Mrs. T. F. Smith, $3.

BREAD, CAKE, ETC.—Best wheat bread, Mrs. J. B. Thompson, $3; corn bread, Mrs. J. Button, $2.50; fruit cake, Mrs. G. W. Case. $3.50; pound cake, Mrs. M. G. Green, $3; sponge cake, Mrs. A. Higgins, $2.50; coffee cake, Mrs. L. Ellsworth, $2; assortment tarts, Mrs. T. F. Smith, $3.

PLANTS AND SHRUBBERY.—Best collection of trees, shrubs and flowering plants, E. S. Lippitt, $25; ornamental foliage plants, E. S. Lippitt, $10; fuchsias, E. S. Lippitt, $2 50; pelargoniums, E. S. Lippitt, $3.50; begonias, E. S. Lippitt, $2.50; hardy evergreen trees and shrubs for gardens, E. S. Lippitt, $5; cactus and cereus, E. S. Lippitt, $2; floral design, Mrs. C. A. Walker, $3; cut roses, W. A. T. Stratton, $2; cut dahlias, W. A. T. Stratton, $2; pair of vase bouquets, Mrs. C. A. Walker, $2; hanging basket, Morris Bros., $2; pair bouquets, dried flowers and grasses, Mrs. C. A. Walker, $2.

CHILDREN'S DEPARTMENT.—Best exhibit plain sewing, Hattie Wiswell, $3; needlework, Dollie Cowen, $5; worsted embroidery, Nellie Cassidy, $2.50; silk embroidery, Carrie Case, $2.50; crochet work, Hattie Wiswell, $2; braiding, Eva Dalton, $2; darning, Hattie May Pepper, $2; patchwork quilt, M. Haubrich, $2; pencil drawing, Hattie May Pepper, $2; wax work, Lulu Ellsworth, $3; bead work, Clara Mock, $2; wheat bread, Emeline Stanley, $2; sponge cake, Carrie Kelly, $2; pound cake, Carrie Kelly, $2; fruit cake, Ada Case, $2; mechanical skill and workmanship, Henry Ellsworth, $2.50.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

FOR WEEK ENDING OCTOBER 10TH, 1876.

GRATES FOR LIME KILNS.—William Gwynn, Sacramento, Cal.

SHOES.—Cheang Hne, S. F.

BOTTLE COVERING MACHINES.—Alois L. Becker and Frederick W. Volkman, S. F.

*AIR CHAMBERS FOR FORCING WATER FOR OPERATING ELEVATORS, ETC.—Philip Hinkle, S F.

WOOD PAVEMENTS.—Henry F. Williams, S. F.

RE-ISSUES.

*IMPROVEMENT IN UNDERGROUND TUBES FOR PROPULSION OF CARS, PATENTED JUNE 20TH, 1876.—Andrew S. Hallidie, S. F.

*COAL SCREENS AND SHUTES.—Martin R. Roberts, S. F.

———*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

IMPROVED.—Dewey & Co., publishers of the MINING AND SCIENTIFIC PRESS and the RURAL PRESS, now have the leaves of both these sixteen page sheets cut and stitched, which is an improvement that all readers of that otherwise inconvenient form of journal will appreciate very much. Every farmer would be a gainer were he to subscribe for the RURAL. It is decidedly a valuable paper, and the SCIENTIFIC PRESS is no less so to mining men.—Inyo Independent.

The Immigrant Bureau Re-Organized.

A Free Employment and General Information Office.

The Peoples' and Grangers' Immigrant Bureau, which accomplished so much good last year, has been re-organized under a new Board of Directors, and will continue its good work of attracting immigration and providing for the necessities of the new comers FREE OF CHARGE. Four thousand and eighty-two situations have been found for applicants since May, 1875 The Bureau expects to receive orders for all the help that may be required in the country the present season. Four hundred persons visit the office daily. Descriptions of land, maps, pamphlets, circulars, and local newspapers, should be sent to the Bureau. They will be freely distributed among inquirers. The Bureau was established by the State Grange, and being supported *entirely* by subscription NO CHARGE is made for any business transacted. The following gentlemen are on the Board of Directors for the ensuing year: Mayor A. J. Bryant, Chairman; I Friedlander, C. Adolphe Low, Mark L. McDonald, Amos Adams, J. Regensburger, C. D. Sullivan, Charles Lux George H. Eggers, J. C. Wilmerding, C. J. Cressy, John Morton, Col. A. Wason, Hon. F. A. Gibbs, F. B. Taylor, C. H. Dennison, Claus Speckles, Charles Kohler, A. W. Thompson, All communications should be addressed, J. EARL, MANAGER, IMMIGRANT BUREAU, Grangers' Building, 40 California street, San Francisco.

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MYERS' EXCELSIOR GANG PLOWS,

WITH CAST CAST STEEL BOTTOMS,

Furst & Bradley Iron Beam Cast Steel Sulky Plows, and Garden City Cast Steel Hand Plows, all sizes.

Made Expressly for LINFORTH, KELLOGG & CO., San Francisco, Cal.

This Celebrated Improved Gang has taken every premium, wherever it has come into a contest with other makes. Because

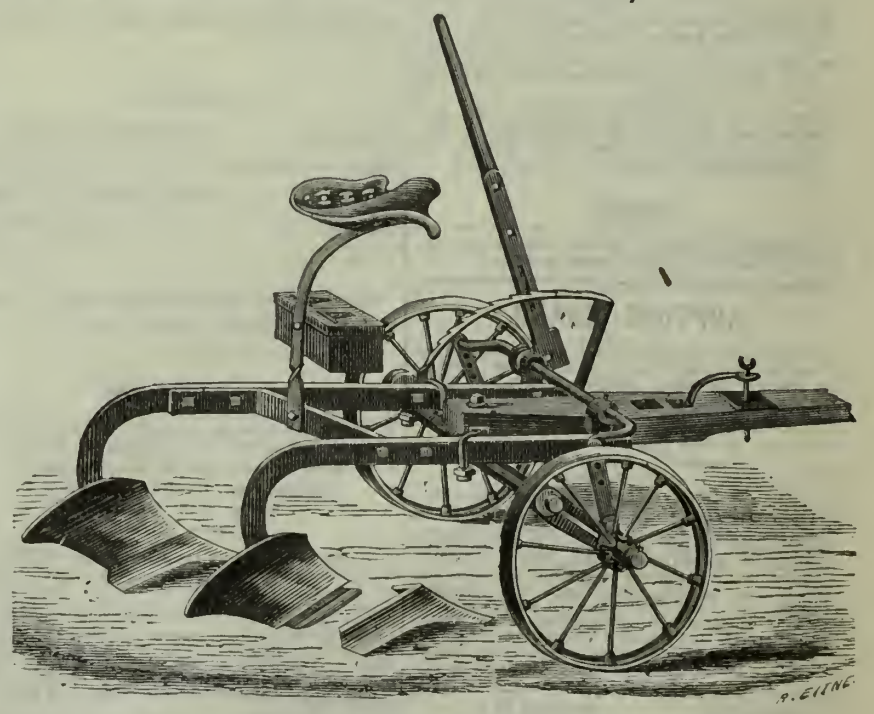
IT RUNS LIGHTER, TURNS THE FURROW BETTER, AND LIFTS EASIER OUT OF THE GROUND.

The mold boards are thicker than any used. The shares (Myers' patent), neatly fitted into a dovetail, require no bolts; can be taken off and replaced immediately, when dull, with sharp ones. They have been tested by farmers all over the State, and we have many testimonials like this: "The ten plows purchased from you are doing good work and they suit me. Respectfully yours, H. J. Glenn."

We have three sizes, 10, 12, and 14 inch. Price, $102.00.



GARDEN CITY CLIPPER PLOW.



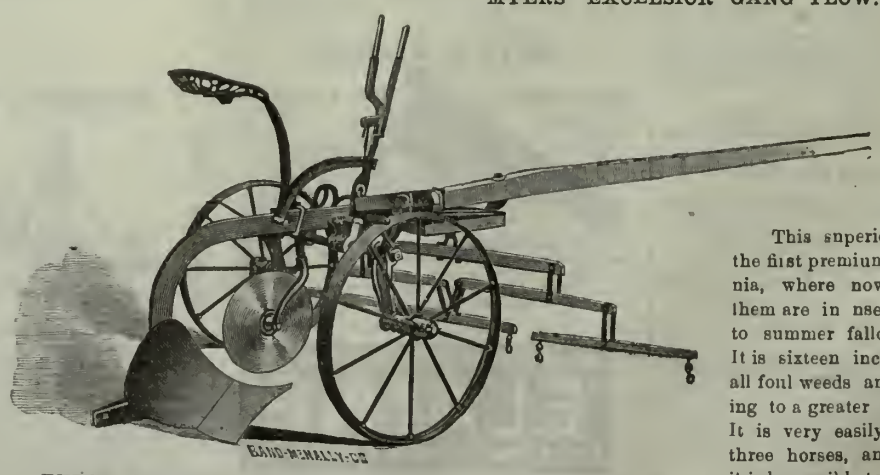
MYERS' EXCELSIOR GANG PLOW.

The established merit of the Garden City Plows is well known, they being the only small plow made out of cast steel. The manufacturers have visited all parts of this State and have constructed a plow peculiarly adapted to our wants.

No. 22½	cuts	10	inches. Price	$13.50.
No. 26½	"	11	" "	14.00.
No. 31	"	12	" "	15.00.
No. 40	"	14	" "	16.00.

We have also the Scotch Clipper for adobe, 12 and 14 inch, and Corn Plows to cut 7, 8, and 9 inches.

Sole Agents for Garden City Plows and Cultivators, Friedman Harrows, Fish Bros. & Co's Wagons, Wm. Anson Wood's Mowers, Russell Reaper, Genuine Chicago Pitts Thresher, Granger Seed Sowers, and Little Giant Fan Mills. A Full Assortment of Agricultural Tools.



FURST & BRADLEY SULKY PLOWS—Wood and Iron Beam.

This superior Sulky Plow has taken the first premium in Oregon and California, where now over one thousand of them are in use, being especially adapted to summer fallowing and potato land. It is sixteen inch cut, and turns under all foul weeds and coarse stubble, plowing to a greater depth than other plow. It is very easily handled, requiring but three horses, and with a rolling coulter it is impossible to choke.

Price, $75.00.

LINFORTH, KELLOGG & CO., - 3 & 5 FRONT ST., S. F.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

San Francisco, Wednesday, Oct. 17th, 1876.

Trade has been quite spirited during the week. In nearly all lines there is activity, and the streets have a stirring air. The dispatches, which bring to-day predictions of Russia's enlistment in the eastern war, have given our trade meetings animated discussions and general excitement. A most firm feeling characterizes the Grain market, but the end is yet to be seen.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	Cal. Average.			Club.		
Thursday	10s	1d@10s	4d	10s	5d@10s	8d
Friday	10s	1d@10s	4d	10s	4d@10s	7d
Saturday	10s	1d@10s	4d	10s	4d@10s	7d
Monday	10s	1d@10s	4d	10s	4d@10s	7d
Tuesday	10s	2d@10s	5d	10s	4d@10s	8d
Wednesday	10s	2d@10s	5d	10s	4d@10s	8d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.		Club.		
1874	9s 11d@10s	3 1	10s	4d@10s	9d
1875	11s —@11s	4d	11s	4d@11s	8d
1876	10s 2d@10s	5d	10s	4d@10s	8d

The Foreign Review.

The telegraphed review from the *Mark Lane Express* of October 16th, is as follows: Harvesting is still unfinished in the north, and unsecured crops are suffering both in grain and straw. There has been a slight improvement in the quantity of Grain marketed by farmers during the week, but the bulk offered is still in an unsatisfactory condition. Only dry samples have met with any attention, and these have been rather higher, presumably because of the demand for fine Grains for sowing purposes. Values do not appear to have been raised by the prospect of war. Our return of granary stocks of the 1st of October, compared with that of July 1st, shows that the quantity of Maize in granary is quadrupled; Wheat increased by rather a halt; Flour somewhat diminished. These stocks, though certainly they ought not, considering receipts and the prospective large diminution of imports and the deficient home growth, to depress trade, show only a moderate increase upon the corresponding period of last year. The large imports that were arriving were accumulating week by week, whereas at present they drifted rather out than into granary. All things considered, the condition of the trade is healthy. Although large stocks and the difficulty of warehousing grain exercised an influence adverse to holders, on the other hand no decline seems possible whilst shipments from abroad continue on the present moderate scale, and any political event of moment might cause an excitement, the countries concerned being important grain producers. The local trade remains about the same as last week, the increase being in the demand for Indian Wheat, which millers bought freely. The floating cargo trade ruled very firm, with only moderate arrivals of Coast. Rather more attention has been paid to floating cargoes. Ghirka Wheat has been held at full prices.

Freights and Charters.

The business of the past week, says the *Post*, has been on an increased scale, as will be seen by the list of engagements. The accumulation of engaged tonnage is rapidly moving off, the Wheat clearance to date assuming even larger proportions than during a corresponding period in September. Rates are well sustained at £2 17s 6d for wooden vessels to a direct port and £3 for iron. We have in port at the present writing, 73,912 tons of tonnage secured for Wheat, and 6,845 tons secured for miscellaneous purposes. The list of disengaged tonnage foots up 23,345 tons. The engagements of the week have been as follows: Br ships Newman Hall, 1,576 tons, Camperdown, 1,244, Trowbridge, 1,292, Juliet, 1,242, all Wheat to Cork for orders, prior to arrival, private; ship Nearchus, 1,287, Wheat to Liverpool, £2 18s; Havre, £3; ship St. Lucie, 1,318, Wheat to Liverpool, prior to arrival, £3 5s; Br ship Cilurnum, 1,885, Wheat to a direct port, U. K., owner's account; Br ship Seaforth, 1,190, Wheat to Liverpool at £3 2s 6d; Ger bk Lorenz Hansom, 400, Wheat to Liverpool, £3, Cork, U. K., £3 1s; ship Robert Dixon, 1,362, Wheat to Cork for orders, prior to arrival, private; Br ship Star of India, 1,045, Wheat to Liverpool, prior to arrival, £3 2s 6d, Cork, U. K., £3 5s; Br ship City of Glasgow, 1,168, Wheat to Liverpool, prior to arrival, £3 2s 6d; Br ship New York, 2,688, Wheat to Liverpool, owners' account.

New York Grain Market.

New York, Octobsr 15th.—In whatever way the Eastern question may be finally disposed of, Europe is short of our great agricultural staples, and sooner or later the export trade must revive. The grain trade was very dull during the first half of the week, with prices depressed; but during the last few days the tone of the market has been stronger, owing to an increasing export demand. New Spring Wheat has sold at $1.13@$1.28; but the bulk of business has been in new crop, Red and Amber Winter, largely for the Continent, at $1.18@$1 30, which is relatively cheaper than Spring. Corn closed firm at 57@59c for Mixed and Yellow. Flour steady at a slight reduction from prices of a week ago. Barley continues depressed, prices ranging from 80c to $1.16 for ordinary to prime. Receipts of Cereals continue so small as to leave no doubt that farmers and forwarders are holding back their Wheat with the view of forcing up prices; but whether the policy will or will not succeed remains to be seen. The consumption of Indian Corn at home and abroad has grown to immense proportions, and is steadily on the increase, that Cereal taking the place, to a considerable extent, of Wheat.

The Chicago Grain Market.

Chicago, October 15th.—The grain market during the past week has presented an animated appearance, but prices have been generally rather inclined to weakness, in harmony with the reported dullness in the Eastern markets, and because of heavy arrivals here and comparatively light shipments. The week closed with a strong upward movement, on war rumors from the Continent. Prices have been $1.05@$1.09 for cash, Wheat closing at about $1.08½. Corn has sold between 42@47c, chiefly at the higher price. Oats have held their own at about 32½c. Rye has weakened, selling at 69c. Barley has been cornered and excited, selling up to 90c. Pork and Lard have tumbled a little, and the future for provisions looks rather unpromising.

Eastern Wool Markets.

New York, October 15th.—The Wool market has exhibited considerable activity during the week, but still the volume of business has been contracted by a limited supply of finer descriptions and extreme views of holders. There is no disposition to force sales. In fact, dealers prefer to hold their supplies, fully believing that the present range of values is only temporary, and that still higher prices will rule shortly. There is no denying that the position of the market to-day is very favorable to holding intsrests. Stocks are light, not only at the seaboard but throughout the whole country, and with a continuance of the present liberal inquiry, a higher range may be looked for. Foreign descriptions are dull, but stocks are light and holders confident. Carpet stock is meeting with a little more inquiry, but the number of sales consummated is limited. Transactions for the week are: 101 bales Cape, for export to Canada, at about 15½c, gold, in bond; 6,000 lbs Mexican, 18c; 62 000 lbs fall California, 17@19c for slightly hurry, and 22@24½c for free; 57,000 lbs spring do, 20@26½c; 6,500 lbs Utah, 26@28c; 40,000 lbs Montana, 21½c; 109,000 lbs Texas, 13@23c for Western and 23½@27c for Eastern; 5,000 lbs burry Lake, 14½c; 191,000 lbs No. 2 and above Ohio fleece, 37½@45c; 5,000 lbs fine Western do, 40c; 15,000 lbs State do, 40c, and 37 bales Cape, 200 do washed Mediterranean, 5,000 lbs Mexican, 10,000 lbs Oregon, 25,000 lbs Colorado, 563 bags super pulled, 10 do black do, 8 do No. 1 do, 5,000 lbs unwashed X and XX Ohio, 2,000 lbs delaine do, 71,000 lbs fine unwashed Western, 15,000 lbs washed do, 25,000 lbs medium State, 7,000 lbs combing do, and 30,000 lbs West Virginia, on private terms,

Boston, October 15th.—The demand for Wool continues to exceed expectation, prices gradually stiffening up, particularly in fine and medium fleeces. There is apparently no excitement in the market, but, as manufacturers are purchasing with confidence, it is in a very strong position. Fleeces continue to attract considerable attention, and full prices have readily been obtained. Sales of the week have been 516,000 lbs, including Ohio and Pennsylvania at 39@40c. Desirable X fleeces are now firm at the latter price. XX and above sold at 43@45c. The stock of fine fleeces is smaller than for many years at this season. Sales of Michigan and other fleeces have been 190,000 lbs, principally at 35@40c. Good lines of Michigan are held at 38@40c. The principal sales have been in the range of 36½@39c. Unwashed fleeces continue to attract, and sales foot up 363,000 lbs at 23@35c. In combing and delaine there has not been much doing, sales of the week embracing only 91,500 lbs. Prices are steady and firm, ranging from 40 to 45c for fine delaine and desirable lots of combing. Pulled has been in fair request and market quite firm; transactions include 198,800 lbs at prices ranging from 32 to 40c for super; principally at 35@40c. The demand for California is good, but fall comes forward slowly. Sales include 73,000 lbs at 24@28c; 632,500 lbs fall, at 14@28c; but the latter was a fancy price, and obtained only for small lots of very choice. The principal transactions in fall have been within the range of 18@22c.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week Sept. 27	Week Oct. 4	Week Oct. 11.	Week Oct 17.
Flour, quarter sacks	55,198	43,410	84,677	34,972
Wheat, centals	387,481	485,903	404,408	424,611
Barley, centals	60,354	369,475	82,457	83,491
Beans, sacks	2,765	1,966	1,940	2,224
Corn, centals	2,071	2,911	4,253	1,742
Oats, centals	9,255	20,702	7,624	3,846
Potatoes, sacks	15,292	16,685	17,901	13,970
Onions, sacks	1,223	1,123	1,560	2,232
Wool, bales	6,610	8,186	8,337	6,619
Hops, bales	717	1,162	794	522
Hay, bales	2,093	2,017	1,881	1,733

Bags—The break up of the Bag combination has to-day no effect upon prices, which are nominal as quoted last week. There is little demand. The general opinion of the trade is toward lower prices.

Barley—Barley is unchanged in price. Brewing is in demand at about $1.10. Feed Barley is dull. We note sales: 3,000 sks Coast brewing for New York by sea, $1, gold; 700 do fair Coast Feed, 90c, silver; 1,000 sks choice Coast brewing, $1.05; 1,000 sks Coast Feed at 92½c; 925 do do, 95c, both silver; 1,500 do new brewing, $1 05 per ctl, gold; 500 sks good Coast, 95c; 1,000 fair do, 90c, silver; 1,000 sks Coast Feed at 90c, gold; 2,400 do, 93c; 200 do do, 95c, both silver; 10,000 ctls Coast Chevalier, $1.05, gold; 100 sks Bald at $1.75 per ctl, all silver; 550 sks at 75c, silver; 1,800 Feed at 92½c; and 600 good Coast at 92½c per ctl. The St. Louis *Republican* of October 9th says that several carloads of choice brewing Barley sold at $1 15, and 13 carloads of California Premium sold at $1.30 per bushel, currency.

Beans—Prices are unchanged.

Broom Corn—There are considerable receipts of good quality from Tulars county. We quote old at $40 @$50 per ton, and new $60@80 per ton.

Buckwheat—We note a sale of 100 sks at $2.80 per ctl.

Corn—Corn is in large supply and prices are below our former rates. We note sales: 600 sks large yellow, part of it in poor condition, at $1.13¾; 100 do do, $1.15, both silver; 500 do small round at $1.15, silver; 200 sks small Yellow at $1.15; 495 sks mixed at $1.11.5.

Dairy Produce—Fresh Butter is plentiful, and lower grades are dull and at a wide range in price. Cheese is unchanged.

Eggs—Eggs have advanced a point and are quotable at 45@47½c.

Feed—Rates for grouud Feeds are unchanged. Hay sells at former range of price. We note sales: 30 tons sold for $8 for the Clover and $10 for the Wheat and Barley; 450 bales in lots at from $10@$10.25; 38 tons ordinary at $8 per ton.

Fruit—Grapes are cheaper again. Pears are also received in larger quantities and low qualities are cheap.

Hops—Hops are selling at rates noted last week, viz: 25@28c. We note sales of 84 bales at 25¾@27½c. Many lots are held at higher figures. Emmet Wells reports the New York market for the week ending Oct. 6th as follows:

We have to report a very strong and active market, and an advance of three cents per pound on choice Hops. Some of the early shipments to Germany have been heard from, and we are happy to announce our Hops are liked there, though there is a good deal of complaint, as we supposed there would be, of the picking. Green, flaky, well picked and well cured Hops take the preference, and such only will find a ready market there. Our brewers look on with perfect indifference, taking no alarm whatever at the heavy export movement. When they get out of stock and want Hops, they say they will come into the market and pay the price, whatever it is; most of them stocked up largely last year at low prices and will not be compelled to replenish for some time to come. There is considerable inquiry for Wisconsins, but none have yet arrived here of the new crop. Californians are also in demand at full prices, 35@38c.

Oats—Oats maintain prices and are firm. We note sales: 420 sks Milling, $1.75; 350 sks fair Feed, $1.47½, half silver, per ctl.

Onions—Onions are lower, with a range of 60@65c per ctl.

Peas—There have been sales of 50 sks at $1,25.

Potatoes—The market is improved. The China steamer carried a considerable quantity of the poor and medium grades. The tone of the market is improved by the clearing out of the poorer lots. Half Moon Bays are now quotable at 75@90c, and Cuffey's Coves, $1.10 @$1.20.

Poultry and Game—Prices are much the same, excepting Turkeys, which are cheaper.

Provisions—Beef is abundant and lower; the weather has exorted a depressing effect upon the quality and the market. Mutton is unchanged. Pork is tending downward, because of large supply. The Provision trade is active.

Rye—A small consignment sold from the wharf at $1.55; lots in store are held at $1.60 per ctl.

Vegetables—Our tables of prices show a general improvement in prices for table Vegetables. Corn, Summer Squash, Peppers and Tomatoes are advanced. Marrowfat Squash is lower. Canteloupes have dropped to bottom rates, being valued at 60@75c per dozen.

Wheat—The exciting news from Europe is received to late too show its effect on the prices we quote this week. The Liverpool market, which lost a point on the closing days of last week, has regained it now. We note sales during the week as follows: 3,000 sks choice Shipping, $1.65; 600 do Superfine, $1.50. A large sale of choice Wheat is reported at $1 65, deliverable at Vallejo. 1 400 ctls choice Superfine, $1.30; 300 sks Milliug, $1.62½; 2,000 sks choice white Australian Milling, $1 67½; 1,000 ctls choice, to a shipper, $1.55; 900 do Milling, $1.65; 500 do inferior quality, $1.50; 2,000 sks ordinary, from warehouse, $1.45; 2,100 do extra choice San Diego, to a miller, $1.67½; 900 ctls Superfine, $1.40; 2,000 sks Shipping, $1 60; 2,000 do do, $1.62½; 1 000 do do, $1.65; 3,600 do choice Milling, $1.67½; 900 sks Shipping, $1.65 per ctl.

Wool—The local Wool market is maintained at former prices. We note 34,000 pounds Fall at 13@15c; 10,000 Northern at 18@20c; 210.000 pounds Fall at 15@18c.

DOMESTIC PRODUCE.

[WHOLESALE.]

Wednesday m., Oct. 18, 1876

BEANS.

Bayo, ₱ ctl — 2 15@2 25
Butter — 2 0 @2 25
Pea — 1 90@ —
Pink — 2 5@2 50
Sm'l white — 1 85@1 90
Lima — 1 90@2 00

BROOM CORN.

Common, ₱ lb — 2 @ 2½
Choice, do — 3 @ 4

COTTON.

Cotton, ₱ lb — 15 @ 18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb — 30 @ 45
Point Reyes — 47½@ 50
Pickle Roll — 32½@ 35
Firkin — 25 @ 30
W'st'n Reserve — 16 @ 25
New York — @ —

CHEESE.

Cheese, Cal., lb — 10 @ 15
do Old — @ —
Eastern — 12½@ 15

EGGS.

Cal. fresh ₱ doz — 45 @ 47½
Ducks' — 40 @ —
Oregon — 37½@ —
Eastern — 21 @ 30

FEED.

Bran, per ton — 17 00 @— —
Corn Meal — 27 50 @— —
Hay — 7 00 @13 50
Middlings — 24 00 @— —
Oil cake meal — — @33 50
Straw, ₱ bale — 55 @ 60

FLOUR.

Extra ₱ bbl — 4 75 @5 25
Superfine — 4 00 @4 50
Graham, ₱ bbl — 4 50 @4 75

FRESH MEAT.

Beef 1st quality lb — 5½@ 6
Second do — 4 @ 5½
Third do — 3 @ 4
Mutton — 3½@ 4
Pork, undressed — 6¼@ 6¾
do. dressed — 9 @ 9½
Veal — 5½@ 6
Milk Calves — 5½@ 7

GRAIN, ETC.

Barley, feed ctl — 80 @ 1 00
do brewing — 1 00 @ 1 10
Chevalier — 1 30 @ 1 40
Corn, White — 1 15 @ 1 20
do Yellow — 1 15 @ 1 20
Oats — 1 40 @ 1 65
Milling — 1 70 @ 1 75
Rye — 1 50 @ 1 55
Wheat shipping — 1 60 @1 67½
do milling — 1 65 @1 70

HIDES.

Hides, dry — 14 @ 15
do wet salted — 5½@ 7

HONEY, ETC.

Beeswax, per lb — 25 @ 27½
Honey in comb — 10 @ 13½
do Strained — 6 @ 8

HOPS.

New crop — 25 @ 28

NUTS, Jobbing.

Alm'ds ad sh'l lb — 8 @ —
do, soft sh'l — 14 @ 16
Brazil do — 14 @ 16
Cal. Walnuts — 12 @ 14
Chile Walnuts — 11 @ 12½
Pecanuts — 17 @ 18
Peanuts per lb — 8 @ 9
Filberts — 15 @ 16

ONIONS.

Union City ctl — — @ —
Stockton — 6 @ 65

POTATOES.

Petaluma, ₱ ctl — — @ —
Salt Lake — — @ —
Humboldt — — @ —
Half Moon bay — 75 @ 90
Cuffey Cove — 1 10@1 20
Early Rose new — 60 @ 75
Sweet — 75 @1 00

POULTRY & GAME.

Hens per dz — 7 00 @8 50
Roosters — 5 25 @6 50
Broilers — 2 50 @4 50
Ducks, tame, dz — 7 00 @9 00
do Muscovy — 8 00 @ —
do Canvass — — @8 00
Geese, per pair — 2 00 @2 50
Wild Gray dz — 3 00 @4 00
White — 1 50 @2 00
Turkeys, Live, lb — 16 @ 18
do Dressed — 18 @ 20
Quail, per doz — 1 50 @1 75
Snipe, Eng., doz — — @ —
Doves, per dozen — 50 @ 57
Rabbits — 1 00 @1 25
Hare, per doz — 2 00 @2 50
Venison lb — 7 @ 10

PROVISIONS.

Cal. Bacon, ₱ lb — 16 @ 17
do Medium — 15½@ 16
do Heavy — — @ 15
Lard — 14 @ 16½
Cal. Smoked Beef — 12½@ 13
Eastern do — — @ —
East'n Shoulds — — @ 12
Hams, Cal — 15 @ 15½
do Armour — — @ —
do Worster's — — @ 19
do Dupee's — 19 @ 19½
do Davis Bros' — @ 19

SEEDS.

Alfalfa, Chile lb — 8 @ 10
do California — 11 @ 12
Canary — 9 @ 10
Clover Red — — @ 22
do White — 50 @ 55
Cotton — 6 @ 10
Flaxseed — — @ 3½
Hemp — 12½@ —
Italian Rye Grass — 25 @ 30
Perennial do — 20 @ 30
Millet — 10 @ 12
Mustard, White — 5 @ 6
do, Brown — 3 @ 3½
Rape — 5 @ 8
Ky. Blue Grass — 30 @ —
do 2d quality — 29 @ —
Sweet V Grass — — @ 75
Orchard do — 30 @ 3
Red Top do — — @ 25
Hungarian do — 8 @ 12
Lawn do — 50 @ —
Mesquit do — 20 @ 25
Timothy — 1 — @ 13

TALLOW.

Crude, ₱ lb — 6¼ @ 6½
Refined — 8¾ @ 9

WOOL, ETC.

FALL—

Free — 12 @ 14
Choice — 14 @ 16
Northern — 17 @ 20
Burry — 10 @ 13
Oregon Eastern — 24 @ —
do Valley — 25 @ —

FRUITS AND VEGETABLES.

[WHOLESALE.]

Wednesday m. Oct. 18, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M — — @— —
Tahiti, do — 30 00@35 00
Cal. do — — @— —
Limes, Mexican, ₱ M — 10 00@12 50
Malaga Lemons, ₱ bx — — @— —
Cal. ₱ 100 — 2 00@ 2 50
do Sicily ₱ b'x — 14 00@ —
Bananas, ₱ bunch — 0 0@ 2 00
Cocoanuts, ₱ 100 — 6 00@ 7 00
Pineapples, ₱ doz — — @ —
Apples, ₱ box — 50 @1 50
Apricots, ₱ lb — — @ —
Blackberries, do — — @ —
Cherries ₱ lb — — @ —
Plums lb — 2 @ 3
Prunes lb — 2 @ 4
Figs — 4 @ 6
Gooseberries — — @ —
Huckleberries — — @ —
Strawberries ₱ cs. — 8 00 @10 00
Pomgranates — — @ —
Raspberries — — @ —
Currants, ₱ cs. — — @ —
Cranberries bbl. — 14 00 @15 00
Peaches, ₱ lb — 5 @ 9
Pears, ₱ bx — 50 @1 50
Crab apples, ₱ lb — 2 @ 3
Grapes ₱ box — 37½@ 50
Rose of Peru — 30@ 40
Muscat — 40@ 75
Black Hamburg — 30@ 60
Tokay — 50@ 75
Quinces — 1 00@ 1 25
Apples, ₱ lb — 5 @ 6½
Pears, ₱ lb — 7 @ 10

DRIED FRUIT.

Peaches, ₱ lb — 6 @ 7½
Apricots, ₱ lb — 10 @12½
Plums lb — 3 @ 4
Pitted do ₱ lb — 12 @13
Raisins, imported — 3 25 @3 75
Cal. Raisins box — 1 50 @2 75
Black Figs, ₱ lb — 5 @7
White, do — 12½@15
Prunes — 12½@17
Citron — 28 @ 30
Zante Currants — 9 @ 10

VEGETABLES.

Asparagus ₱ lb — 10 @—
Beets ₱ ctl — — 60 @—
Cabbage, ₱ 100 lbs — 50 @ 60
Carrots, ₱ 100 lbs — 50 @ 62½
Cauliflower, doz — 50 @—
Celery, doz — 50 @—
Garlic, ₱ lb — 2½ @ 3
Green Peas ₱ lb — 4 @ 4½
Green Corn ₱ doz — 15 @18
Sum'r Squash ₱ box — 75 @85
Marrow fat Squash, tn — 8 00@9 00
Artichokes, ₱ doz — — @—
String Beans, ₱ lb — 2 @—
Lima Beans — 2¾ @—
Parsnips — — @—
Shell Beans — 1½ @ 2
Peppers, green, bx — 60 @75
Okra — 4 @ 5
Cucumbers, ₱ box — 50@ 65
Tomatoes, box — 50@ 75
Egg Plant, box — 1 25@—
Rhubarb box — —@—
Lettuce, doz — 10@ —
Turnips, pr ctl — 50@ 62½
Watermelons doz — 75@1 25
Canteloupes do — 60@ 75

GENERAL MERCHANDISE.

WHOLESALE.]

Wednesday m., Oct. 18, 1876.

BAGS.

Eng. Stand Wht — 11½@12
Neville & Co's — —
Hand Sewed — 11½@12
24x36 — —@—
24x40 — —@—
Machine do 24x40 — —@15½
" " 22x40 — 14½@—
" " 22x40 — 13 @—
" " 22x35 — 11½@12
Flour Sacks ½s — 9 @11
" " ¼s — 6 @ 7
" " ⅛s — 4½@ 5
Hessian 60-in — 12¼@14½
do 45-in — 10 @—
do 40-in — 8½@—
Wool Sacks, 3½ lbs — 45 @50
do 4 " — 50 @52½
Stand. Gunnies — 11½@12
single seam no — —@—
Bean Bags — 7 @ 8

CANNED GOODS.

Ass't'd Pie Fruits in 2½ lb cans — 2 75 @ 3 00
do Table do — 3 75 @ 4 25
Jams & Jellies — 4 25 @ —
Pickles ½ gl — — @ 3 50
Sardines, qr box — 55 @ 1 90
do ½ boxes — 3 00 @— —

COAL—Jobbing.

Anstralian, ₱ ton — 8 75 @ 9 00
Coos Bay — — @ 9 00
Bellingham Bay — — @ 9 00
Seattle — — @ 9 00
Cumberl'd — 14 00 @15 00
Mt. Diablo — 5 75 @7 75
Lehigh — — @22 00
Liverpool — 8 50 @10 00
West Hartley — — @14 00
Scotch — 9 00 @10 00
Scranton — 13 00 @16 00
Vancouver's Isl. — 10 50 @ 2 00
Charcoal, ₱ sk — 75 @ —
Coke, ₱ bbl — — @ 50

COFFEE.

Sandwich Island — @ 21½
Costa Rica per lb — 21½@ —
Guatemala — 20½ @ 21
Java — — @ 24
Manilla — — @ 19
Ground in cs — 25 @ —
Unicorn — 27 @ —

FISH.

Sac. Dry Cod, new — 5½@ 5½
cases — 6 @ 7½
do boneless — 8½@ 10
Eastern Cod — 8 @ 9½
Salmon in bbls — 6 50 @7 25
do ½ bbls — 3 75 @4 00
do 2lb cans — 2 40 @ —
do 1lb cans — 1 40 @ —
do Col. R. ½lb — 4 25 @4 50
Pick. Cod, bbls — 22 00 @ —
do ½ bbls — 11 00 @ —
Mack'l, No. 1, ½bls — 11 00 @ —
Extra — — @12 00
in kits — 1 90 @2 25
Ex mess — 3 50 @4 00
Ex mess, ½bs — @12 00
Pick'd Herr'g, bx — 3 00 @ 3 50
do . Sm'k'd Her'g — 40 @ 50

LIME, ETC.

Lime, Sta Cruz, ₱ bbl — 2 00@ 2 25
Cement, Rosendale, do — 2 75@ 3 50
do Portland do — 4 75@ 5 50
Plaster, Golden Gate Mills — 3 00@ 3 25
Land Plaster, ₱ ton — 10 00@12 50

MISCELLANEOUS.

Fuse — @ 7½

NAILS.

Assorted size, keg — 3 75 @4 00

OILS.

Pacific Glue Co — — —
Neat F't No. 1 — 1 00 @ 90
Pure — — @ —
Castor Oil, No 1 — — @ 95
Baker's A A — — @1 15
Cocoanut — — @ 60
Olive Plagniol — 5 50 @5 75
do Possel — 4 75 @5 00
Palm lb — 9 @ —
Linseed, raw — — @ 62½
do boiled — — @ 65½
China nut in cs — 65 @ —
Sperm, crude — 1 60 @1 65
do bleached — 1 90 @2 25
Coast Whales — 47½@ 50
Polar, refined — — @ 50
Lard — — @1 20
Oleophine — — @ 37
Devoe's Brill't — 38 @ 39
Long Island — — @ 25
Eureka — 26 @ 27
Devoe's Petro'm — — @ 42½
Barrel kerosene — 23 @ 25
Olive — — @3 50
Downer Kerose'e — — @ 37½
Elaine — — @ 42
Gas Light Oil — 23 @ 25

PAINTS.

Pure White Lead — 9¾ @10¼
Whiting — — @ 1¾
Putty — 4 @ 5
Chalk — — @ 1½
Paris White — — @ 2½
Ochre — — @ 3½
Venetian Red — — @ 3½
Red Lead — 10 @ 11
Litharge — 10 @ 11
Eng. Vermillion — — @1 25
Averill Chemical Paint, per gal. White & tints — 2 00 @2 40
Green, Blue & Ch Yellow — 3 00 @3 50
Light Red — 3 00 @3 50
Metallic Roof — 1 30 @1 60

RICE.

China No. 1 — — @ 6
Hawaiian, ₱ lb — 7 @ —
Carolina, ₱ lb — 10 @ —

SALT.

Cal. Bay, per ton — 10 00@14 00
do Common — 5 00@ 7 00
Carmen Island — 12 00@15 00
Liverpool fine — 13 50@16 50

SOAP.

Castile ₱ lb — 10 @ 10½
Common brands — 4½@ 5
Fancy do — 7 @ 8

CANDLES.

Grant's — 16 @ 16½
Mitchell's — 18 @ 20

SPICES.

Cloves ₱ lb — 45 @ 47½
Cassia — 23½@ 25¾
Citron — 28 @ 30
Nutmeg — 95 @ 97½
Whole Pepper — 13½@ 14½
Pimento — 15 @ 17½
Ground Allspice — — @1 12
do Cassia do — — @1 50
do Cloves do — — @1 50
do Mustard do — — @1 20
do Ginger do — — @1 00
do Pepper do — — @1 00
do Mace do — — @2 00
Bowen's Pure Ground ₱ lb — — @ 50

SUGAR, ETC.

Jal. Cube per lb — — @ 12¾
Circle A crushed — — @ 12
Powdered — — @ 12¼
Fine crushed — — @ 12¼
Granulated — — @ 11¾
Golden C — — @ 10¾
Hawaiian — 10 @ —
Cal. Syrup in kgs — — @ 67½
Hawaiian Molasses — 25 @ 27½

TEA.

Oolong, Canton, lb — 19 @ 25
do Amoy — 28 @ 50
do Formosa — 40 @ 80
Imperial, Canton — 25 @ 40
do Pingsuey — 45 @ 80
do Moynne — 60 @1 00
Gunpo'der, Cant. — 75 @1 00
do Pingsuey — 50 @ 90
do Moynne — 65 @1 25
Y'ng Hy., Canton — 28 @ 40
do Pingsuey — 40 @ 70
do Moynne — 65 @ 85
Japan, ½ chests, bulk — 30 @ 75
Japan, lacquered bxs, 4½ and 5 lbs — 45 @ 67
Japan do, 3 lb bxs — 45 @ 90
do pl'n bx, 4½ lb — 35 @ 65
do ½&1 lb paper — 30 @ 55

TURPENTINE.

Eastern — 51½@55

LEATHER.

[WHOLESALE.]

Wednesday m., Oct. 18, 1876

Sole Leather, heavy ₱ lb — 25@29
do do light ₱ lb — 20@25
Jodot, 8 Kil., per doz — 48 00@ 50 00
Jodot, 11 to 13 Kil., per doz — 68 00@ 79 00
Jodot 14 to 19 Kil., per doz — 82 00@ 94 00
Jodot, second choice, 11 to 16 Kil. ₱ doz — 57 00@ 74 00
Cornellian, 12 to 16 Ko — 57 00@ 67 00
Cornellian Females, 12 to 13 — 63 00@ 67 00
Cornellian Females, 14 to 16 Kil — 71 00@ 76 50
Simon Ullmo Females, 12 to 13, Kil — 58 00@ 62 00
Simon Ullmo Females, 14 to 15, Kil — 66 00@ 70 00
Simon Ullmo Females, 16 to 17, Kil — 74 00@ 74 00
Simon, 18 Kil. ₱ doz — 51 00@ 63 00
Simon, 20 Kil. ₱ doz — 68 00@ 67 00
Simon, 24 Kil. ₱ doz — 72 00@ 74 00
Robert Calf, 7 and 9 Kil — 35 00@ 40 00
French Kips, ₱ lb — 1 00@ 1 15
California Kip, ₱ doz — 40 00@ 48 00
French Sheep, all colors, ₱ doz — 8 00@ 15 00
Eastern Calf for Backs, ₱ lb — 1 00@ 1 25
Sheep Roans for Topping, all colors, ₱ doz — 9 00@ 13 00
Sheep Roans for Linings, ₱ doz — 5 50@ 10 50
California Russett Sheep Linings — 1 75@ 4 50
Best Jodot Calf Boot Legs, ₱ pair — 5 00@ 8 25
Good French Calf Boot Legs, ₱ pair — 4 00@ 4 75
French Calf Boot Legs, ₱ pair — 4 00@ —
Harness Leather, ₱ lb — 24 @ 28
Fair Bridle Leather ₱ doz — 48 00@ 72 —
Skirting Leather, ₱ lb — 32 @ 35
Welt Leather, ₱ doz — 30 00@ 36 00
Buff Leather, ₱ foot — 30 @ 4
Wax Side Leather, ₱ foot — 15@

LUMBER.

CARGO PRICES OF REDWOOD.

Rough, ₱ M — $18 0
Rough refuse, ₱ M — 14 0
Rough clear, ₱ M — 20 0
Rough clear refuse, M — 20 0
Rustic, ₱ M — 22 50
Surfaced, ₱ M — 30 0
Surfaced refuse, ₱ M — 20 0
Flooring, ₱ M — 28 0
Flooring refuse, ₱ M — 18 0
Beaded floorings, ₱ M — 30 0
Beaded floor, refuse, M — 20 0
Half-inch Siding, M — 20 0
Half-inch siding, ref, M — 16 0
Half-inch, Surfaced, M — 25 0
Half-inch Surf. ref., M — 20 0
Half-inch Battens, M — 0 0
Pickets, rough, ₱ M — 1 0
Pickets, rough, p'nted — 12 0
Pickets, fancy, p'nted — 6 0
Scantling — 15 0

PUGET SOUND PINE Retail Price.

Rough, ₱ M — 22 50
Planing, ₱ M — 22 50
Flooring and Step, ₱ M — 32 50
Flooring, narrow, ₱ M — 35 00
Flooring, 2d quality, M — 25
Rustic, ₱ M — 32 50
Planing, ₱ M — 3 50
Furring ₱ lineal ft — —3½

REDWOOD—Retail.

Rough, ₱ M — 22 50
Rough refuse, ₱ M — 18 00
Tough Pickets, ₱ M — 18 00
Rough Pickets, 6'd, M — 20
Fancy Pickets, ₱ M — 30 0
Siding, ₱ M — 25 00
Surfaced and Long Beaded — 37 50
Flooring — 45 00
do do refuse, ₱ M — 25 00
Half-inch surfaced, M — 32 50
Rustic, No. 1, ₱ M — 40 00
Battens, lineal foot — —3½
Scantling — 30

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by Sutro & Co.]

San Francisco, Oct. 18, 3 p. m.

Legal Tenders in S. F., 11 a. m., 90 to 90½. Silver 5¾@6¼.

Gold in N. Y., 111¼.

Gold Bars, 880 to 890. Silver Bars, 12@20 per cent. discount.

Exchange on N.Y., 50@55-100 per cent. premium for gold; on London bankers, 49; Commercial, 49¼; Paris, five francs per dollar; Mexican dollars, 7 per cent. discount.

London — Consols, 96½; Bonds, 102¼

Quicksilver in S. F., by the flask, per ₱, 45c

Seedsmen.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in



FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Pricee Unueually Low.

☞Trade Price List on application.

***My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

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Seeds. Seeds.

IMPORTED.

Croeby'e Extra Early
Marblehead Mammoth
Stowell'e Evergreen
Mexican Sweet, New } Sweet Corn.

Early Canada
Early Dutton } Yellow Flint Corn.

Long Red Mangel Wurzel
Yellow Globe
White Sugar } Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,

No. 317 Waehington Street,

v8-tf SAN FRANCISCO.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and rellable, such as experience and care only can select.

GRASS AND OLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE OLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBAOOO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-1y

Nurserymen.

200,000

Australian Gum Trees For Sale,

—AT—

STRATTON'S GUM TREE FOREST NURSERY,

HAYWARDS, ALAMEDA CO., CAL.

These trees are from five to twelve inches high, transplanted regnlarly into hoxes 30x20 inches square, weighing 150 pounds. 150 or 500 ln each box, in splendld condition for transplanting to their permanent location. Price, $6 to $12 per 1,000. Will contract to plant the trees, or furnish superintendence, on low terms. Cash must accompany orders for less than $50, or if greater than that amount, city reference must be given. Address,

JAS. T. STRATTON,

East Oakland, Alameda County, Cal.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Treee. Also Orange, Lemon, Lime and Palm Treee, Pot Plants, and Hardy Evergreen Shrubbery.

WHOever desires profitable employment **WILL** find that there is nothing by which they **CAN** as easily earn a livelihood and **MAKE** themselves useful, (for certainly **MONEY** is not the only object of life,) as by canvassing for "Lights and Shades in San Francisco." A Good Agent is wanted for every town on the Coast. Address immediately,

Pub. "Lights and Shades in S. F."

P. O. Box 1211, S. F.

GRANGERS' BUSINESS ASSOCIATION,

Incorporated Feb. 10th, 1875. Capital Stock, $1,000,000.

OFFICERS and DIRECTORS:

DANIEL INMAN, (PRESIDENT). AMOS ADAMS, (SECRETARY). THOS. FLINT.
R. C HAILE, (VICE PRESIDENT). THOS. UPTON. G. P. KELLOGG.
JOHN LEWELLING, (TREASURER). I. C. STEELE. W. L. OVERHISER.
O. HUBBELL. D. CAMPBELL.

SHIPPING and COMMISSION HOUSE,

Grangers' Building, - - - - 106 Davis Street, S. F.

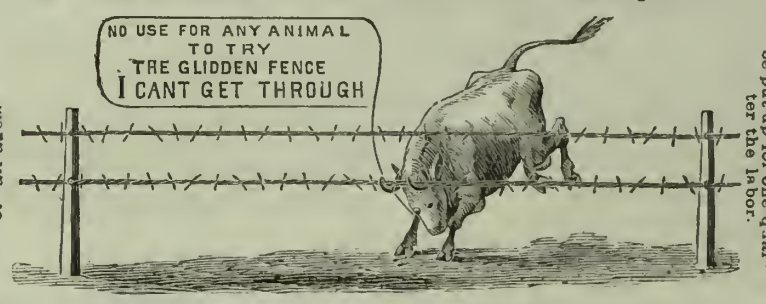
Cousignments of Grain, Wool, Dairy Products, Fruit, Vegetables, and other Produce solicited, and advances made on the same. Orders for Grain and Wool Sacks, Produce, Merchandise, Farm Implements, Wagons, Etc., solicited and promptly attended to.

We do a strictly Commission Business, and place our rates of Commission upon a fair legitimate basis that will enable the country at large to transact business through us to their entire satisfaction.

Consignments to be marked Grangers' Business Association, San Francisco. Stencils for marking will be furnished free on application.

DANIEL INMAN, Manager.

After Nearly Three Years' Test, the STEEL BARBED FENCE WIRE, Patented by J. F. GLIDDEN, Stands Head and Shoulders Above all Competitors, and is More in Demand than all Other Barb Fences Put Together.



OVER 900,000 POUNDS SOLD IN CALIFORNIA THE FIRST SEASON OF ITS INTRODUCTION. THE GLIDDEN PATENT BARB WIRE HAS BEEN TESTED BY THOUSANDS OF PRACTICAL FARMERS, WHO UNIVERSALLY RECOMMEND IT, AND IS SUPERIOR TO ALL OTHERS FOR THE FOLLOWING REASONS:

1. The wire is manufactured entirely from steel, which has a relative strength of 50 per cent. greater than of any common iron wire. 2. The only steel wire barb. 3 The only barb that cannot be displaced with thumb and finger or cattle's horns. 4. The only barb with prongs projecting from between the twisted wire and cannot be bent, broken or rubbed off, and never needs replacing. 5. The only coiled barb with broad base on main wire, which renders it immovable. 6. The only barb wire during process of manufacture its strength is tested equal to that of two-horse power. 7. The only barb put on with machinery. It is not pounded on with hammer and indented in main wire to hold it in place. 8. The only barb wire you can lay 80 rods or more on ground and drag with team and not injure or displace the barbs. 9. The only barb wire that gives universal satisfaction and has greater sale than all others put together.

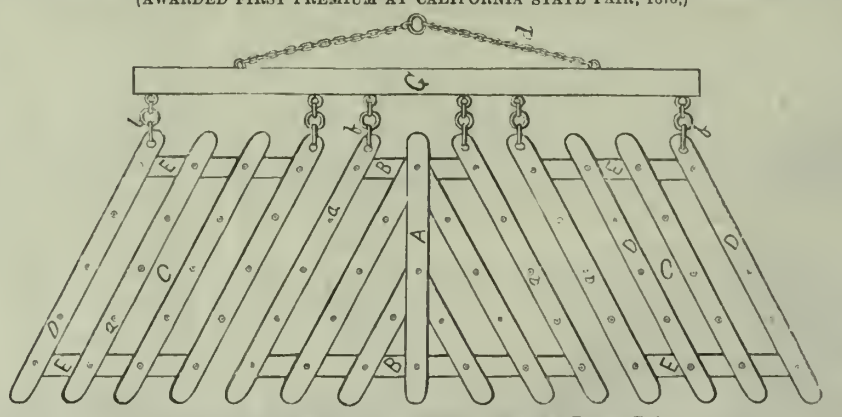
JONES. GIVENS & CO.,

Pacific Coast General Agents, Sacramento, Cal.

Manufactured by WASHBURN & MOEN MANUF'G CO.

PERKINSON'S FLEXIBLE HARROW,

(AWARDED FIRST PREMIUM AT CALIFORNIA STATE FAIR, 1876,)



Invented by J. E. PERKINSON, of Santa Rosa, Cal.

Merits are claimed for this Harrow over all others in use. It gives good satisfaction in its work, and should be thoroughly tested by farmers. It has the build of durability. It can be made for $35 on this Coast.

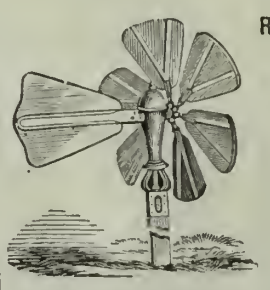
This Harrow is made in three sections, which are connected to a draft bar by links and clevises. The bars are about four feet six inches long, and there are four bars in each of the two outside sections. The center section is filled up as seen in the engraving. The Harrow is made of good Eastern oak, with 63 steel teeth, and covers about 13 feet width of swath.

Reasons for the Superiority of this Harrow.

First—By the lightness of the draft, two horses, of ten hundred each, can draw it on loamy soil with ease.
Second—It is the best attachment in use. The draft bar is perfect. By using an equalizing chain to draw by, it keeps the Harrow in its right position and makes it easy to turn at a corner, as no wide spread Harrow can be turned with ease without those equalizers.
Third—Where other patentees have failed in setting the teeth so that each and every tooth will make a separate and distinct mark, this Harrow will do it on trial.

The Harrow is manufactured by the inventor, J. E. PERKINSON, at Santa Rosa, Cal., to whom applications for rights can be made.

AUTOMATIC PUMP.



Raises water by compressed air to any hight or distance. Windmill can be set at any distance from the well or spring if required to get a good exposure to the wind.

SEND FOR CIRCULAR.

J. E. HOLLOWAY, Gen. Agent for Pacific States,

31 Beale Street, San Francisco,

WHERE THE PUMP CAN BE SEEN IN OPERATION.

INTERNATIONAL HOTEL

ALL NEWLY FURNISHED,

824 & 826 Kearny St., - San Francisco, Cal.

$1.50 & $2 per day. Free Coach to the House.

H. C. PATRIDGE, - - - Proprietor

DAVIS & SUTTON,

75 Warren St., New York,

Commission Merchants in California Produce.

REFERENCE.—Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A. Lusk & Co., San Francisco, Cal.

Awarded the Highest Medal at Vienna.

E. & H. T. ANTHONY & CO.,

591 Broadway, New York,

(Opp. Metropolitan Hotel,)

Manufacturers, Importers & Dealers in

ENGRAVINGS CHROMOS and FRAMES,

STEREOSCOPES & VIEWS,

ALBUMS, GRAPHOSCOPES, PHOTOGRAPHS,

And kindred goods—Celebrities, Actresses, etc.

Photographic Materials.

We are Headquarters for everything in the way of

STEREOPTICONS and MAGIC LANTERNS,

Being manufacturers of the Micro-Scientific Lantern, Stereo-Panopticon, University Stereopticon, Advertiser's Stereopticon, Artopticon, School Lantern, Family Lantern, People's Lantern, each style being the best of its class in the market. Beautiful Photographic Transparencies of Statuary and Engravings for the window.

Catalogues of Lanterns and Slides, with directions for using, sent on application. Any enterprising man can make money with a Magic Lantern. ☞A full stock of views of the Exposition Buildings and their contents.

☞Cut out this advertisement for reference.

HEALD'S BUSINESS COLLEGE,

No. 24 Post Street,

SAN FRANCISCO, CAL.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

LADIES' DEPARTMENT.—Ladies will be admitted for instruction in all the Departments of the College.

TELEGRAPHIC DEPARTMENT.—In this Department young men and young ladies are practically and thoroughly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars, E. P. HEALD, President Business College, San Francisco, Cal.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

Stockton, Cal.

ANGORA

ROBE and GLOVE COMPANY

San Jose, California,

Capital Stock, $50,000.

O. P. BAILEY, President, J. LEWIS, Secretary,
J. W. HINDS, Treasurer.

DIRECTORS:—C. P. Bailey, J. W. Hinds, Jackson Lewis, O. H. Lapham, Return Roberts.

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FURS FOR ROBES,

Mats, Robes, Gloves, Etc.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

H. K. CUMMINGS. 1858. H. H. HALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer

Rupture.

"Metal Trusses being rigid and unyielding, are often displaced from their position by the motions of the body, in consequence of which they ENLARGE rupture instead of healing it. Their pressure is often wrought upon parts of the body which are healthy, thereby causing lumbago and other diseases of a dangerous nature." Call on the MAGNETIC ELASTIC TRUSS CO., 609 Sacramento Street, S. F.

Lands and Homes for Sale.

IMPROVED FARMS FOR SALE

In CAPAY VALLEY, YOLO CO.,

WITHIN ONE MILE OF THE TOWN OF CAPAY, THE PROPOSED TERMINUS OF THE VACA VALLEY RAILROAD, 16 MILES WEST OF WOODLAND.

One Farm, containing 280 acres of choice valley and hill land, good house, barn, granary, etc., and well fenced. Price, $7,000.

One farm adjoining of 100 acres; good house, barn and outbuildings, young orchard—well watered; Cache creek, a never failing clear mountain stream, running through both farms. Price, $3,000.

Also, **Town Lots in Capay**, soon to be the center of trade and railroad depot for the western and northwestern portion of the county, and also for the quicksilver mines of Lake and Napa counties. Price, $50 to $150 per lot.

TERMS:

One-Half Cash. Balance Secured by Mortgage.

J. W. ALDRICH, Capay, Yolo Co.

FOR SALE,

In Lots to Suit,

5,000 Acres of the Lake Vineyard Land and Water Association.

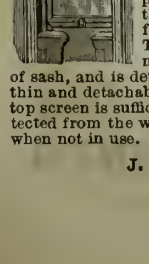
These lands are in the great fruit belt of Los Angeles County,—only six miles from the city are peculiarly adapted to semi-tropical fruits, and adjoin the famous Lake Vineyard of Hon. B. D. Wilson. The Southern Pacific railroad runs through the land; convenient to schoolhouse and church; water in abundance, and the water-right is sold with the land. Title perfect. A Map of the tract may be seen at the office of Mayor Beaudry, on Spring street, opposite City Council rooms. References may be made to Hon. B. D. WILSON or J. DE BARTH SHORB, at Lake Vineyard, who will take pleasure in showing the lands. Also, to Mayor BEAUDRY or D. FREEMAN, Los Angeles city.

A RARE CHANCE.

FOR SALE—My Poultry Business, with my Farm of 115 acres; 22 acres of Vineyard and Orchard; House of 10 rooms; Barns; Granaries; 30 Chicken houses.

Receipts between $3,000 and $4,000 a Year,

Fully proved to the purchaser. Farm Implements, Wagon, Horses, Cows, etc., with Poultry (value over $3,000) included. **Price, $12,000**, one-half cash. Or I will sell a Half Interest and continue the business in partnership—the purchaser to reside on the place. Address,



M. EYRE, Napa, Cal.

In view of above I offer a few fine Fowls, Bronze Turkeys, etc. (not included in breeding pens and stock sold with farm), at reduced prices.

The Famous "Enterprise"

(PERKINS' PATENT)

Self-Regulating, Farm Pumping, Railroad and Power

WINDMILLS,



Pumps & Fixtures,

Have been in use on the Pacific Coast in the towns and farming districts for over four years, and wherever they have been sold (and there are thousands of them out) they are doing their work as well as when put up. A careful perusal of our Circulars gives a fair representation of them and shows their simplicity.

We are prepared to fill orders for all sizes, from a PUMPING MILL to a 24-foot POWER MILL for running Machinery, as well as doing the pumping.

The "ENTERPRISE" FEED MILL

(PACKERS' PATENT),

For Grinding Barley, Etc.,



Equally as commendable, has now been tested to entire satisfaction of all, and meets the demand for an article of that kind that has not been supplied on the Pacific Coast heretofore.

CHEAP and RELIABLE.

All Goods Warranted.

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HORTON & KENNEDY,

Managers for California and Pacific Coast,

General Office and Supplies,

LIVERMORE, ALAMEDA COUNTY, CAL.

"PERIOD" WINDOW SCREENS,



For Exclusion of Flies, Mosquitos, Etc.,

For New Buildings.

The stiles of the upper sash are continued to form a panel, in which is placed a wire netting, so that when the upper sash is lowered the screen follows the sash and fills the space. The lower screen operates in a similar manner, but is made half the thickness of sash, and is detachable. Both screens can be made thin and detachable if so desired. In most cases the top screen is sufficient. Both of the screens are protected from the weather, and are entirely out of sight when not in use. For particulars, apply to

J. J. NEWSOM, Architect,

321 California street, S. F.

The GORHAM SEEDER AND CULTIVATOR COMBINED



No Other Machine Presents such an Array of Useful Devices, and, taken together, they Constitute the Gorham Seeder a Machine Distinct and Separate from all others of its Class.

We Ask all Those in Want of a Seeder to Call upon us and Give our Machine a Thorough Examination, or Write Directly to Us.

We can produce single testimonials that would fill this page, claiming for it a reputation as broad as its use is extensive. Among the hundreds who have used them we refer to as many as space will admit, in different parts of the State, who are using from 1 to 16 machines each:

Dr. Glenn, of Jacinto; R. S. Cary, Sacramento; Charley Coyle, Woodland; G. W. Scott, Yolo Co.; Bullard & Co., Chico; John Simpson, Tehama; E. Hunter, Princeton; John Boggs, Colusa: Murdock & Jones, Colusa; Overhiser, of Grangers' Union, Stockton; A. L. Layre, Fresno Co.; I. Friedlander, San Francisco; John Mitchell, Modesto; Grangers' Union, San Jose.

THE SIX-FOOT MACHINE, with two horses, will seed 12 acres per day easily. THE EIGHT-FOOT MACHINE will seed 16 acres per day; THE TEN-FOOT MACHINE, with four horses, will seed twenty-five acres per day; THE TWELVE-FOOT MACHINE will seed 34 acres per day; THE FOURTEEN-FOOT MACHINE, with six horses, will seed 40 acres per day. ☞ Extras of all parts always found with us.

Our Assortment of Harrows is the Most Complete to be found in the State.

Iron Harrows; Hard Wood Harrows, with adjustable hinges; Teeth of the Best Toe-Cork Steel; seven and nine Chisel Tooth Cultivators, with Reversible Teeth.

COLLINS' CAST CAST STEEL PLOWS.

The people of the coast need no longer be humbugged by imitation Cast Cast Steel Plows. We will keep the Genuine Collins' Steel Plows, made expressly to suit the wants of this trade; also, a full line of Extras for the above goods, which we guarantee to fit.

Feed Cutters, Wine and Cider Mills, Barbed Wire for Fencing, Wagons, Spring Wagons, Halliday Windmills, Etc.

KELLER & CO., 43, 45 and 47 J Street, Sacramento, Cal.

LEVI STRAUSS & CO.,



Patent Riveted

Clothing,

14 & 16 Battery St.,

San Francisco.

These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

Patented May 12, 1873.

USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY.

Elastic Truss.

Reader, are you afflicted with the scourge of humanity called "Hernia?" Well then; as much as you value health and comfort, give our Elastic Truss a fair trial, and our work for it, you will never again wish to wear anything different. For simplicity of construction, durability, ease, convenience, efficacy and quickness of cure, it stands unrivaled. MAGNETIC ELASTIC TRUSS CO., 609 Sacramento Street., S. F.

FRED WOLFF,

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Particular Attention paid to

Country Work.

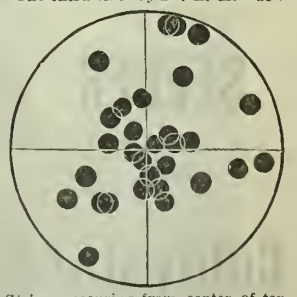
Address, No. 433 FULTON STREET, SAN FRANCISCO.

Winchester Repeating Rifle.

MODEL 1873.



One-third size by Dr. E. H. Harde



String measuring from center of target to center of each shot, 32¾ inches. Average distance of each shot, 1 9-100 inches.

The Strength of all Its Parts,

The Simplicity of Its Construction,

The Rapidity of Its Fire,

The Power and Accuracy of Its Discharge,

The Impossibility of Accident in Loading,

Commends it to the attention of all who use a Rifle, either for Hunting Defense, or Target Shooting.

The San Francisco Agency is now fully supplied with all the various kinds and styles of Arms manufactured by the Winchester Repeating Arms Company, to wit:

Round barrels, plain and set, 24 inch—blued. Octagon barrel, plain, 24 inch—blued. Octagon barrel, set, 24, 26, 28, 30 inch—blued. Octagon barrel, set extra heavy, 24, 26, 28, 30 inch—blued. Octagon barrel, set 24, 26, 28, 30—extra finished case hardened and check stocks. Octagon barrel, set extra heavy, 24, 26, 28, 30 inch—extra finished—C. H. & C. S. Octagon barrel, set, 24, 26, 28, 30 inch. Beautifully finished. C. H. and C. S. Known as "One of One Thousand." Octagon barrel, set, gold, silver and nickel plated and engraved. Carbines blued, also gold, silver and nickel plated. Military rifle muskets, model 1873. Rifles, muskets and carbines, model 1866. **Reloading Tools, Primers and Parts of Arms.**

A heavy stock of Cartridges Manufactured by the W. R. A. Co., for all kinds of Rifles and Pistols, constantly on hand and warranted the best in the market.

JOHN SKINKER, No. 108 Battery Street, San Francisco,

SOLE AGENT FOR THE PACIFIC COAST.

FARMING IMPLEMENTS

FOR SALE BY MARCUS C. HAWLEY & CO.

Gilpin Sulky Plow.

IRON BEAM, IRON FRAME, SIMPLE IN OPERATION,

STRONG and DURABLE.



FIRST PREMIUM

Awarded it by the Illinois State Board of Agriculture, over NINE competitors, in a FIELD TRIAL at Peoria, Sept. 8th, 1874.

Cuts 16 inch, with Extra Point, Price, $75.00 or $67.50 Cash.

☞ We offer to the trade a Sulky Plow which we pronounce superior in point of strength, durability, and ease of operation, to any of its competitors. It is locked in the ground by one lever, at various depths from two to nine inches, maintaining a level position at all depths; and is lifted clear of the ground with ease by the same lever. The draft is direct from the end of the beam; and the "land" is gauged by a clevis in the natural way, avoiding the usual side draft. It has no complication of levers or gearing.

MARCUS C. HAWLEY & CO.,

108 and 110 Front Street and 12 and 14 Pine Streets, San Francisco,
COR. J & SECOND STREETS, SACRAMENTO.

SAN FRANCISCO MARCUS C. HAWLEY & CO. SACRAMENTO.

The Deere Gang Plow.



LIGHTEST DRAFT GANG PLOW MADE.

Simple, Strong and Durable — Iron Beams, Iron Frame, Iron Wheels.

Price, 10 & 12-inch Cut, $100, or $90 Cash.

☞ As proof of the superiority of the Deere Gang, 2,000 of them have been sold during this, the first year of its introduction, and are operating to the entire satisfaction of every purchaser. In every comparative test it has shown marked advantages over all other gangs. And in the great Illinois and Iowa State trials, 1874-5, it was awarded the FIRST PREMIUMS over all competitors, and pronounced perfect in all respects. The Deere Gang Plow is superior to all others. It was put to the severest tests at the County Fair, San Jose, in competition with the Milpitas, Santa Clara and Sweepstake Plow Company's Plow, Hill's Eureka Gang Plow and others, and after two days' trial the committee Awarded the Premium to the Deere Moline Gang Plow.

MARCUS C. HAWLEY & CO.,

108 & 110 Front Street and 12 and 14 Pine Streets, San Francisco,
COR. J & SECOND STREETS, SACRAMENTO.

Buckeye Broadcast Force Feed Seeder.

BEST

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SEEDER

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IN THE

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FORCE FEED

Without

CHANGE OF GEARS



THE

Buckeye Seeder

Stands at the Head of the Seeder Class.

NONE CAN COMPARE WITH IT.

Best Quality of

MATERIAL,

HIGH WHEELS

IMPROVED

SHOVELS.

We are confident that we are offering a Broadcast Seeder which, for durability, good workmanship, neatness and efficiency, excels any machine of its kind in the market. There are many valuable improvements on the Buckeye not found on any other Seeder.

MARCUS C. HAWLEY & CO.,

Sole Agents for the Pacific Coast, - - - SAN FRANCISCO and SACRAMENTO.

PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, OCTOBER 28, 1876. [Number 18.

Great Whaling Disaster.

Tidings come of a dire disaster to life and property among the intrepid men who hnnt the leviathan in our frozen northern waters. The history of whaling is dotted with hardsbips and disasters, bnt still the hardy whalers pursue their hazardous occnpation. In 1871 there was a catastrophe similar to the one which we are pained to chronicle this week. The story is old and yet ever new. The theme is of painfnl interest.

The survivors of this latest disaster reached this city on Saturday last on the bark *Florence*. This ship had on board 190 men, being part of the crews of 12 whaling vessels which were abandoned in the Arctic ocean on the 5th of September. The remainder of the crews of these ill fated vessels have gone to Houolulu in the bsrk *Three Brothers*. For three days after the abandonment of the fleet, the *Florence* had 360 men on board, more than conld possibly get below decks at one time.

The following are the names of the abandoned ships: Bark *Onward*, of San Francisco, 303 tons; bark *Cornelius Howland*, of New Bedford, 333 tons; bark *Clara Bell*, of San Francisco, 197 tons; barkentine *Josephine*, of Boston, 598 tons; ship *St. George*, of New Bedford, 393 tons; ship *Camilla*, of Boston, 854 tons; ship *Marengo*, of New Bedford, 478 tons; bark *James Allen*, of New Bedford, 350 tons; bark *Java*, of New Bedford, 309 tons; bark *Acors Barns*, of New London, 297 tons; Hawaiian barks *Desmond* and *Arctic*.

The story of the disaster is like that of numbers which have preceded it. The ships were having a prosperous season, the catch of whales was large, and the sailors plied the narpoon in the face of impending dangers nntil the threatening ice closed in npon them and they were fast beyond escape in the "ice pack." The masters of the lost ships have prepared a statement of the hardships they suffered, and from this we take several paragraphs.

Two ships were first enchained in the ice, and soon afterward escape was cut off from the remaining ten. At times they could see the open water, but could not move an inch toward it, being held by the ice as by a vice, and drifting into different positions. The icebergs were immense, some of them being fully three miles in length. When I speak of an ice pack, I do not mean a smooth, nniform surface, like the face of the ocean in a calm; but a broken, heaped np, irregular jam of ice-blocks drifted ashore by the sea and the wind from the north and east, and hemming ns in beyond all possible chance of extrication.

It was finally decided that, to save our lives, we should be compelled to abandon onr ships and face nnknown hardships and danger in a struggle for life. September 8th was the day chosen for the final start, if nothing turned ont in our favor. The ships at this time were moving slowly, frozen hard and fast, in the pack. During the night it came on a thick northeast snow storm. and at daybreak all hands were started, a hasty meal taken, and in the face of a heavy snow storm we commenced our dreary and nncertain march. Thus we marched day after day for a week, undergoing the severest privations. At length we descried the bark *Florence* and some days afterward the bark *Three Brothers*, and our delivery was accomplished.

After meeting the *Three Brothers*, a part of the wrecked crews from the *Florence* was put on board the *Three Brothers*, and on the 24th got under way and set sail, the *Florence* for San Francisco, and the *Three Brothers* for Honolulu.

The fate of some men who went back to the ships cannot be positively told, but if they do not reach the land and live among the natives, a lingering death is certain, however distant it may be, as not a vestige of any of the ships that were abandoned in 1871, which were carried away by the ice, was ever seen afterwards, and judging by that, as these ships are in a much worse sitnation, having no defence against the ice, the probabilities are that they will be crushed by the ice, rudders torn off and they reudered totally unmanageable. If by any possibility they should drift out, they will go ashore, but it is our firm opinion they will never come out of the immense pack where they were left, as the whole pack moves together and they are frozen in solid, nothing but some extraordinary commotion among the ice with a good crew on board and ships free to work, could have brought them ont before the abandonment; how much less chance, then, with none to manage them, we leave others to judge.

The illustration which we give on this page will enable the reader to better realize the desperate straits into which ice-locked ships are brought. The crushing, grinding masses of ice soon carry away the rudders and rigging, and often stave in the strong sides of the vessels. The scene is like that which the narrative depicts when the prisoned whalers are forced to take to their boats, with such food and blankets as they may be able to carry, and set out in the hope of finding help in open waters. As the eye rests upon a picture like this, and as we contemplate the sufferings which these refugees from Arctic seas have nndergone, there arises a thankful spirit that our lines are cast in pleasanter places, and that the peace of rnral life is not invaded by such heart-rending disasters as these, which call forth our sympathy for those who endure them.



WHALING DISASTER—LOST AMONG THE ICEBERGS.

The Health Officer is still at work fumigating Chinatown.

CORRESPONDENCE.

East and West—No. 4.

(Written for the RURAL PRESS by PHILMORE.)

As with fruit, so with meats of nearly all all kinds there appsars to be a diversity of opinion. We belisve it is generally concedsd that mutton is much better in California thsn it is in the Eastern States. But nearly all other kinds of meat and fish are generally believed to bs a little below the a'andard of that raised east of the Rocky mountains. Beef that is stall-fed certainly cannot be inferior in one place or another; bnt we have very little of such npon our tables. But there seems to be no good reason why our grass-fed cattle should not make as good beef as those fed npon grass elsewhere, especially as all the nutritious virtues are retained in ours, while in the East they ars soaked out by constant dews and rains. Our pork is certainly inferior to that raised in any of the New England, Middle or Western Statss. Poultry is also much infsrior to that raised in the Esst. Whether we attribute it to ths diffsrence in the food upon which they are fed or to the climate or to other causes, we must certainly give preference to Boston before any poultry market we have known Esst or West. In the great corn-growing regions of the far West one wonld suppose they would have the finest poultry in the world, but in reality it dosa not compare with that fattened and prepared for market in the New England States, especially for the Boston market at Thanksgiving snd Christmas. The mannsr in which it is dressed and its appearance is enough, hnt when you taste it there can no longer be any doubt of its superior excellence. Turkeys, geese and chickens are all vastly superior to those sold in the market here.

Game is not so abundant thsre, but we believs the quality is eqnal at least to that which we have here. Nearly all wild game to ns is alike. That is, venison in one place is very like venison in another, and so with bear, geese, ducks, quail, etc. Grouse and psrtridgea are very much alike, snd all other small game does not differ greatly in different localities. We have somo excellent fish, but there is a chsnce for improvement even in these. There are an abundance of fine, large aalmon in our waters, hut the man from Maine is very liksly to look back and compare them with with those from the Penobscot or Kennebeck. The codfish upon this coast are, we suppose, like codfish elsewhere, but to the Eastern man those that are caught upon the banks of New Foundland are preferable. And in fact, ao it is with all other kinds of fish. Our brook trout seem to lack ths flavor of those we canght in our youthful days. Indeed, we question very much if those we there thought so delicious would taste the same to us now; and may not a great many of the compsrisons made bs unfavorable to what we now have for the aame reason, and so with fruits and, in fact, all that we eat and drink. What man doea not look back and compare what he remembers with so much pleasure when a boy with what he tries to relish to-day, and who is there that is entirely satisfied with the comparison?

Orange Scale Bug—Coloring for Butter, Etc.

EDITORS PRESS:—If Mr. Bristol can refer to the RURAL PRESS for the first half year of 1874, he will find there, under the head of "Suggestion to Orange Growers," a slight acconnt of what I take to be the ravagea of the scale bug in the Azores.

I aent you the information at the time, hoping that it might serve as a warning beacon to those who were inclined to "put all their eggs in one basket" of orange treea. The whole of the orange groves on the islanda were totally destroyed, and I think Mr. Bristol might learn from some of the numerous Portuguese who hail from those islands what methods they unsuccessfnlly adopted. There is something in knowing what *not to do*.

Coloring for Butter.

Sometimes at thia aeason there are dairymen making a good article of "pale faced" butter, that would sell for an enhsnced price if they conld put on the gilt edge. I find a good way to color bntter ia aa follows: Take a close grained, deep orange fleshed squash (the Hubbard is the best I know), the night before churning, and after removing the stringy part that encloses the seeds, scrape very fine about a teacupful of the hard grained flesh. Stir this well into a pan of skim milk, 24 hours old, (not sour) let it stand all night and in the morning strain the milk into your cream can through a sonnd piece of cheese cloth.

Thia will nicely color about 25 pounds of bntter, and impart no perceptible taste. The sqnash mnst be deep colored and fine grained or snccess is not guaranteed. I have read of carrot being aimilarly used, but I think I am the inventor of squash coloring.

The Butler Market

Seems pretty heavily stocked thia year. Some of last year's pickled roll appesrs to be on hand yet. In 1875 the market wss relieved by shipments East during the spring months.

Could not the dairymen's associalion do somsthing towards establishing a steady market East for California butter during February snd March? Mr. Shattnck told me his firm, Wooster & Shattuck, lost money shipping East in 1875, but prices were hlgh here then.

EDWARD BERWICK.

[The trouble with Mr. Berwick's squash coloring, as with the carrot coloring, is that the introduction of this kind of vegetable matter into tho butter brings in an element which is prone to decay, and though for butter designed for immediate consumption it is perhaps open to little objection, it will not do where the butter is liable to he kept for some little time. Butter is best colored by carrots and sqnashes by pnt-ting them through the cow. If coloring matter is to be introdnced into the milk, nothing is so good as annatto. Its strength of color canass the amount used to be a minimum, and the method of its preparation prevents decomposition. It is best to use either the *annattoine*, a trustworthy preparation, or the annatto seeds treated with canstic potash. What is called "basket snnatto" is fonnd to bs prone to contain all kinds of impuritiss.

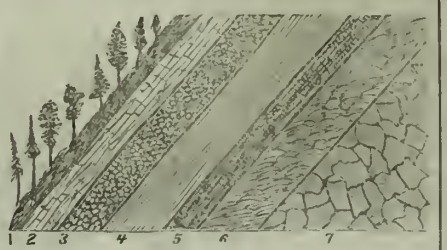
Doubtless something could be dons in the way of finding an Eastern demand for our butter surplus, but it must be done cautionsly and wisely. The snbject is certainly worthy of investigation and discussion.—EDS. PRESS.]

Geological Outline of Santa Cruz Range

(Written for the PRESS by C. L. ANDERSON, M. D.)

San'a Cruz range of mountains extends from the Golden Gate to the Bay of Monterey. It is abont 75 miles long by 25 miles wide, commencing under the Golden Gate and rising gradnally in a south-easterly direction, reaches its highest point in Monnt Bache (Loma Prieta of the Spaniards), 3,780 feot, which is nearly on a direct line between the cities of San Jose and Santa Cruz. Thence, by a series of gently undulating foothills, it slopes down to the Pajaro valley and the Bay of Monterey, to the sea level.

This range is noted for its abundance of timber, running streams, rich soil and salubrious climate. It abounds in grand and beantifnl scenery—the bay of San Francisco, Santa Clara and Pajaro valleys, and Monte Diablo range, including Mount Hamilton, on one



Structure of the Santa Cruz Mountains.

one side, and the Pacific ocean on the other.

The amount of timber, and the great variety for fuel and building purposes, is immense, and, as yet, scarcely touched.

Grapes, apples, peaches, apricots, oranges, figs, almonds, and frnits of like character can be grown of fine qnality and abundant in many places in this range.

The flora is exceedingly varied and interesting, embracing perhaps a larger nnmber of species than can be found on an equal area anywhere in the United States.

There is a great variety of mineral springs of as valnable qualities as any country can boast of. Some day invalids in large numbers will resort to them. The intrinsic value of the waters will be aided by the genial climate in which they are located.

I herewith present a geological section of this range as it wonld appear if unbroken or undisturbed.

1. *Soil.*—Thia is of the richest quality, made up, as it is, of the *debris* of the different rocks underlying and intermixed with an abundance of vegetable mold.

2. *Alluvium.*—Earth deposited from streams or lakes. Present in the little basins and valleys of streams.

3. *Conglomerate.*—More or less cemented in large, uneven masses.

4. *Shale and Sandstone.*—In this formation is often found coal and petroleum. There are places where large masses of sandstone are saturated with petroleum. The coal is found in thin strata, of good quality, but nowhere, as yet, discovered in quantities sufficient to pay for mining.

5. *Crystalline Limestone.*—This is of pnreat quality, and the limo manufactured from it cannot he excelled.

6. *Metamorphic.*—The limestone gradnally runs into the metamorphic. This formation is most abundant, having, at some period of the earth's history, been stratified and anbjected to heat. In placea gold has hecn depoaited.

7. *Granite.*—Once in a while this is found at the surface, but not often. There are places where granite of good quality for building purposes can be obtained.

These formations are very much broken and distnrbed; and at no one place do they assume much regularity. Hence, I have called this section *ideal*, in order to show that this range, if perfect, as it may have been before the upheaval, would present the formations in regular strata, and by inclining them to the center of a ridge, they wonld appear like my illustration. In this grouping the line between each formation is not always very distinct. The two contiguous groups combine so as to produce a great variety of rocks.

I present this geological outline that at some fntnre time I may particularize some of the things found in this exceedingly interesting range of mountains.

Santa Cruz, September 21st.

THE SWINE YARD.

A Prize Offered for an Essay on Swine.

EDITORS PRESS:—The object of the American Berkshire association is to revise, preserve and publish the pedigrees of pure bred Berkshire swine; also to collect and disseminate information calculated to advance the interests of swine breeders generally.

In furtherance of a part of its work, and in view of the favor with which the premium essay on the origin, breeding and management of Berkshires was received, the association has decided to offer another premium of $100 for the best approved essay on the diseases of swine, their causes, preventives and remedies. Said essay to be practical and exhaustive. The competing esaays to be forwarded to this office on or before the 1st of January, 1877. The award will be made and the money paid at the annual meeting in February following. All the competing esaays will be the property of the association.

Competition is invited from all practical men who have given attention to the diseases to which swine are snbject. Prof. Law, of Cornell university, N. Y.; Prof. Smith, of Toronto veterinary college, Canada; Hon. T. C. Jones, of the *National Live Stock Journal*, and E. G. Bedford, Esq., of Kentucky, have kindly consented to act as the Awarding Committee.

The premium essay will appear in Vol. II. of the American Berkshire Record, now in course of preparation, the pedigrees for which, as fast as approved and certified, have record numbers assigned them, and certificates of registry forwarded to parties entitled to the same, in advance of publication in Vol. II. Address, Secretary American Berkshire Association, Springfield, Ill.

A Profitable Hog.

The following description of a profitable hog was reported by the committee at the Swine Breeders' convention at Indianapolis, Indiana: He must have a small, short head, heavy jowl and thick, short neck; ears small, thin and tolerably erect, not objectionable if they droop slightly forward; must be straight from the neck back to flank; must be let well down to the knees in brisket; of good length from head to tail; broad on the back; ribbed rather barrel-shaped; must be slightly carved or arched in the back from shoulder to the setting on of tail; tail small; long in the ham from hock to the letting off of the loins; shoulder not too large to give symmetry to the animal; ham broad and full; hair smooth, and evenly set on; skin soft and elastic to the touch; legs short, small and well set under; broad between the legs; good depth between bottom and top of the hog; with pleasant, quiet disposition; should not weigh more than 300 or 400 pounds gross, at 12 to 18 months old, according to keep; color may be black or white, or a mixture of the two. The above described hog will measure as many feet from the top of the head to the setting on of tail as he does around the body, and will measure as many inches around the leg below the knee as he does feet in length around the body; depth of body will be four-fifths of his hight.

MEDICATING A PIG.—At a recent meeting of an English farmers' club, Prof. McBride spoke of the difficulty of administering medicine to a pig. He said: To dose a pig, which you are sure to choke if you attempt to make him drink while squealing, halter him as you would for execution, and tie the rope end to a stake. He will pull back until the rope is slightly strained. When he has ceased his uproar, and begins to reflect, approach him, and between the back part of his jaws insert an old shoe, from which you cut the toe leather. This he will at once begin to suck and chew. Through it pour your medicine, and he will swallow any quantity you please.

AMONG recent communications to the French Academy on the subject of phylloxera was one by M. Thenard, describing the good results obtained by stripping off the bark of phylloxerized vines. This is easily done by means of a steel glove; and it frees the vine from the insect during the aerial evolution of the latter. The method might prove more advantageous than that which attacks the phylloxera during its subterranean life.

THE Treasury Department has issued a circular requiring sealed cars to be used in transporting across the continent unappraised merchandise subject to import duty.

SHEEP AND WOOL.

Prosperity in the Wool Trade.

A marked indication that the revival in business now observable is not spasmodic is furnished by the fact that the improvement in one branch of trade is systematically governed by the revival of another. The wool business, which during recent years has suffered under a general depression and inactivity, has caught the impulse of other industries, and those engaged in dealing in wool are filled with the same confidence to be noticed in other branches of trade. In April and May of this year the wool market was very much depressed, and very little foreign material was imported, because wool commanded a much higher price in Europe than could be obtained for it in this country. At that time a great number of the woolen mills had stopped running, and there was little prospect that a brisk market could be secured for the raw material. During this state of uncertainty the wool clip of June was thrown upon the market, and merchants bought it in at a low figure. The mills throughout the country began to run, and as the season advanced manufacturers found orders crowding in more rapidly than they could fill them. It was necessary to purchase the raw material, and those who bought it in June began to reap the benefit of reviving trade. The wool dealers who purchased in June, when wool growers were glad to turn their products into money, realized, when the demand set in, an average profit of from eight to ten cents per pound.

Whether or not the raw material will advance to a higher figure, merchants say will depend altogether upon the market for woolen fabrics. They assert that so long as the demand from the mills continues, the raw material is certain to rise in value. They claim that there is not enough wool produced in this country to supply the manufacturers of woolen goods, and that wool is bound to advance to the figure which the imported material commands in the market. In conversations had with several merchants engaged in the wool business, the prevailing feeling manifested was that, judging from the present state of the market, the wool business would continue good throughout the fall and winter, up to February. These merchants suggested that if the manufacturers of woolen fabrics could have the choice of wool from the different countries of Europe, the American products in a few years would find a market with foreign nations. In order to make goods of every grade it is necessary to use some classes of the raw material produced in Europe. The high rate of duty, the merchants affirm, has made Australian, German, and other wools unavailable. The duty upon the raw material, "imported in the ordinary condition, as now and heretofore practiced," is on first-class unwashed clothing wool, coating 32 cents or less, 10 cents per pound and 11 per cent. ad valorem. Upon unwashed wool costing 32 cents the duty is 12 cents per pound and 10 per cent. ad valorem. The duty upon washed wool is double these rates. The duty required on combing or second class wool is 10 cents per pound and 11 per cent. ad valorem for goods costing 32 cents or less per pound. The duty upon the third class, which includes carpet and similar wools, is three cents per pound for washed and unwashed costing 12 cents or less per pound; on that of more than 12 cents per pound value the duty is six cents per pound. The total receipts of wool at New York from foreign countries, from January 1st to April 1st, 1876, were 19,777 bales of carpet wool and 204 bales for clothing, making 19,981 bales, compared with 13,841 bales for the corresponding period in 1875. The number of bales of domestic wool received was 12,137 in 1876, against 7,818 for the corresponding period of the previous year. Merchants think that the lowest figures for wool were reached months ago, and that the trade has now been started upon a healthy and prosperous basis.—*N. Y. Tribune.*

Sheep and Dogs.

The London *Agricultural Gazette* tells how a sheep-killing dog was cured: A large stake was driven into the ground, in the middle of the field where the ewes and lambs were feeding. To this stake Boatswain, the sheep-killer, was secured by a strong rope, after which he was left to the tender mercies of the Mother Muttons, which mercies were "few and far between." Poor Boatswain howled most piteously, as they charged him from every quarter, but from that time he had not the conscience to look a sheep in the face. He is cured.

How a Sheep Killer was Detected.

The report of the district veterinary surgeons in Wurtemburg makes us acquainted with a novel device for discovering dogs which have been worrying sheep. In February a dog attacked a flock during the night, and killed 11. The shepherd reported the circumstance to veterinary surgeon Osterstag, who soon after discovered a dog which, from its general appearance and muddy condition, he suspected to be the culprit. He accordingly resolved to test his suspicions by giving it an emetic; the effect of which was to bring up some flesh and ear, corresponding to that of one of the sheep which had been partially devoured. Another dog was suspected, and to this the same test was applied, but the creature only vomited potato food. In the law court to which the case was taken, the owner of the first dog had to pay for the whole of the worried sheep.

The Dairy.

The Dairymen's Association—No. 3.

We pursue our reports of the dairymen's meeting by taking up the subject of breeding dairy stock. The subject was introduced hy Robert Ashburner, of San Mateo county, with a paper on

The Short Horns as Dairy Stock.

The Short Horns, as a breed of cattle, have acquired the almost unqualified reputation of being unprofitable for dairy purposes. When we take into consideration the way in which they have been treated—bred, fed, and managed generally of late years by the speculative class of breeders of this useful breed of cattle, it is not to he wondered at that they have got the name of being almost useless as dairy cattle, for whatever purpose or use cattle of any breed are wanted for, they must be bred and fed with the object always in view of attaining the greatest degree of perfection for that particular purpose. In looking over the importations of Short Horns that have been made into this State, how many people do we find who have imported them for their own use, to hreed from and use as farmer's oattle, or "rent paying stock?" Have not the majority heen imported for speculative purposes—simply for putting money into the pockets of the importers—and many of those, too, of an inferior quality, with many of their most glaring defects covered up with fat, that had been laid on, layer after layer, from oalfhood for show and for helping the sale of the animal. Cattle of any breed, treated as the Short Horns have been for a number of years back, their dairy qualities being almost entirely ignored, would become a meat instead of a milk producing breed, for hy constant feeding for the production of heef, the flesh and fat producing qualities become developed to the detriment, and, in some instances, almost total annihilation of the milk producing powers of the cow. There are hundreds of Short Horn cows at this time that do not give enough milk for their own calves from that very cause. Now, this shonld not be so; I, for one at least, oontend that there is no more profitable breed of cattle for the general farmer than the Short Horn. What a farmer wants is a cow that will yield a good profit in milk, hutter, or cheese, according to his situation for the sale of any one or more of these articles, besides giving enough milk for her calf as long as she is useful as a hreeder, and then, after she is done with in the dairy, quickly fatten up into a good carcase of beef; and this is what we have in the right kind of a Short Horn cow.

As this is probably the first paper on the subject that has been read at a meeting of dairymen in this State, I will give a few quotations from two or three standard works on cattle, relative to the performance of some Short Horn cows at the pail, in order to show that the material for the foundation of a desirable class of dairy cattle, of which there are now a great many herds, both in the United States and England, that have not been sacrificed at the shrine of fashion, but are in every way kept for the useful qualities which existed in

The Ancient Short Horn.

"From the earliest periods as to which we have any accounts of our breeds of cattle, the counties of Durham and York have been celebrated for their Short Horns, but principally, in the first instance, on account of their reputation as extraordinary milkers. It may be asserted on the best evidence that as a breed they have never in this particular been equaled. The Yorkshire cow, which now almost exclusively occupies the London dairies, is an unanswerable proof of the possihility of uniting the two qualities, fatting and milking, perfectly, but not at the same time. They succeed each other, and at the periods when it suits the convenience of the dairyman that they should. The quantity of milk given by some of these cows is very great—it is by no means uncommon for them to yield in the beginning of summer 30 quarts per day. There are rare instances of their having given 36 quarts a day, but the average may be estimated at from 22 to 24 quarts per day.

"We have the record of a oow belonging to Mr. Calvert of Brampton, yielding from her milk 373 pounds of butter in 32 weeks, and was lame with foul in her foot during six weeks of that time, which lessened her quantity of milk."—Youatt, pp. 95, 135, 136.

Mr. Chas. Colling in 1804 says: "my, sister, who was then living with me, said that the milkmaid had repeatedly told her that one cow gave an extraordinary quantity of milk. They agreed to go and see the oow milked, and measure the milk. They did so, and state, after seeing this cow milked, it measured 26½ quarts." Speaking of this cow, Mr. Bates says: "the next greatest quantity of milk he ever heard of a cow giving was 19½ quarts regularly twice a day while on grass. The next largest quantity he remembered was 18 quarts each end of the day, which was given by a cow belonging to Mr. Alexander Hall, and she was hy Mr. Masterman's bull, whose descendants he afterwards sold to Messrs. Colling."

Mr. Waistell had a cow called Barforth, that gave 18 quarts of milk each milking, and made 16 pounds of butter per week, of 24 ounces to the pound. Mr. Bates never had a cow that gave (to his knowledge,) more than 14 quarts to a meal. His 1st Duchess gave that quantity, which made 21 ounces of hutter per meal when churned by itself. Mr. R. Colling's Brighteyes (the dam of the celebrated Princess, hy Favorite,) gave 15 quarts at each milking. Matchem cow (the foundation of the Oxford family,) never gave less than 12 quarts at a milking when on grass after calving.—Bell's History, pp. 20 to 22.

Mr. Bell, in the same work, page 356, says: "I can fortify the experience of Mr. Bates respecting the milking properties of the best improved Short Horns. I have a tribe in which one cow, for many weeks after calving, gave regularly nine gallons and three pints of milk per day. The hair and handling of the old tribe is not in the least deteriorated," which shows that we can have good Short Horns for the dairy without sacrificing the quality of flesh; indeed, it is a rare thing to see a cow with a thick, coarse hide, hard hair and hard flesh—in other words, a bad handler—that is a good dairy cow.

Mr. Allen, in his work on "American Cattle," says of some of the earliest importations of Short Horns into the United States: "These were said to be well fleshed animals, and the cows remarkable for milk, giving as high as 32 quarts per day. The early importations into the United States, say 50 years ago, were those chiefly of which the cows excelled as milkers. Remarkable yields of their milk and butter were recorded in many agricultural publications of the day, as well as in the American Short Horn herd books since." That the inherent quality of ahundant milking exists in the Short Horns, no intelligent breeder of them need doubt.—Allen, pp. 146, 153 and 160.

Some of the above named cows are those from which are descended some of our very best families of Short Horns: Duchess, Oxford and Princess. The descendants of Princess, by Favorite (252), are to this day considered *the* milking family of Short Horns, par excellence; although there are no doubt many others equally as good. I myself have had five—and only five—pure bred cows calve since the 1st of June last, of three different families, all of which gave over five gallons of milk per day, and two of them not less than six gallons for some time after calving. One of them is only three years old, and has had two calves. Another of the five is in her 15th year, considerably past her prime of life. From her I am now raising a bull calf for use in my own herd, to follow a hull who is now three years old, and out of another of the cows named. In this way I hope to

Perpetuate the Milking Qualities

Of my herd.

As I have already said, we must breed and feed for a certain object, whether it be the production of beef or milk, and to do this we must hegin at the heginning—in calfhood. If our ohject is to hreed cattle for beef only, it is undouhtedly the most economical plan, in this country of dear lahor, to let the cows suckle their calves, and thus force them on to early maturity. But that plan involves a great sacrifice of dairy qualities both in cow and calf—in the cow by hahituating her to giving no more than the calf requires for its support, and in the latter by developing the fat and flesh producing qualities—as I have already said—to the detriment of the milk producing qualities.

In breeding cattle for dairy purposes, it is absolutely necessary to

Get the Right Kind of Cows

To begin with, and what is of none the less importance, a good bull of some well established milking family of Short Horns, to breed them to, and then save only the best of the heifer calves to hring up as dairy cows for home use. In

Selecting our Bulls,

We should be careful to choose such as have good sound constitutions, with large digestive organs, and of a masculine character without coarseness. It is an old established fact that the Short Horn hull improves any hreed of cattle upon which he is used; aud amongst the best milkers I have ever seen, have been oows with a single cross of Short Horn blood upon good dairy cows. I have one grade Short Horn cow that I have measured over 32 quarts per day from, for three consecutive days, and at one milking 18¼ quarts of milk.

Some people say that the milk of the Short Horn is not so rich in cream as that of cows giving a smaller quantity, hut we must not forget that there is a value in quantity, whether it he to the man who sells his milk to supply the city market, or to him who makes butter or cheese and can turn the skim milk or the whey to profitahle account.

For the purpose of maintaiuing a good herd of dairy cows, more depends on the way in which the

Young Calves are Fed

Than most people imagine. Dairy cows, when in full milk, consume large quantities of food, and in bringing up young calves we must do all we can to develop their capacity in that direction by feeding them bulky, yet nutritious food, and always plenty of it to keep up a healthy growth. My own practice is to feed milk fresh from the cow for the first three or four weeks, which gives the calf a good start, after which I begin to feed skim milk and a little oil cake gruel, gradually increasing the quantity till, hy the time the calf is five or six weeks old, it gets no new milk. The gruel and a part of the milk is heated, and cold milk added to make it the proper heat for the calf to drink. Before this time the calf will have begun to eat a little nice hay and some hran and oil cake meal mixed, which is generally the first thing they will learn to eat out of a manger. When they have learned to eat a moderate quantity of this with a relish, I begin to place a handful of cut feed—as it is mixed for the dairy cows—in the bottom of the manger and put the meal on top, hy which method they soon begin to eat the cut feed, and by the time they are three months old—if healthy calves—they will do very well without milk.

At this season of the year, when there is no green grass, I have generally a good supply of mangolds, which they soon learn to eat without any cutting, and as the mangolds are fed out to the dairy cows in the pastnre field, I generally allow my calves to run with them in the daytime and have all they will eat.

I raise all the

Heifer Calves From My Best Cows

At all seasons of the year. Mine being a milk-selling dairy, I have cows calving at all seasons in order to keep up the regular supply of milk, and it sometimes requires a bit of good management to get the calves through in good condition, as we have not always too much milk for them, hut sometimes rather the other way.

The young heifers, if kept properly, without stint of food, till are fourteen or fifteen months old, will then be fit to put to the bull, and thus produce calves when from two to two and a half years of age. From having them calve at this age, one sooner finds out whether they are likely to make good and profitable dairy cows; and besides that, by coming into milk when young, the milk secreting powers are more easily developed than when flesh has heen allowed to accumulate till the animal is three years old or upwards, before calving, and, generally speaking, it is less trouble to get them to breed when young.

What Stock the Dairyman Needs.

I think I have now shown hy what I have said, that there is no difficulty in the way of having a milking herd of Short Horns—it is plain that the right kind of cows can be got to start with. What is wanted is judgment in selection for the foundation of a herd—and judgment in hreeding must not be lacking if a man means to succeed as a breeder. As far as I am concerned in breeding Short Horns, I am aiming at such a herd as Mr. Bates had when Mr. Mason said to him; "You can go on hreeding Short Horns because they pay you in milk, hutter and beef, but we cannot unless we can sell at high prices to breeders." Then Mr. Bates must needs show him how much hutter he had for market—I show people how much milk I can sell from a certain number of cows—after which he told Mr. Mason that he had to keep three lots of cows, one to hreed calves and then get dry, which was no hard matter, to attract notice by their high condition; a second lot as wet nurses to rear the calves; and a third lot to supply the family with milk and butter. This latter is the kind of herd we must guard against having unless we desire to gratify our vanity at the cost of our pockets.

The discussion which followed the reading of Mr. Ashburner's paper we will take up next week.

The Vineyard.

Raisin Grapes.

[Written for the RURAL PRESS, in answer to inquiries from H. J. Dennison, J. Fox, J. P. Norton and others.]

EDITORS PRESS:—Yours containing Mr. Dennison's letter of inquiry has only just this day come to haud, owing to its having been sent to my former address. I will answer his questions in the order of their importance.

Muscat vs Muscatelle.

The Muscatelle and Muscat of Alexandria are the same. The "layer raisins" of Malaga are made from this grape. Downing, in his exhaustive treatise, "Fruits and Fruit Trees of America," gives a most accurate descrition of it as follows: "Bunches very large, long, loose, shouldered. Berries large, oval, unequal in size. Skin thick, pale amber, thin, white bloom. Flesh firm, moderately juicy, sweet and rich; fine Muscat flavor."

There are many sub-varieties of this grape, two of the most noted being the Bowood and Cannon Hall. The former has shorter jointed wood than its parent, and possesses the advantage of growing with a much less degree of heat, being well suited to coast localities where there is scarcely sufficient heat to produce the original type in its perfection. The Cannon Hall is the largest of the Muscats. Its bunches are usually more tapering than the parent type. The finest of these I ever saw were produced this year in Mr. Kune's vineyard, of which J. C. Woods, Esq., is the very efficient superintendent. This was formerly the Beard vineyard. It is situated at Mission San Jose, Alameda county. They were so superior in every respect that I took pains to ascertain the history of the vines, and learned that they were obtained by Mr. Ellsworth, a son-in-law of Mr. Beard, from J. L. L. Warren, of the *California Farmer*, some 17 years ago. Evidently they are not of the Haraszthy importation, but were, doubtless, ohtained from Eastern nurserymen who have, in a small way, propagated these and kindred varieties in hot houses for the last half century. In this vineyard, and the adjoining Palmer vineyard, are also many Bowood vines among the other Muscats; these, though under the influence of the cold winds and fogs of the bay, are all loaded with immense compact bunches of fruit.

Spanish Names.

Four years ago I passed the vintage season in Southern Spain, in the vicinity of Antequera, a little village ahout 40 miles north of Malaga, in the most renowned raisin region of the whole world. An account of what I saw was published in the RURAL at the time. I there saw and learned the names of something over 40 different grapes of the Muscat family. The names usually refer to locations, as Sevilla Muscatelle, Alcala Muscatelle, Moron Muscatelle, etc. Sometimes, however, they took the names of individuals, as Kreisler Muscatelle, Rodriguez Muscatelle, etc. Among these different varieties could he found all shades of color from hrownish amher to the clearest green, and tastes from the strongest musk to an entire absence of that peculiar flavor. Much of there differences is doubtless attributable to differences in soil, climate and culture, but there, doubtless, have also been seedlings produced with permanent differences. It could not well he otherwise in a country like Malaga, where raisin production has beeu a leading industry for the past 2,600 years.

California Names.

The Spanish custom of giving individual or local names to varieties of grapes is already being practiced here in California. For instance R. B. Blowers, of Woodland, Yolo county, obtained from the Haraszthy importation a stock of very superior Muscat or Muscatelle vines. These, by heing grown in a locality perfectly suited to their growth, have, under Mr. B.'s careful culture and skillful treatment, become the most noted raisin grape of our State, and are being widely disseminated as, what they truly are, one of the healthiest, hest producing and most perfect varieties of the Muscat family of grapes.

Questions and Answers.

The small, early, musky grape, referred to by Mr. Dennison, is doubtless the Chasselos Musque, or St. Albans. (See "Downing's Fruit and Fruit Trees," page 516).

The Flame Tokay is a very large, thrifty growing, heavy hearing, bright red, nearly round, sweetish grape, of poor flavor. There are two varieties of it, differing chiefly in form of hunches, one being very loose, the other quite compact. Those of the loose bunches make very large, showy raisins, but they are slow to develop the sugar granules and the seeds are very hard. However, after keeping them till they are a year old, the seeds become softened, the sugar granules develop, and they become first-class raisins.

The hlack grape mentioned by Mr. Dennison, sold as the Flame Tokay, is doubtless the Rose of Peru. Unfortunately, in some localities this grape is called Flame Tokay. Bernard S. Fox, of San Jose, one of our best authorities on names, calls this same grape the Black Priuce. The best Flame Tokays that I have ever seen are grown by Dr. Strentzel, of Martinez. He also raises a Muscat, different from the Blowers grape, but fully equal to it, and perhaps superior for a cooler climate.

The red grape, oval in shape, referred to by Mr. Dennison, is donbtless the Traminer, not first-class for raisins—seeds too hard, but a valuable table grape, especially where it has to be shipped long distances to market, as from here to the Eastern cities, which it has reached in excellent condition. R. B. Blowers has them in perfection, as also have many others in Solano, Sonoma and Yolo counties.

Other Raisin Grapes.

Fiher Zagos, an oblong, green or light amber grape, below medium size, with vines of most robust growth, and prodigious bearers. They make a small hut very good raisin, especially for cooking purposes.

White Corinth, a very small, finely flavored, perfectly seedless, white or green-colored grape. These make the very finest of raisins in all respects except size. These raisins will douhtless, in time, supersede, to a great exteut, the larger seeded raisins. Grown by J. Strentzel of Martinez.

Seedless Sultana, similar to, if not identical with, the above.

Black Cornith. This is the smallest of all grapes. They are entirely seedless, of a dark-red or purple color. The Zante currants, or black dried currants of commerce, are these grapes, dried hy laying them on the ground in the sun. Grown by J. Strentzel, Martinez.

Malaga raisin, a grape grown and named by W. B. West, of Stockton. It is much like the Fiher Zagos, though larger and makes a much finer raisin. It also possesses the merit producing fine crops under conditions of climate and culture in which the Muscats would entirely fail to produce anything.

In conclusion I would say that I have descriptions of, and have seen and examined 88 varieties of raisin grapes, each valuable for certain meritorious qualities, all of which are

Continued on Page 290.

PATRONS OF HUSBANDRY.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. WEBSTER; Secretary, AMOS ADAMS.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

COPIES OF THE CONSTITUTION AND BY-LAWS of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

P. OF H.—Subscribers who pay fully one year ($4) in advance for the PACIFIC RURAL PRESS can receive the CALIFORNIA PATRON *free*, or other premiums. See our premium list in another column.

Amendments.

State Grange Constitution.

The Secretary of the State Grange has furnished us with the following amendments to the State Grange Constitution, adopted at the annual session, held October, 1876:

Amend Sec. 2, Art. V, so as to read as follows:

SEC. 2. One-third of all Subordinate Granges entitled to representation shall constitute a quorum for the transaction of business; provided that no Subordinate Grange shall be entitled to representation in the State Grange whose dues are unpaid for more than one quarter.

Sec. 3 of Art. VII, was so amended as to read as follows:

SEC. 3. The Treasurer of each Subordinate Grange shall report quarterly, and pay to the Secretary of the State Grange the sum of one dollar for each man and fifty cents for each woman initiated during that quarter; also, a quarterly due of six cents for each member, and on receipt of said dues, it is hereby made the duty of the Secretary of the State Grange to transmit a receipt for the same to the party forwarding the dues.

Sec. 4, of Art. VII, was so amended as to read as follows:

SEC. 4. The Secretary of the State Grange shall report quarterly to the Secretary of the National Grange the membership of this State, and the number initiated during the quarter.

Sec. 1, Art. XII, was so amended as to read as follows:

SECTION 1. Any brother or sister who is in good standing, clear on the books of the Grange, and who has attained to the fourth degree, is entitled to a dimit upon the payment of the sum of one dollar to the Secretary of the Grange of which he or she is a member. The payment shall be accompanied with a written application for a dimit, signed by the applicant, which shall be read in open Grange, before the dimit shall be issued. Patrons holding dimits may be admitted, without additional fees, to membership in another Subordinate Grange, but shall be subject to the same form of petition, examination and ballot as those first applying for membership, except that a majority vote shall elect them. A dimit shall be void and of no effect unless application for membership shall be made in some Grange by the holder of the dimit within six months from the date of the dimit; provided that the dimit may be renewed for six months on payment of dues for the previous six months to the Grange issuing the dimit.

Amendments to By-Laws of State Grange Constitution.

Amend Sec. 9, Art. I of By-Laws so as to read as follows:

SEC. 9. The Treasurer of each Subordinate Grange shall report quarterly, and shall pay to the Secretary of the State Grange the sum of $1 for each man and 50 cents for each woman initiated during the quarter; also a quarterly due of six cents for each member. He shall send at the same time a duplicate of his report to the Secretary of the State Grange.

Sec. 2 of Art. VII is amended so as to read as follows:

SEC. 2. Persons holding a membership in any Subordinate Grange within this jurisdiction, who may so change their pursuit, or become so associated in business relation that their pecuniary interests are in conflict with the interests of the Order, or with the attainment of any of the objects of this Order, shall be deemed to have forfeited their membership in the Grange. And it shall be the duty of any Subordinate Grange in which such person may hold membership, upon written complaint and charge being made by three members of the Order, to institute an investigation of such charge; and if upon investigation it shall appear that it is founded upon facts, said Subordinate Grange shall without delay expel such unworthy person from its fellowship, giving thereof the notice required by law.

Subordinate Granges.

The following amendments to the Constitution of Subordinate Granges were recommended by the State Grange for their adoption:

Amend Sec. 3, Art. I. to read as follows:

SEC. 3. The officers of this Grange shall be chosen annually, and elected by ballot. Vacancies by death, resignation or otherwise to be filled at a special election at the next regular meeting thereof. Officers so chosen, after being installed, shall serve until their successors shall be elected and installed.

Strike out all of Sec. 1, Art. II, and insert as follows:

SECTION 1. MEMBERSHIP.—Any person engaged in agricultural pursuits and having no interests in conflict with our purposes, of the age of 16 years, duly proposed, elected and complying with the rules and regulations of the Order, is entitled to membership and the benefit of the degrees taken. Every application must be accompanied by the fee of membership. If rejected, the money will be refunded, and no petition shall be received from a rejected applicant until six months shall have elapsed since his rejection. Applications must be certified by members and balloted for at a subsequent meeting. It shall require three negative votes to reject an applicant.

Amend Sec. 1, Art. IV, so as to read as follows:

SECTION 1. Any member of this Grange who is six months in arrears of dues, shall be notified by the Secretary of such delinquency, and if such dues are not paid within thirty days thereafter, such member shall be liable to expulsion, and it shall be the duty of the Secretary to announce in open Grange the fact of such delinquency and notice, and upon a majority vote of the Grange in favor of expulsion, the Master shall declare such member expelled, and order his or her name stricken from the roll.

Amend Sec. 2, Art. IV, so as to read as follows:

SEC. 2. Any member who shall violate any of the principles of the Order, or offend against the Constitution, By-Laws or Rules of Order of this Grange, or Officer or Member of Committee, for non-performance of duty, shall be reprimanded, suspended or expelled, as the By-Laws may direct or the Grange determine.

Amend Sec. 4, Art. IV, so as to read as follows:

SEC. 4. Such charges shall be referred to a Committee of five (5) members, who shall summon the parties and try the case. They shall keep full minutes of the proceedings and report the same to the Grange with their verdict; the witnesses shall give their testimony on the honor of a Patron, and no testimony shall be taken without an opportunity for cross-examination by the accused. Upon judgment being rendered, an appeal may be taken, any time within one month, to the State Grange through its Executive Committee. If no appeal be taken, the verdict, being ratified by the Grange, shall be final. If exceptions to the report of the Committee be filed, the Grange may determine upon their merits, and either sustain the report, or refer the same back, or to another Committee, or grant a new trial. If the Grange deem the exceptions ill-founded, it shall proceed to pronounce the judgment and affix the penalty.

Report of Committee on Grangers' Bank.

Worthy Master and Patrons State Grange:—Your Committee on Grangers' Bank respectfully report that they have visited the bank and find the officers accommodating and obliging gentlemen, the office well kept and arranged for business, and the safe an excellent and secure one. Assisted by the cashier, Mr. Montpellier, we have counted the money on hand and find it to correspond with the books, amounting to $61,042.00; amount cash capital, $210,240.00; amount notes, $511,320.00. Total capital, $721,560.00. Amount commercial business transacted for 12 months, $2,486,000. Showing a creditable amount of business for amount of paid up capital. From the books we learn that managers and employees stand credited on their several accounts, showing that the moneys of the bank are not used for their individual benefit. We are informed that the expenses will be at least $2,000 less this than, last year. Also informed by the cashier, that in his report to the directors and stockholders October 1st, 1876, he expects to declare a dividend of 10 per cent. on the capital paid up, equal to $3 per share. Herewith we attach sworn statement of manager and cashier, "semi-annual," of actual condition of Grangers' Bank for July, 1876. Owing to the limited time allowed your committee, we are not able to make a further report, although offered every facility by managers and employees.

In conclusion, will state that we deem the Grangers' Bank a safe institution for the transaction of business, and believe it an essential feature for the preservation of our Order.

JOE B. CLARK,
E. KELSEY.

Action of the State Grange.

Resolution Offered by R. C. Marshall.

Believing that the general welfare of the Patrons of Husbandry in this State can only be attained through the efficiency of combined agency, and whilst it is our aim to bring producer and consumer into nearer proximity with each other, and thereby, to some extent, dispense with middlemen, and to weaken rings and combinations who have for their object gain regardless of a just compensation for honest toil; and regarding the Grangers' Bank, Business Association and Mutual Insurance Company, outgrowths of our organizations, and having made an examination into their respective workings, and finding that they are working in harmony with us and for our mutual protection, therefore be it *Resolved*, That we will aid, assist and support each of said organizations as long as they act in concert with us, believing in the honesty and ability of the managers thereof.

The above preamble and resolution was unanimously adopted at the meeting of the State Grange held October 7th, 1876.

AMOS ADAMS,
Secretary State Grange.

ADDRESS BY MRS. CARR.—One of the pleasant features of the evening which the State Grange, at its recent meeting, devoted to the feast of Pomona, was an address delivered by Mrs. Jeanne C. Carr, after the concourse had returned from the tables to the main hall. Mrs. Carr spoke extemporaneously and most interestingly of some of the educational and agricultural exhibits which she had studied at the Centennial. We regret that the address was not in form for publication. It was enjoyed by all present, and the speaker received hearty applause and a vote of thanks.

THE GRANGERS' SHIP.—The *Glory of the Seas* cleared on Tuesday for Liverpool with 67,996 centals of wheat, valued at $116,241. This is the largest cargo cleared this season, and with the exception of the *Three Brothers*, is larger than any cleared last year. In 1875-6, 22 vessels sailed hence, the wheat cargoes of which were each valued above $100,000, the aggregate amount of wheat carried by them being 1,219,487 centals, valued at $2,526,219. Since July 1st of this year only three vessels have each taken over $100,000 worth of wheat.

Report of Secretary of State Grange of California, for the Year Ending September 30th, 1876.

To the W. M., Officers and Members of the State Grange: I herewith submit my report of the transactions of the Secretary's office, for the year ending Sept. 30th, 1876:

CASH RECEIPTS FROM ALL SOURCES.

1875.		
Oct. 14th.—W. H. Baxter		$ 431 09
Quarterly dues to Dec. 31st		549 26
Charter fees, two Pomona Granges		30 00
		$1,010 35
1876.		
Mar. 31st.—Quarterly dues up to Mar. 31st		$1,096 87
N. G. postoffice order, to pay postage on N. G. Pro		17 40
Charter fee for one Sub. Grange		15 00
W. A. Fisher		33 35
J. B. Carrington		53 93
National Grange (In currency)		600 00
		$1,816 55
June 30th.—Quarterly dues		$1,018 00
Charter fees for two Subordinate Granges		30 00
Editorial services on CALIFOANIA PATRON		20 00
Charter fee, one Pomona Grange		15 00
Premium on gold		5 25
		$1,088 25
Sept. 30th.—Quarterly dues		$ 759 58
Editorial services on CALIFORNIA PATRON		30 00
Doors, Lumber, etc		20 00
Premium on gold		6 85
		$ 816 43

DISBURSEMENTS.

1875.		
Dec. 31st.—Office expenses		$ 33 64
Draft to O. L. Abbott		55 00
Grangers' Bank		481 55
Amos Adams, Secretary, salary		200 00
		$ 770 19
1876.		
Mar. 31st.—Grangers' Bank		$1,268 06
Printing		115 65
Dishonored draft, charged to Profit & Loss		200 00
National Grange charter fees		15 00
Amos Adams' salary		300 00
Office expenses, discount on draft, postage, etc		121 87
		$2,020 58
June 30th.—Grangers' Bank		$ 645 86
Amos Adams, Secretary		300 00
National Grange charter fees		30 20
Printing		32 00
T. H. Merry, for service on CALIFORNIA PATRON		20 00
Postage, orders, office expenses, etc		65 30
		$1,093 36
Sept. 30th.—Grangers' Bank		$ 398 00
Set of jewels, etc		10 60
T. H. Merry, for editorial services on PATRON		30 00
Printing		11 00
Amos Adams, three months		300 00
Orders, postage stamps, express charges, tax, etc		30 50
		$ 780 11

The Grange will observe in the foregoing tables that I have charged to Profit & Loss a draft of $200. The history of this draft, as near as I can learn it, is as follows: It was drawn by Past Master J. M. Hamilton on the Grangers' Bank, payable to the Treasurer of the State Grange, and out of the "wheat shipment" fund. It was in the possession of Past Secretary Baxter, and he paid it over to me as so much money, or at least I so understood it. On presenting it to the bank for payment, I was informed by its manager there was no money in the fund on which it was drawn, and they could not pay it. Hence I disposed of it as above indicated.

TOTAL RECEIPTS AND DISBURSEMENTS.

Total receipts from all sources, from the ninth day of October, 1875, and up to the 30th of September, 1876	$4,731 58
Total amount paid out between the dates above named	$4,664 24
Cash on hand	$ 67 34
Total amount paid to Grangers' Bank	$2,793 47
Total amount of bills allowed and orders drawn by order of the Executive Committee	$1,585 17
Difference between the amount paid into the bank and the amount of bills allowed and orders drawn by authority of the present Executive Committee	$1,208 30

BILLS ALLOWED BY THE EXECUTIVE COMMITTEE AND ORDERS DRAWN FOR THE SAME.

1875.		
Oct. 15th.—J. V. Webster, Ex. Com. service		$ 14 00
C. H. Cooley, " "		32 25
W. S. Manlove, " "		32 00
Wm Sims, " "		36 50
J. M. Thompson, " "		21 25
A. D. Logan " "		21 00
Oct 19th.—J. C. Merryfield, " " to Oct. 10th		28 00
Nov. 5th.—J. W. Ward, writing up books		25 00
John Cairns, expert		100 00
Dec. 14th.—John Cairns, "		45 00
J. W. Ward, "		100 00
Dec. 11th.—J. W. Ward, "		30 00
Dec. 24th.—J. W. Ward, "		45 00
John Cairns, "		100 00
1876.		
Jan. 6th.—J. V. Webster, Ex. Com. service		22 25
Wm. Sims, " "		42 50
W. S. Manlove, " "		48 00
A. D. Logan, " "		66 50
April 4th.—C. H. Cooley, " " for July term		43 50
J. M. Thompson, Ex. Com. service for July term		18 00
		$ 865 75
1876.		
April 6th.—C. H. Cootey, Ex. Com. service, April term		$ 36 50
Wm. Sims, Ex. Com. service, April term		42 50
J. M. Thompson, Ex. Com. service, April term		24 50
J. V. Webster, Ex. Com. service, April term		21 42
April 10th.—Amos Adams, to apply on salary.		150 00
A. B. Nalley, Ex. Com. service to Oct. 10th, 1875		28 00
April 25th.—John Cairns, services as expert		20 00
Amos Adams, to apply on salary.		50 00
June 17th.—Amos Adams, to apply on salary.		50 00
July 7th.—C. H. Cooley, Ex. Com. service		36 50
W. S. Manlove " "		37 50
July 14th.—Amos Adams, to apply on salary.		50 00
Aug. 8th.—J. C. Merryfield, printing done by Henning		13 00
Sept. 16th.—Amos Adams, to apply on salary for July and August		100 00
A. D. Logan, Ex. Com. service for July term		59 50
		$ 719 42
		865 75
		$1,585 17

MEMBERSHIP IN CALIFORNIA.

Granges reported June 30th, 1876	130
Reporting a membership of	7,660
Initiates for the year ending June 30th, 1876	785
Demitted	62
Suspended	271
Withdrawn	670
Expelled	593
Died	95

MEMBERSHIP IN NEVADA.

Granges reported, June 30th, 1876	2
Members	117
Initiations during year	51
Demitted	4
Expelled	3
Died	1
Withdrawals	1
Granges delinquent over two quarters	5

MEMBERSHIP IN ARIZONA.

Granges reported	1
Having a membership of	30

GRANGES UNDER THIS JURISDICTION.

Granges under the jurisdiction of the State Grange of California	252
Granges that are delinquent in dues for two quarters and over	61
Granges that are delinquent in dues for one quarter	128
Necessary for a quorum to transact business at the present meeting of the State Grange	41

CONSOLIDATIONS AND SURRENDERS.

The Windsor and Geyserville Granges consolidated with the Healdsburg Grange.

Hopeton Grange consolidated with Snelling Grange.

Alliance, Rutherford and Center Granges have surrendered their charters.

There have been three Pomona and four Subordinate Granges organized since the last meeting of the State Grange. Three of the Subordinate Granges were organized in California and one in Arizona.

An application for the organization of a Grange in British Columbia was received at this office, and all the necessary papers and information were sent.

A Grange was recently organized at Fresno, Fresno Co., but no official information of it has as yet reached this office.

During the year past I have received the following sums of money from unknown sources and from persons who have failed to send instructions in regard to its disposition:

1875—Nov. 5th, cash by express		$ 1 50
Dec. 7th, " " "		4 55
1876—Jan. 1st, " from J. A. Goodwin		2 00
Jan. 4th, " " Mosisy		2 00
Jan. 25th, " " Morton		4 25
Apr. 24th, " " Wyatt, Fresno		1 50
Apr. 25th, " " A. M. Jackson, Winters		2 40
May 1st, " " Tibbits, Bakersfield		2 50
May 1st, " " N. S. Misner, Stockton.		5 00
June 11th, " " J. R. Nickel, Cres. City.		2 00
June 15th, " " J. P. Davis, Genoa		1 50
Total		$28 70

These various amounts have all been credited to "unknown Granges," and will remain there until I know further of the wishes of the parties who sent me the money.

I have on several occasions, by circulars through the RURAL PRESS and the CALIFORNIA PATRON, called the attention of brothers sending money to the Secretary's office to the necessity of putting the name and number of their Grange on all packages containing money. If this course is rigidly carried out, it would hardly be possible for mistakes to occur.

All of which is respectfully submitted.

AMOS ADAMS.

San Francisco, Oct. 3d, 1876.

Report of Executive Committee.

To the Officers and Members of the State Grange of California: Your Committee beg leave to submit for your consideration the following synopsis of business transacted by them at their several meetings:

Finding great confusion in the books and accounts of the financial officers, we deemed it necessary to employ competent experts to settle their accounts with the State Grange. And it affords us pleasure to inform the Grange that after months of effort in this direction, we have succeeded in unraveling the tangled thread; getting final settlements with nearly all of the old officers. We have required of the present officers quarterly reports of the business of their offices, so that in the future we expect to avoid discrepancies and confusion in their accounts.

Your Committee have used their best powers to infuse more vitality in the Order by recommending to the Subordinate Granges the adoption of such measures as would relieve them of their dead or useless members. Your Committee have faithfully endeavored to reduce the current expenses of the State Grange and pay up its former indebtedness, and we are happy to state to the Grange that our efforts have been crowned with success.

We would recommend to the Grange to have the minutes of the meetings of the Executive Committee of the past year read in open Grange, so that all may hear and judge for themselves.

Agricultural Notes.

California.

ALAMEDA.

Pearl Barley and Farina.—Washington *Independent*, Oct. 21: Ever since W. F. Laumeister has taken charge of the mills at Niles, they have been grinding out wheat and barley both night and day. But a new species of manufacture has been recently added to the work of these grist mills by the enterprising manager. He has procured the requisite machinery by which he can turn out two articles not heretofore manufactured in our county, and for which there is an abundant demand. These articles are pearl barley and farina. From the Chevalier barley a superior kind of pearl barley is made, and an excellent species of farina is made by a distinct prooess. Thus our home manufactnre is beginning to supply San Francisco with its demand for these useful articles.

COLUSA.

Willows.—Colusa *Inde pendent*, Oct. 21: One feature of northern Colusa county is that the farms are mostly small ones, and the large ranohes will sooner or later be cut up into smaller ones. As the county advances the fact becomes more and and more apparent. It will greatly enhance the interests of this part of the county, and will benefit Willows beyond calculation.

KERN.

The Catfish Crop.—*Courier*, Oct. 19: Mr. S. Jewett has found a catfish about four inches in length, in his ditch near his residence—the first product of the plant made a year ago. He informs us that Mr. Said fonnd one at his place also, about 12 miles from the small lake near town, where the plant was made. It is a very encouraging feature of the new enterprise.

LOS ANGELES.

Windbreak.—Cor. Anaheim *Gazette*, Oct. 21: I am convinced that for shelter and windbreak there is nothing equal to Monterey cypress, planted about 12 feet apart, and left untrimmed after the first two years. One near my honse, twice changed in place, and not yet four years old from the seed, and closely trimmed each spring, is now 14 feet high and eight feet through. A line of such trees would dispose of the wind and raise the temperature. For beanty no tree can equal it. I recommend 12 feet apart, for we do not want to destroy the refreshing sea breeze, but only to control any undesirable blasts, whether from the sea or from the desert.

Los Nietos Valley Items.—*Courier*, Oct. 14: Mr. Orr, a dairyman living near New river, reports his oattle affected with a disease resembling dry murrain. He has lately been feeding his stock liberally, antioipating making considerable butter. One valuable cow has died, and the balance of his herd are sick. The cattle of his neighbors are not affected. Mr. J. Mittis, living upon the Barton place, a few miles from here, shipped this week, direct to San Francisco by rail, 8,400 pounds of English walnuts, the product of his orchard. The day is not far distant when this valley will be found shipping large quantities of oranges, lemons, limes and walnuts, as well as an ahundanoe of the cereals.

Hops.—*Express*, Oct. 21: Other oounties may raise a larger crop than Los Angeles, but we believe the hops of the Dunsmoor & Cole garden, at El Monte, are unsurpassed in quality by any raised on the coast. We have a sample before us that has been pronounced by good judges as the best they have yet seen. Messrs. Dunsmoor & Cole have baled 25,000 pounds of this fine quality of hops from a 12-acre garden this year.

Forest Planting.—Fisher, Richardson & Co. have purchased a portion of La Ballona ranch, and will plant a forest of white ash trees, consisting of 25 acres, this fall. They will be permitted to grow to a size sufficient for use as timber, at which time their value will be incredulous.

Tree Growths.—Santa Monica *Outlook*, Oct. 18: We lately visited the nursery and grounds of Mr. G. D. Compton, where we saw many surprising growths. Fig slips set out last March had grown seven feet high, and had rows of the fruit clinging to the main stem, from bottom to top. Apple trees two years old were bearing, and yearlings had grown from six to seven feet since the beginning of spring. Poplars two years old were towering up 40 feet high. Weeping willows six years old had trunks larger than the waist of a fashionable lady. Orange trees eight years old were well covered with half grown fruit. Grape and other vines, and flowers, shrubs and bushes were growing in the richest profusion. And last, but not the last, all these were watered by a flowing well from which a six-inch stream spouted at least ten feet above the level of the ground.

MENDOCINO.

New Chute.—*Dispatch*, Oct. 21: The new chute of Mr. Helmke's at Cuffey's Cove is expected to be oompleted next week. It is 367 feet in length, and is to be a double chute. The flooring is of narrow strips, a short distance apart, said to be an improvement on the old style of laying the floors of chutes, as the dirt goes through, the friction being less and the wind not having the same force on the chute. B. C. Bell is the builder.

MONTEREY.

Laurella Rancho.—*Chronicle*, Oct. 16: Laurella rancho is the property of N. W. Spaulding, ex-Mayor of Oakland. It is equi-distant from Salinas and Monterey, and has an elevation of ahout 800 feet above the sea level. It contains 7,000 acres, mostly hills and rolling land, When Mr. Spaulding purchased it three years ago, water was the great want, and without this essential element crops conld not be produced. He had a ditch dug to lead in water from Carmel river, a distance of eight miles, at a heavy cost, but the work has already proved to be profitable. The lands which three years ago were barren and practically worthless, now bear luxuriant crops of wheat and alfalfa. An average of 70 bushels to the acre of wheat has been harvested this year in the irrigated fields, and the yield of alfalfa is equally luxuriant. The wheat fields have been plowed and planted with corn, beets and buckwheat, and good crops of these will be produced this season. Squashes and potatoes also thrive. There is very little annoyance from gophers, as the water drowns them in their holes or keeps them from digging any. It is the intention of Mr. Spaulding to convert the place into a stock ranch, and he can raise between 1,000 and 2,000 hogs every year and from 300 to 400 head of cattle. The improvement in the character and worth of the soil for fertility and profit is due entirely to irrigation, and on this account deserves general notice.

Chalame Valley.—*Index*, Oct. 12: Chalame valley is sitnated in the extreme sontheastern portion of Monterey county. Its post-office is named Imusdale and is about 95 miles from Salinas City, by way of Peach Tree valley and Slack's canyon. Chalame valley proper is from half a mile to one and a half miles in width and some 28 miles long. The soil is very fertile and produced abundant crops of grain this season. Hitherto it had been only considered fit for grazing purposes. Apples, pears and other fruits do well, and many of the settlers have planted orchards on their farms. Among these may be mentioned Messrs. Fisher, Imus, Waite, Keeton and others.

NAPA.

The Eastern Shipment of Grapes.—*Register*, Oct. 21: We noticed the other day the fact that two fruit cars were to be loaded here and shipped East. The cars are being loaded today, and will be started Monday. Through the courtesy of W. H. Miller, of Oakland, who is purchasing the grapes and loading the cars, we have examined the cars and mode of packing, etc., and gleaned some facts of interest relative to the shipping of grapes to the East. The cars are in the main like ordinary freight cars. They are lined with thick paper, the paper upon the floor being albumenized—the object being to make the car as nearly air tight as possible. At the front of the car is a compartment which holds a ton of ice; and a fan, revolving 1,800 times a minute, is attached to the axle, and so arranged that air is forced over the ice and through a metallic cylinder some eight or ten inches in diameter, which extends the entire length of the car, and which is perforated with numerous holes, to allow the cold air to escape and permeate through the car. At the top of the ice compartment there is an open space for the air to escape as it becomes warm. The grapes are packed in 20 pound boxes, the car being completely filled. A car holds ten tons of grapes. One car goes to Chicago and one to St. Louis, Mr. Miller going with them to effect the sale. The freight on them is $900 per car.

PLACER.

Lincoln.—Cor. Stockton *Independent*, Oct. 19: Lincoln is surrounded by some tolerably good farming land, and a number of large sheep ranches, but the greater part of the land is not adapted to agriculture. The foothills are but a few miles away, however, and there are some very productive orchards and vineyards along that fertile and desirable belt of country lying between the granite mountains and the parched plains. Dr. Chandler's vineyard, producing this year 250 tons of raisin grapes from 40 acres of vines, of which we made mention a short time ago, is five miles from Linoln, in the foothills. The farming and pastoral interests about the town may some day make Lincoln an important shipping point.

SACRAMENTO.

Sherman Island Affairs.—Antiooh *Ledger*, Oct. 21: Spending a few hours last week on Sherman island, we were surprised and gratified at the improvements making and made, and the enconragement manifest over a large portion of the island in the agricultural and grazing capabilities of reclaimed tule land. The lower portion, as is well known, is given up to the floods and the tides for the time; but the portion above the main cross levee, includiug more than 6,000 acres, is yearly improving in prodnctiveness and enhanciug in value. The experiment of sowing reclaimed tule to alfalfa for hay and pasturage seems to have been a practical and capital one. It used to be thought too valuable, but most of the islanders now begin to think that their redemption and future wealth is to come throngh alfalfa, and, verily, we believe it. Nearly all of them have more or less acres in alfalfa, and are disposed from experiment to inorease the breadth. Some have abandoned wheat oalculations almost entirely, and talk but of hay, hogs, fat sheep and cattle, and gilt edged butter, all at the consumer's door. Mr. Ayer, who tried grain at a loss, has got his land down to alfalfa and now has a fine herd of milkers, that roll in the luxnriant green pasture and yield a rich return in delicious fresh butter, while all the highland fields are brown and dry, and dairies on such places give no profits. Forty-seven and a half cents per pound, wholesale, was received last week in San Francisco for his butter. Messrs. McCourtney have about 150 acres from which they mow three crops of hay each season, of about two and one-half tons to the acre for each cutting, giving as they say, a profit of about five dollars per ton for this season. Last year their profit was about nine dollars per ton, they then got $14 against $10 this season, owing to the great abundance of hay everywhere. They also showed us some beautiful Berkshire and Essex hogs, sleek, fat, and of large growth, which fed only upon the green alfalfa. Mr. Paul Boggs has his whole place of 500 acres in this pasture weed, and devotes all to hay, realizing abont the same yield and price as the Messrs. McCourtney. He has the good fortune of location in having a natnral canal through his land, so that the schooners come to his door for the hay. By means of sloughs and one or the other of the two rivers, all of them have easy and cheap facilities for getting prodnce to market.

SAN BERNARDINO.

Three Crops of Pears.—*Times*, Oct. 14: The most astonishing prolificness of fruit ever witnessed in this or any other climate, came to our notice this morning. It is that of a pear tree in the yard of Hon. Mr. Suverkrup, of this place, just in front of the court house. This tree is about 12 years in bearing; it has, as a very common thing, put in its second fully matnred crop of delicious pears every season, and has done so this year; and now on this 14th day of October, has on it the third crop, fully one-third grown; the season continuing favorable will doubtless matnre the fruit hanging in clusters npon the tree. We have eaten from the first aud second crop, and we shall apply for a share of the third. This wonderful production will, of course, be denounced as false and incredulous, but we vonch for the truth of it; any one oan have all their scruples removed by examining for themselves. Whether it is peculiar to the tree or climate, or both, is a question to he determined. Most likely both. We do not believe that the like could be produced in the Northern or Eastern States, or anywhere else.

SANTA BARBARA.

Guadalupe Items.—*Telegraph*, Oct. 21: From all we can learn, the potato blight has not seriously affected the potato crop of this valley. Some fields will no doubt not come anywhere near anticipation, but the amount of good potatoes marketed from this section this season will be very large. The harvesting of the grain and the drying np of the herbage has revealed huge fields of pnmpkins and squashes all over the valley. These vegetables always do well here.

SAN LUIS OBISPO.

Carp for Morro.—Sonoma *Democrat*, Oct. 21: J. J. McClellan is going with his son to San Luis Obispo county, where he has purchased a farm, near Morro rock, of 4,000 acres. One hundred and sixty acres of the land is said to be as rich as any on the Pacifio slope. Our old friend has cast his lines in pleasant places, as we know, for we have been there. Mr. McClellan has sent down a number of carp from Poppe's ponds, with whioh he intends to stock a natural lake on his farm. No doubt they will succeed well in that locality.

SANTA CRUZ.

Room for More Beets.—*Courier*, Oct. 21: On visiting the sngar factory at Soquel last Wednesday, we learned that the works would have to be shut down in ahout two weeks, on account of the scarcity of beets. It was expected that the mill would run for several months yet, but the yield of the saccharine roots has fallen short of the calculation, and hence the cessation of operations. The refining department will run for some two weeks thereafter, however. It is now the intention of the sugar company to buy all their beets next year, and they propose to pay $5 per ton for them. We are told by ranchers who have raised them that this price will pay very well for their production. About 8,000 or 9,000 tons will be needed to keep the factory busy for the season.

SONOMA.

A Premium for Young Ladies.—Petalnma *Argus*, Oct. 14: Hon. J. McM. Shafter, who is a life member of our District agricultural society, and one of its most liberal patrons, yesterday morning authorized the publication of this statement: "I will give, at the next fair, for the best five pounds of wheat bread, the best five pounds of rye and corn bread, the best ten pounds of sponge cake, the best ten pounds of fruit cake, and the best ten pounds of pound cake, a piece of plate costing not less than $75, and in my disoretion, $25 additional as second and third prizes; satisfactory evidenoe to he furnished under direction of the association that the bread and cake are the products of the skill and labor of any lady not over 20 years of age, and that the baking has been done in a common stove or oven in ordinary use in a family."

Grass.—*Democrat*, Oct. 21: The fine young grass is springing up all over the face of the earth in this vicinity, and in a few days the hills and valleys will he carpeted with the richest green. What a contrast is this with the Eastern States! Their winter has begun and for the next five or six months frosts and freezes and snows will be their heritage.

Potatoes.—New potatoes are arriving in Petaluma in small quantities, about 700 sacks having been received up to this time. The digging season has not yet fairly commenced, but Chinamen who are engaged for the purpose are arriving from San Francisco daily, and in a few days several hundred of them will be at work hereabouts. Prices are low at present, ranging from 75 to 90 cents per hnndred pounds.

SUTTER.

Fatality Among Horses.—*Banner*, Sept. 21: W. P. Harkey, sheriff of this county, informs us that he has lost within the last three weeks several head of fine horses and mules on his ranch near town. His total loss of stock amounts in the aggregate to $3,000. The animals seem to suffer from disease of the lungs. Harkey has one or more in town under treatment.

Farmers' Warehouse.—This immense structure is full to overflowing with choice wheat. Its construction shows that the farmers of this county are beginning to fully realize the importance of Ynba City as a shipping point. The west bank of the Feather being so high, it is peculiarly adapted to the location of warehouses above the highest water. The enterprise having been crowned by such complete success, we shall next year doubtless see similar structnres erected. Stored in brick buildings along the river bank, the wheat is always in market; the insurance is light, and if the farmer wishes to borrow money he can always put up "number one collateral." The immense piles of wheat along the Feather and Sacramento rivers will not be benefited by its little wetting, though they may not be seriously injured. Those who have wheat out will say: "O, this rain won't hurt it," but—from what "we know about farming"—after wheat is threshed it should never be wet till it is done to it by the bakers. In the market of the world California stands without a rival in quality of her "king of cereals," and our farmers cannot afford to do, or allow to be done, that which will lower their proud prominence in that regard.

TUOLUMNE.

Drying Fruit.—Stockton *Independent*, Oct. 21: John Periera, a horticulturist of Jamestown, Tuolumne county, has 125 acres of vineyard and orchard, and has been engaged in fruit raising for a number of years, consequently his experience is valuable for others who have not been so long in the business to profit by. It is the part of a wise man to avail himself of the experiments, successes and failures of his neighbors, rather than to dearly purchase his own experience. He informs us that he has adopted a plan of drying his fruit, under cover for the greater portion of the time, putting them in the snn for only the first day or two. He places the frnit on trays about three and a half feet square, made of rough shakes. By this method they are easily moved, and after exposure to the sun for a day or two, the trays are carried into large open sheds, where air may circulate freely through them. He considers that by this plan the fruit retains a muoh clearer, better color, and is entirely freed from the objectionable baking that the ordinary processes give it. Raisins by this means of drying are tender skinned, clear colored and highly marketable. The process is a simple one, and certainly saves the fruit from the danger of damage by unseasonable rains.

VENTURA.

Drive Carefully.—*Free Press*, Oct. 21: While driving a band of fat hogs to Hueneme from the Patterson ranch, last Monday, Mr. Thompson was called away for a half hour or more, and left some boys to keep the hogs on a move. Being inexperienced in the business, and the day being warm, they pushed them along too fast and a dozen of the finest and fattest ones became overheated and died by the roadside. They would have sold for over $25 per head, and prove a heavy loss. The fat will, however, be mostly saved and converted into lard oil and soap grease.

Large Farming.—We are informed that farming will be carried on on a very large scale the coming season by some of the leading farmers in this county. Mr. J. K. Gries has leased 1,800 acres, which he will cultivate in addition to his own large farm. Buttner & Benchley will farm 800 acres and many others in proportion. Rice & Bell are among the largest farmers. Some are already busy dry-plowing and summer-fallowing, and great preparations are making to secure the full benefit of the early rains.

YUBA.

Cashmere Goats.—Marysville *Appeal:* T. H. Harlan, of Colusa county, passed through town yesterday with a splendid drove of Cashmere goats. The flock is estimated to shear from two to five pounds each, and the wool is quoted in market at 30 to 85 cents per pound, according to luster, firmness and length of staple. Mr. Harlan has a large flock of goats on his ranch in Colusa, and this addition, purchased last week in El Dorado county, will increase the number to 3,000 head. Mr. Harlan proposes to make an exhibit in different grades of his goats at the Northern Distriot fair, including two or three thoroughbred billies. The goats, as they passed through the city, attracted considerable attention, and their long and lustrous wool was specially envied by all the ladies.

Judge Sawyer, of the United States Court, has directed that hereafter declarations of intention to become a citizen shall be made in open court. Judge Dwinelle, of the Fifteenth District Court, has made a similar order.



The New Grave.

[Written for the PRESS by PHILMORE.]

While visiting one of our city cemeteries recently the author of the following lines discovered a new made grave completely covered with choice flowers. No less than 18 beautiful bouquets, half of which contained camellias, with three wreaths of tuberoses and choice buds, were placed upon it. Upon inquiring we ascertained that a young lady was buried there the day before, which suggested the following lines:

What worth lies hurled here, beneath this mound of sand,
Bedecked with flowers fresh plucked, the lily and the rose,
Camellias pure and waxen, but scentless, cold as Arctic snows,
Or marble flowers that grow beneath the sculptor's hand?

Such are the emblems of human life; time shows
Even marble flowers must fade by his keen breath.
There is beauty in the spring of life, and so in death
All beauty fades not, but like sunset glows.

Here, hidden from our sight, is clay inanimate,
Once warm and blushing as the fairest flower.
The hungry worms demand their rightful dower,
And gorge themselves and die, insatiate.

A lonesome feast, attended well withal.
Strange drap'ries deck the board, and often stirred,
Not by the summer's gentle breath or wing of bird;
But the busy throng heeds not, nor the dead thralls.

The silken cerements trodden in the dust,
That wrapt so late that form of heavenly mold;
The jewelled fingers robbed of hands of precious gold;
All food for greedy, crawling worms of lust.

Such was the end of her whose grave is made
In the sand where flowers shall deck the mound,
Placed by love's hand to shed their perfume round,
When worth and beauty are together laid.

Woodside Papers.—No. 7.

[Written for the RURAL PRESS by J. E. JAMESON.]

"Well, Mrs. Payson, I've come for another dose," said Mattie Storrs, entering the little sitting-room where Mrs. Payson was singing and sewing, and sewing and singing, her needle keeping time to the musical rhyme of the old, old song she was singing; "I went straight to the store, the next day after I was here, and bought a yard of coarse white flannel, and you have no idea how much good cold water and friction have done. Papa says you ought to give up housekeeping and hang out a professional shingle. He says he will warrant you more calls than many physicians have when they are getting up a practice. If you will believe it, I have actually made some graham bread, the first that ever put in an appearance in our house; and I have done—oh! ever so many things. When I get as strong as a moose, I may hire out haying. Don't Mr. Payson want a likely individual to load and mow away?"

"I will ask him," said Mrs. Payson; "but the sun has a saucy trick of looking very steadily at hay-makers, and the sun taus one fearfully, you know."

"Oh, don't quote my foolish speeches! I am not so much afraid of the sun as I was. This is a day of reform. I vote for the Payson reform."

"I fear I shall have to remain a skeptic on the subject of your reform, unless you leave off your corsets," returned Mrs. Payson.

"Oh, don't say a word! I have sent for a dress-reform suit," cried Mattie.

"Well, well, my dear, you are doing bravely. I wish all reforms could be pushed so vigorously. I would like to have a nice long talk, but I perceive I am about to have a caller. Look, if you wish to see

A First-Class Specimen of a Discouraged Woman.

I wish I could help her, but what can one do for such a person? That she is not a 'born housekeeper' is a self-evident fact, but if, by precept and example, one could help her out of the 'slough of despond' into which she has fallen, it would be a great blessing to her and her family. The trouble is to make people see the depth of wickedness in which they live. Not what the world calls wickedness—Mrs Towne is what the world would call a good woman—but wickedness because they habitually ruin health and happiness when they have no good excuse for so doing. 'I wot that through ignorance' they do it; but they have no right to be ignorant in this part of the world. There is one good trait about Mrs. Eben Towne, she will not get provoked a bit if one talks ever so sharp to her. Her husband has been quite a likely man, but I suppose it is a wonder that he is alive after eating such food as she cooks, for 10 years. I have taught her how to make bread as Aunt Keziah makes it. But here she is."

Miss Storrs agreed with Mrs. Payson that Mrs. Towne was a discouraged looking woman, as she sidled into the room and sat down upon the edge of a chair.

A large-figured, homely, plain-waisted print dress sat loosly upon her thin form, unadorned by collar, ribbon, belt or ruffle. Her hair was drawn back from her face, and was securely twisted into a knot about as large as a small-sized English walnut, at the back of her head, where it was kept in place by a huge, light-colored hair pin. Her feet were encased in a pair of thick calf-skin shoes, tied with strips of leather, and very much "run over" at the side. Her face would not have been called very plain were it not for its dismal expression, but that made it almost distressing.

"W-h-e-w! Mrs. Towne," said Mrs. Payson, coaxing her plump shoulders into a shiver. "You look as blue as a whetstone. What's the trouble? Has little Ebenezer broken his arm, or Samuel got the whooping cough?"

"No, no, Mrs. Payson, it's worse than that. Eben came home drunk last night, and I'm clean discouraged."

"Oh, Mrs. Towne!" cried Mrs. Payson, her voice full of grief, "I am so sorry to hear that. I had feared that he was taking a little liquor sometimes, but had hoped that he would resist temptation. Where is he to-day?"

"Away to work; I know he felt sorry for it this morning," returned Mrs. Towne.

Mrs. Payson sat in silence for some moments, then said slowly, "Do not be discouraged. Just try with all your might to keep him away from all those miserable places where liquor is sold. The habit is not strong yet, and there is hope for him. I will tell you what it is, Mrs. Towne, you must make home more pleasant for your husband. Contrive nice little dishes for his breakfasts and dinners and suppers. Fix yourself up and try to look as gay and happy as you did in the days when he came courting. Then he won't be so apt to go into those saloons when people ask him to. There's nothing like a pleasant home and good, well cooked food to make a man contented. For instance, what did you have for tea last evening and for breakfast this morning?"

"Oh, for supper, bread and butter, gingerbread and cold meat. But I didn't let the bread stay in the oven long enough, and 'twas pretty raw; and, now I think of it, the gingerbread was scorched and the corned beef was so salt that I couldn't eat it. I believe Eben didn't eat much."

"And, more likely than not, he felt faint when he was down town and went into some saloon to get something nice to eat; and there are always enough to persuade him to drink. Now let me guess what you had for breakfast. I guess it was salt pork and potatoes."

"Yes, and gingerbread," said Mrs. Towne.

Mrs. Payson groaned, very softly, and said, "Are you not intending to make some more bread to-morrow, as the other is so poor?"

"W-a-ll, I s'pose I might, though it seems a great pity to waste what I have on hand."

"Waste it!" exclaimed Mrs. Payson, indignantly. "Which is the most valuable, health or a little dough? If any part of it is good, as it often is at the top or sides when not done in the middle, cut off all that is good, keep it until the day after to-morrow morning, then toast it in the oven until it is a light brown. Have ready a gravy made of a pint of milk (you can use a third water if you have not enough milk), a small teaspoonful of salt, a heaping spoonful of butter, thickened with a spoonful of flour, stirred smoothly in three or four of water. Dip each piece of bread in hot water, then lay it right in your spider of gravy (which you can set right on your kitchen table, with a kettle-rack or a folded paper under it). Have a covered dish warmed; lay the slices in, turn the rest of the gravy over them, and you have a nice toast, especially if you have some good apple sauce to eat with it. I like apple sauce with all kinds of toast."

"I'll try to remember all that. I'm sure I never made a toast that way," said Mrs. Towne.

"I find it very handy, when I am in a hurry, to take clear milk, butter, and half the quantity of salt, and dip my bread, not toasted as hard, right into this without stopping to thicken it. Have some of this gravy left to pour over the bread after it is placed in a dish, and you will find it very good. But, after all, our favorite is the 'German toast.' I do not remember whether I have ever told you how to make it; but if I have, Dr. Johnson said that 'Mankind did not need so much instructing as reminding,' so I will remind you of it."

"I'm pretty sure you never told me. I'm getting toasted up so famously that I think I'll manage several breakfasts," returned Mrs. Towne, almost inclined to joke.

"Well, for 'German toast,' you must beat one egg, add an even teaspoonful of salt, and a generous cup of milk. Do not toast your bread, but dip in this mixture and fry a light brown, on a well-buttered griddle. This quantity of milk and egg is sufficient for my family of five; each person adding butter to suit their taste. But about to-morrow morning. For your bread, you will take a cake of yeast (I use the 'Surprise' now, as my grocer said the 'Nationals' were getting *cheaty*), and stir it in a pint of warm water, and flour enough to make a batter of medium thickness. This you will do at half past five or six o'clock. Now, when you mix up your bread, say at nine or half-past, take four spoonfuls of the yeast, put them in one pint of warm milk with a teaspoonful of salt and a spoonful of melted butter. Stir in flour enough to make a thin batter. By this, I mean so thin that if you should put it on a hot griddle it would spread itself out thin. Set in as warm a place as you do your bread. I use the oven in summer. In the morning, add one-half teaspoonful of soda, and one well-beaten egg. No more flour is required. Fry as you would any griddle cakes. I use nice fat from baked beef, when I can get it, to grease the iron with. The batter is very accommodating. I have mixed it with cold milk, and not put in the batter until morning, when I did not want to build a fire at night. But you will see, when you try them, that they are the best cakes of the kind that you ever ate. A friend of mine made up the recipe from one for waffles. I melt maple sugar to eat with them. If you wish something hearty besides these, boil some potatoes to-night, if you build up a fire, and they will be all ready in the morning to chop up for a hash with the corned beef that is too salt. Freshen it, if necessary, by boiling a little and turning off the water. Chop it fine, and then stir well with the potato. I always put in a teaspoonful of butter, or more, and a moment or two before I take it from the fire I add three or four spoonfuls of cream or milk.

"Suppose you have a dinner like ours. The boys are going fishing and yours can go too. If they do not catch enough for dinner, I shall pick up some salt cod fish, in water 15 or 20 minutes before I want to cook it, then turn off the water (as it is apt to be too salt if I do not,) and cook it a few moments in milk with butter, perhaps a spoonful thickened with flour. I pour this over the potatoes after they are pared and mashed. But I hope the boys will have good success, for I prefer fresh fish—should buy fresh mackerel if I could get them, they are so good when fried a light brown in Indian meal. I shall have a johnny cake and some corn starch pudding. I use the recipe for blanc mange, which is the first of the rules on my paper of corn starch. I sometimes make enough to turn into custard cups, cool and turn into saucers with milk and sugar for tea, beside that I use for dinner. This I eat with milk and sugar, or make a sauce by mixing enough sugar with a spoonful of melted butter to make it pretty dry, flavor with lemon, and just before I want to use it six or eight spoonfuls of cream or milk. I do not think that will be an extravagant dinner. I do not think one needs to prepare a great variety. The point is to have everything cooked well. For tea, you can have some good fresh bread, nice butter and strawberries, they are so plenty now that the children could pick enough in a short time. And then suppose you make some ginger snaps and some cake. That will be a supper fit for a king. I have the recipes: For ginger snaps, take one cup of molasses boiled, two spoonfuls butter, one teaspoonful soda, same of salt. Mix hard, roll thin and bake quick. Then, for what I call good cup cake, take two eggs, one cup sugar, one-half cup butter, one-half cup sweet milk, one teaspoon cream of tartar, one half teaspoon soda, two cups flour. A half cup of raisins, stoned and chopped, makes it very much nicer. I use the same recipe for Washington pie. I would give more for a good Washington pie than for any other kind of cake or pie. The jelly makes it so nice and moist (unless the cake is as dry as a contribution box to begin with; some people make them so, but I don't see why they should). Your currants are just about right for jelly now; I shall make mine to-morrow. By the way, I've learned something new about making jelly. I have always had a great time trying mine to see when it had boiled enough. It makes a great deal of trouble, because the jelly keeps on boiling while you have some out cooling, and you can never seem to tell just how it is; and sometimes it will go back and when you open the glasses it will be too thin. But a dear friend of mine—an old hand at putting up fruit—tells me to put fruit juice and sugar, pint for pint (only she puts in a little more sugar, say a cupful for two quarts), into a porcelain kettle, or a new tin pan, let the mixture commence to boil, then look at the clock and let it boil *just seven minutes*, stirring a little to prevent it from sticking; take it from the fire and when about cool (or cool enough so that it will not crack the glass) put it in tumblers or whatever you have for it, and when it is cold cover the dishes with paper, pasting it tightly around the edge. I cut a piece of white paper to fit the top of the jelly, cover the wrong side with mucilage or the beaten white of an egg, and lay it right on, before putting on the outer cover. This prevents the slight mold which sometimes gathers on the top. She says this rule will answer for all kinds of jelly. I think it is so nice in winter when fruit is scarce. When I am making the kind of cake I just spoke about, I have the cake a little smaller, and take enough of the dough to make two very thin cakes for the pie. It is but little work. Oh! I forgot to say that I use white granulated sugar for the cake and jelly. It is as cheap as any you can buy, I think."

"But how can I fuss with these things when I feel so miserable," groaned Mrs. Towne.

"It takes no longer to make good food than poor, and I do not think you need feel so miserable; I think you would feel better this moment if you had on a pretty, small-figured, print wrapper, a linen collar, fastened with—but, dearie me! here it is almost dinner time. Come up some day and I will finish, if you wish me to."

Great Talkers.

Verily their name is legion—and no wonder. It is very hard work to keep still and listen while another recounts his plans, relates his spicy anecdotes, or recounts thrilling adventures, without wanting to have a finger in the pie oneself. We are apt also to wax indignant and impatient when he monopolizes the time we should have to ourselves. Does he think nothing ever happened to anybody but himself? Has no one else had hair-breadth escapes? And we would just like to tell him what happened that dark and stormy night when we came up the Channel; but it is no use. In a ceaseless monotone he spins out the never-ending web of talk, until forbearance ceases to be a virtue, and yet we cannot get away.

Of such a nature was old Mr. Jonathan Morse. An inveterate talker, who clung to a listener like death to a drowning man, and from whom it was almost impossible to escape. His wife and children had grown so used to this constant drip, drip, that well might wear the solid rock, that they no longer minded it. But strangers did not fare so well. Many a man had essayed to do the agreeable to the old gentleman for the sake of his handsome daughters, and fled in dismay from the terrible infliction of that remorseless tongue.

At last there came to the house one afternoon a suitor for the hand of the youngest girl. He was a handsome stripling, blue-eyed and delicate in frame, yet with a spirit strong to do and dare. He was presented to papa, whom he was, of course, desirous to please. A man who would listen with patience was a prize too rare not to be secured at once; and Mr. Jonathan Morse lost no time. The old gentleman gave him a chair, and drew beside him another for himself—and then he talked. On and on, one steadily flowing stream whose current moved on steadily over every obstacle. The poor boy fidgeted in vain. There was no hope. The sun set and the evening waned apace. Nine, ten, eleven, and one by one the family had slipped away, till at last the two were left alone. Talk, talk, talk, and the slender form of the youth cowered and shrank under the resistless torrent.

Of that night's work there is no record, but when the morning's sun shone brightly in at the window the next day, the first descending members of the family beheld a strange sight. Upon the floor lay the motionless form of the boy, sound asleep; while beside him, his voice grown faint and husky from long exertion, knelt the remorseless old man whispering in the ears of the sleeping youth.—*Philadelphia Post.*

THE LAMAS AT THEIR DEVOTIONS.—About 80 of them were squatted on the floor of a large room, each having before him a little desk, on which lay a pile of manuscript sheets written on a kind of paper resembling parchment, from which they were reading in a low tone so intently that no one looked up at the entrance of the visitors. In the midst of their devotions a servitor entered, bearing a vessel resembling a huge tea-pot. Each lama, without interrupting his prayers, took from his bosom a small wooden platter, into which the contents of the vessel were poured. It was composed of tea leaves, butter, salt and beans, all boiled together into a soup. This they drank, still muttering their prayers, and then licking the platters clean, they replaced them in their bosoms and went on reading. This appears to be less a regular meal than a kind of sacrament; at least, the well-fed aspects of the elder brethren indicated that they were not strangers to better fare than tea soup. —*Harper's Magazine.*

A BOY'S WAY OF STATING THINGS.—A boy's way of stating things, though often inelegant, is generally nervous. Example: A lad at Easton, Pennsylvania, entered a drug store, bottle in hand, and said he wanted ten cents' worth of "armakymony." The druggist told him to repeat the word, and said, "Don't you mean arnica, or ammonia?"

"I dunno," was the reply.

"What is it for?" asks druggist.

"Can't tell," said boy, starting slowly out. When near the door a bright idea illumined him, and he turned and asked druggist: "If your wife hit you on the head with a chair leg, which of them medicines would you git to take the swellin' down?"

"Arnica."

"Then fill her in ten cents' worth," replied the boy; and he gazed lovingly at a big stick of licorice as the arnica was being bottled.—*Harper's Magazine.*

TEMPER.—A hasty temper often leads young men into great mistakes. It frequently causes them to misunderstand an employer's intention, and to resent as an insult what was meant only as a just rebuke. In this way a young man sometimes loses a valuable situation, and has to begin the world over again. And, unfortunately, his hasty temper does not permit him to learn wisdom from his experience. On the contrary, it too often leads him again into the same mistake, and he is again set adrift, His temper grows worse and worse until at last he becomes unbearable, and nobody will long keep him in employment. On the other hand, a good temper and an obliging disposition, when combined with honesty and industry, are invaluable qualities in every one who has his way to make in the world.

The Price of School Books.

It is astonishing to note how the prices of school books have increased since 1861. It would seem the supply is hardly equal to the demand when one takes the pains to compare the prices of to-day with those in vogue 15 years ago. The book publisher who is fortunate enough to obtain a contract to supply such a city as Cincinnati with school books these days may congratulate himself on having a good thing. The high price of school books have prevented many poor, but honest, people from sending their children to school. The school boards have authority to furnish the necessary books to children whose parents are unable to provide them, but the latter are too sensitive and proud, though poor, to ask such favors. We have before us a list of prices at which books sold in 1861, and as a matter of interest we compare these rates with those of to-day. The books here mentioned were used in this city and vicinity previous to 1861.

McGuffey's Speller in 1861 sold for 80 cents per dozen; to-day the price is $1.75. McGuffey's First Reader in 1861 also sold for 80 cents per dozen, but to-day it retails at $1.75. We give a schedule of prices of other important school books: McGuffey's Second Reader sold for 80 cents per dozen in 1861; in 1876 the rate charged is $3.40. The Third Reader sold at $2.50 per dozen in 1861; to-day the price is $4.80. Since 1861 the price of McGuffey's Fourth Reader has risen from $2.88 per dozen to $5 75; the Fifth Reader from $5 per dozen to $9.10; the Sixth Reader from $6.50 to $11. The prices of other school books have increased in proportion. For instance, Ray's Arithmetic, Part First, used to retail for $1 per dozen, now it brings $2.25; Ray's Arithmetic, Part Second, used to sell at $1.80 per dozen, now $3 40 is demanded, and Ray's Third Book is selling to-day at $6.50, against $3.50 in 1861.

A comparison of the prices of other books needed in the schools shows that the prices have been proportionately increased since the war began. That there is a greater demand for them since the war we have no doubt, as millions of people who did not attend school when the war progressed have been enabled to attend since. Free schools dot every village and city and suburb in almost the entire country. But why the book-sellers should keep the prices of their publications up to such a high standard now, when the price of labor of all kinds has been reduced, we can hardly understand. The school authorities in every State and city can remedy the evil if they feel so disposed.—*Cincinnati Enquirer*.

The Book Fiend.

A book agent recently met with a serious accident in the suburbs of La Crosse. He was walking along the railroad when a freight train came along. The unfortunate man was struck by the engine and knocked directly across the track. Some 53 cars passed over him. He was tumbled down a bank 800 feet high, over stones and stumps, and just as he got to the edge of the river he struck against a pile-driver that was at work, and, his head lying on top of the pile for a minute or two, the ponderous hammer descended, striking him on the cheek, bruising his face somewhat.

The shock rolled him into the river just as an up-river packet was passing, and by some mishap the unfortunate man was entangled in one of the wheels, whirled round and round for an hour and a half before he was discovered and released. He was picked up nearly senseless and removed to the cabin, where his wants were supplied. After he had eaten a hearty meal he was approached by the captain, who asked:

"Is there anything you would like to have?"

"No, no," replied the canvasser, "there is nothing but this—"

"What! what!" ejaculated the captain, "what is it?"

The book agent smiled sweetly as he produced a subscription list and said:

"Subscribe for that beautiful book entitled, 'The Poisoned Gum Drop, or The Candy Woman's Revenge,' by the author of 'Jones, the Button-Hole Maker.'"

Choosing a Wife.—Never marry a woman merely because she has a handsome face or a well turned figure; for we soon become insensible to angelic forms and faces. If her countenance has life and intelligence, if her walk and carriage are modest and lady-like, and if the whole appearance indicate she has a mind, heart and soul, why she is worth all the simpering, mincing, flirting, affected misses that ever brought good looks as their only marriage dower. If the fair one you are addressing is rich in houses, lands, bank stock or railway shares, her worldly gear should not prove an insurmonntable objection; but if she is poor like yourself, so much the better. There is nothing like a young couple, about the age of 20, starting in life with fond hearts, clear heads, easy consciences and empty pockets. You have something to hope for, to work for, to live for! Your early struggles with the crosses of this life will only bind you the closer to your young, ardent and loving wife.

The latest Centennial phase is that of an old Indiana farmer, who has seven young daughters. He offers a Centennial plow to every young man who marries one of them. Who'll take a share?



Graphic Centennial Sketches—America Discovering Columbus.

Young Folks' Column.

The Sad Story of Blobbs and His Pullet.

In a tiny country villa lived our Blobbs, hut all alone;
Never wife or chubby children this staid bachelor had known.
Yet—for hearts *must* cling to something—he had made himself a pet
Of a little snow-white pullet, with her wings just tipped with jet.
Daily feeding and caressing, these had won the pullet's heart;
Following close her master's footsteps, seldom they were far apart;
And his love grew deeper, stronger, with the passing of each day—
"Wiser far than any woman," wicked Blobbs was wont to say.
Near by rose a wondrous structure—architects their brains had racked—
Cross between a Chinese temple and a cruet-stand, in fact.
This the pretty pullet's dwelling; here she hastened every night;
Perched on high, became a *rooster* till the dawning of the light.
One sad day a Yankee peddler, glib, persuading, passing by,
Gazed at Blobbs and that poor pullet with a calculating eye.
From his wagon's deep recesses drew out, smiling wickedly,
"Johnson's Patent Hen Persuader;" then to guileless Blobbs said he:
"Here's a marvellous invention! In this box you see a nest;
Hens at once will lay an egg here, lured to do their very best.
Then behold! this sliding bottom lets the egg drop out of view,
And the hen, somewhat bewildered, lays at once egg number two!"
'Twould be useless to repeat all that this wily peddler said;
This suffices. Blobbs, unwary, by his specious tongue misled,
Bought the "Patent Hen Persuader," set his snow-white pullet on,
Locked them both within the hen house ere he went to town that morn.
Business then engrossed him fully, till with num'rous cares beset,
Who can wonder that the pullet and her nest he should forget?
Nothing all day to remind him; but returning late at night,
Flashed a sudden recollection, and his cheek grew pale with fright.
Rushing madly from the station, straight he sought the hen-house door.
Called his pet in tones entreating. Ah! she'll never answer more!
Full of gloomiest forebodings, in he dashes; finds the nest
Overflowing with its treasures—yes, she's done her level best.
Forty-seven eggs! and near them head and tail and wings still lay,
For the poor ambitious pullet thus had laid herself away!

—*Harper's Magazine.*

A Dolls' Fair.

In the editorial department of the *Wide Awake* for October a plan is suggested—which, furthermore, is to be carried out—that appeals strongly not only to the hearts of the little girls who are called upon to assist in it, but to those of mothers everywhere. From two to eight years girls live for their dolls. They dress them, pet them and care for them with the same pleasure and anxiety that twenty years later they feel in watching the upcoming of their real children. If they cannot possess wax dolls or china, clothespins dressed up, or folded towels, or pillows, or rolls of rags, are made to do duty, and the amount of happiness realized from these humble makeshifts by the children of the poor words cannot tell. *Wide Awake* suggests a dolls' fair for the benefit of poor and sick children. It says, "In Boston, in New York, in Chicago and other cities, there are hospitals where fifty and more poor children are taken care of. They lie in their little cots, some with their limbs drawn up and fastened with weights, some suffering with fevers, some whose eyes are weak and painful, and many of these have no homes but the street, and no friends but the kind women who visit them. To them Christmas is scarcely known. But this year we shall try to make it, by your help, a happy event in the lives of many of these little sufferers. We propose a dolls' fair, to be held in Boston the first part of December, and we want each little girl who reads this to dress a doll and send it to us to be exhibited in this fair, which will be held in a public room in Boston. After these dolls have been exhibited, a committee of ladies will decide upon the merits of each child's work, and award ten prizes to the makers of the ten best made sets of clothing there exhibited. After the prizes have been awarded, all the dolls will be sent to the sick children in hospitals. In dressing these dolls the widest liberty is allowed. Some might be dressed in the style of Quaker ladies, Martha Washingtons, Swiss peasants, Roman girls, and some as waiting-maids, cooks, etc. The prizes will be given, not for handsome dresses, but for the best made clothing." It is expressly stipulated that every set of clothing must be made entirely, both cut and sewed, by the girl who exhibits it, and must be accompanied by a certificate from the parent or teacher of the child, that she has worked entirely alone. Each exhibitor must send, on a card, her name, age and postoffice address. The doll is to be dressed and sent in a box, express charges or postage prepaid, to the office of *Wide Awake*, Boston, before the first day of December, 1876. The idea is an original one, and ought to stir up general enthusiasm among the children the country over. Next month the boys are to be told how they can assist in the good work, not exactly in the line of doll-making, but in doing something for the pleasure of sick little boys. *Boston Transcript.*

Good Health.

Drainage and Disease.

The bearing of geology upon health is not very evident at first sight, but the New York *Tribune* says it was fully expounded by Mr. James T. Gardner at the meeting in Boston last week of the American health association. Many diseases arise from defective drainage, and this in turn is frequently a result of the structure of the rocks below. A thorough survey of the State will furnish the facts in regard to the natural drainage of each portion of it, and it will then be in order to discuss the claims of different localities in regard to superior salubrity. Meanwhile it is well to remember that the whole tendency of recent investigations proves that the controlling cause of our most fatal diseases is to be found in local conditions. Powerful as are climatic influences in modifying forms of life, science teaches that death dwells not so often in the "viewless winds," which man can neither direct or restrain, as in the earth beneath his feet. Fourteen years ago Dr. Henry I. Bowditch demonstrated before the State medical society that certain conditions of the soil slew annually, in Massachusetts, a thousand of her citizens by consumption alone. No plan for artificial drainage can be completely successful unless based on a thorough comprehension of the natural drainage system of the area under treatment. The region above the Palisades on the Hudson furnishes excellent illustration of these statements. The plateau fronts the river eastward with a bluff 300 feet high, and westward slopes gently to the Hackensack valley, its altitude and proximity to the sea both tending to temper the summer climate. All topographical conditions of unusual health seem here present, and yet malarial diseases abound. The reason for this will probably be found in the configuration of the rock. The dense basalt underlying the thin soil of the plateau absorbs almost no water. If the rock were either fissured or porous, the hight of the plateau would insure perfect underdraining; but as it is, we have probably on the Palisades topographical conditions favoring health, while the underlying structure is the governing cause of prevailing diseases. In contrast, consider the formation of the Helderberg plateau, lying also near the Hudson river. An escarpment 1,000 feet high bounds, on the eastern side, the table-land, composed of horizontal limestone resting on shales. Mr. Gardner recently examined the natural drainage system of this elevated region. From the more level parts water does not pass off by surface streams. Low undulations divide these areas into many separate basins, each draining toward its own center, where a funnel-shaped opening in limestone receives the disappearing flow, whose future course is subterranean. The plateau's elevation insures that these waters sink at once many hundred feet, or escape in springs along the cliffs. But this same Helderberg limestone, under different topographical conditions, has proved one of the most powerful producers of disease. When cholera prevailed in this country the mortality at Sandusky was excessive, and some observers hastened to the conclusion that limestone regions were especially liable to the terrible scourge. The truth, as explained by the State geologist of New York, Prof. James Hall, appears to have been this: Sandusky is indeed underlaid by Helderberg limestone, through whose many open fissures much foul surface water of the city easily and certainly found its way downward, but as the streets have an elevation of only 30 or 40 feet above the lake, the drainage sank this small distance and there remained, while its poisonous gases rose continually through the same open fissures by which the water descended.

Domestic Economy.

Hints for Young Housekeepers.

A lady of long experience as mistress of a house, sends the following excellent hints to the New York *Tribune:*

I have been a housekeeper for a score of years, and have learned a good many little things by experience, a knowledge of which may be of use to those who have but recently taken charge of a house of their own. In the fall, when I go over my chests and trunks and closets, to take out fall and winter clothing and put away that which has been worn during the summer, I am careful to see that all my material is put in one large box. All rolls and remnants of woolen I have in a bag by themselves, all bits of new calico in another, scraps of new muslin in still another. My worn linen is rolled up by itself, in readiness for use if bandages are required; my worn muslin likewise is in a parcel by itself. All these, with what new supplies I may have in the shape of flannel, muslin, cloths, calicoes, I keep in a chest by themselves. Then I have a trunk or drawer in which I lay such garments as are cut out and ready for the needle or the machine. In this drawer I keep my thread carefully covered in a box, as the air makes it tender; my needles, tapes, buttons, and everything needed for sewing in the same place. In this way I never have to spend any time in hunting up what I want to use. My patterns are all in a bag by themselves, the boys' patterns in separate parcels, and the girls' the same. I have a bandbox in which are put away flowers and ribbons and velvets which may still be of service. On the inside of each closet door in the chambers is fastened a shoe bag, so that shoes are never lying around the floor. These various little contrivances I have found very useful in enabling me to put my hand at once on whatever may be required for family convenience, without the trouble of hunting it up.

A Cheap Cake.

A lady gives a recipe for a cheap cake which she hopes her sisters will not be afraid to try because it *is* cheap, as she says it keeps good:

One cup of sugar, three tablespoons butter, three-fourths cup of sweet milk, one heaped cup of flour, one and one-half teaspoons baking powder; flavor to suit. A little pinch of salt improves it for some. This can be baked in a loaf or on jelly tins. If on jelly tins, three are sufficient, and it can be put together with jelly, cocoanut, chocolate, frosting or cream. To put it together with cocoanut: Make a frosting with the whites of two eggs and pulverized sugar, not beating the egg at all, for if you do it will crumble off when cut. Frost each layer, and sprinkle grated cocoanut over it, and then put together in one cake. To put together with chocolate, add three tablespoons grated chocolate to the frosting, and stir all well together, then put on as any frosting, putting one layer above the other. To make a cream to put the layers together with, which is most excellent, take two-thirds pint sweet milk and put on the stove to boil; beat up one egg, five tablespoons sugar, and one tablespoon corn starch, add a little salt and one teaspoon butter, and boil all together, stirring constantly till very thick; when partly cold, flavor with vanilla or lemon, about one-half teaspoonful, and put between the layers. Frosting the top layer of cake improves the appearance. This cream, or custard, as some call it, makes a delicious pie with only a bottom crust. Bake the crust first, however, "picking" it well all over with a fork; when done, pour in the custard, and frost over with the white of an egg beaten to a froth, with a little pulverized sugar added; then put back in the oven and brown the top. To make frosting that will not crumble off, never beat the egg, but stir thick white pulverized sugar only.

Uses for Grapes.

Grape Butter.—The *Farm Journal* says: Cook grapes until the skins are tender, then rub through a colander fine enough to retain the seeds. To each pint of the pulp add one-half pound sugar, or more if you wish the butter firmer and richer. Boil down with great care, to prevent burning, to the desired consistency, adding spices if liked. The natural flavor of the grape is excellent.

Pickles, etc.—We give also directions for sweet pickles of grapes, which are fine: Vinegar and sugar in the proportion of three pounds of sugar to one quart of vinegar. Scald with spices to suit taste, and pour over grapes in nice bunches, cold.

Grapes make an excellent ketchup, prepared as for butter, and then cooked with spices, sugar and vinegar to suit the taste.

For jelly, use grapes before they are quite ripe. A beautiful clear jelly is made by squeezing the juice from the fruit when quite green, then clarify with white of egg, boiling and skimming carefully, and then add to the boiling juice dry sugar in the proportion of one pound to a pint of the juice. Boil 15 minutes and put in glasses.

Graham Griddle Cakes.—Into one pint of Graham flour and half a pint of Indian meal, mix thoroughly two teaspoonsful of cream yeast and half a teaspoonful of salt; beat up well one egg and mix with one pint of cold water, into which mix thoroughly the flour as prepared, and fry at once.

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Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, October 28, 1876.

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The Week.

The war and the rain are again topics for comment. The speed with which the Russian bear was prone to quench his thirst at the Bosphorus was not so great as the reports a week ago indicated. Still diplomacy sheathes the sword, and there is a chance that the blows may never come. While the conflict is uncertain, the commercial excitement has partly died away and the situation is one of anxious waiting for disclosures. The rapid advance which was achieved in wheat holds its own quietly, and holders are firm in the belief that the general condition of the European demand, even in peace, will prevent any losing of the ground which has been gained.

Our table is drenched with a heavy shower of moist clippings from our interior exchanges. The rains of a week ago were quite general throughout the State, although the downfall was graded in amount from a light sprinkle in some parts to good fractions of an inch in others. The grass has started in nearly all parts above the extreme southern counties, and the season of beauty is close at hand. As we write on Wednesday, the rains are renewed and the season seems fairly ushered in. The city seedsmen are polishing their scales for the heaviest of their weighings. In the country the smiths are busy putting the final edge upon the gangs. Here comes our springtime, while our Eastern friends gather the heavy white blanket over their shudders and clasp it with a chill.

Grapevine Mildew.

EDITORS PRESS:—Another number of the PRESS is before me, worth the full year's subscription. It is September 30th and the article I wish to notice is "Grapevine Mildew." It works with me as described in the article and came to my notice last year on some Mission vines. This year it seems to have spread more through the vineyard and also on some Muscat vines. I shall watch with interest for anything pertaining to its cause or remedy through your valuable paper.—C. H. MERO, San Bernardino, Cal.

Two fungi are generally known to produce the disease known as mildew on grapevines. One, as we noted in our issue of September 30th, has been known for years as the *Oidium Tuckerii*. This fungus at the East has confined its ravages to the foreign grapes and has done its worst work in the graperies and greenhouses. There is another fungus which has formed the mildew on the native grapevines at the East. It has lately received a thorough study by Professor Farlow, of the Bussey institution of Massachusetts, who designates it as *Peronospora viticola*. This fungus attacks the leaves and stems but is not found to injure the fruit, whereas the *Oidium*, or more properly *Erysipha, Tuckerii*, is found to infest and crack the berries as well as kill the leaves. These two fungi are most generally recognized as the cause of mildew in this country, although there are not less than 20 fungi, which have been given different names by as many different students. We shall confine our remarks chiefly to the *erysipha*. The *peronospora*, Professor Farlow says is not reported from this coast as yet, and there should be investigation to discover whether we have it. From our correspondent's letter above and similar information from others in more northern counties, it is quite certain that we have a mildew affecting the Mission as well as the foreign grapes. We are not aware that the examination of the subject has been close enough to determine whether the fungus affecting the Mission grape is the same as that on the foreign, and that the *erysipha* has departed from its usual custom at the East so far as to attack a native grape, or whether we too have one fungus for the foreign and one for the native vines, as well as our Eastern friends. This is a field for our mycologists to explore.

We will give our querist a few points which are known concerning the *erysipha*. Like other fungi it is a vegetable, and it is parasitic upon the vines. It reproduces itself by means of minute spores or seeds. The plant also extends itself with great rapidity by means of its mycelium, or mass of root-like organs which spread like a network over the surface of the leaves and penetrate its substance. When the leaf is examined under a microscope it is seen to be covered with a coating of crystal threads, and if the growth be followed numerous conceptacles will be seen, which are at first yellow and then brown. They gradually change in color and form until they throw out their sporangia and the circle of growth reaches its first revolution. This is an exceedingly interesting study if one have a microscope of sufficient power and correctness of image. We may at some future time give our readers an engraving showing these steps of growth in the fungus.

Some very valuable investigations on the growth and behavior of this fungus have been made by the agricultural department at Washington. From the report of 1871 we take the following note on the progress of the mildew and the remedies: "When this fungus attacks the leaves of the foreign vine, slightly transparent spots are observed, showing a seeming internal chemical change. The next stage appears of a whitish color; few would suppose it to be mildew; but when transferred to glass slides its whole formation is distinctly seen under the microscope. In its first stage on the surface of the leaf it may be easily destroyed, or at least greatly retarded in its growth by the application of sulphur, or its compounds, either in dry powder or as a wash. When sulphur is boiled in water with potash, soda or lime, the sulphur combines chemically with the alkali, forming a sulphide soluble in water. This should be highly diluted when used as a wash; but no more of it dissolved than is wanted for immediate use, as when exposed for some time to the air the chemical composition is changed, the sulphide becoming a sulphate, which is not soluble. So long as the liquid is of an amber color it is fit for use. The sulphates of the alkalies are colorless."

There is a good field for research in discovering the conditions which favor the growth of the fungus and the vines which are most liable to its attacks. We notice by our Australian exchanges that the colonial government is favoring the investigation in a substantial way. A series of questions is sent out to every vigneron, and thus the testimony of a great many interested observers will be secured. There is one point of the behavior of the fungus, as disclosed by the experiments at Washington, which we wish to notice: it is a matter of observation that most fungus growths, like the common mildews and molds, are fostered by a considerable degree of moisture. The *erysipha* seems to be otherwise. We read in the Government report as follows: "An experimental glass-house in which grew a variety of grapevines, both native and foreign, was selected for the test. Mr. Saunders gave orders on the 24th of June that the usual watering of the house be suspended for a time, stating that as a consequence *oidium* would quickly appear. In 12 days afterward this fungus made its appearance on the foreign grapes, covering them in a few days with a heavy coating of mildew. It is not supposed that extreme atmospheric dryness alone produces this mildew. The organic germs may be connected with the vine, internally or externally, but heat and a certain degree of dryness would seem to foster its growth in a material degree. The native vines in this house were not affected by the mildew, although the branches intermixed with the foreign. The vines were five years old."

These experiments were made under cover, and our system of growing may not answer them exactly. We shall be pleased to hear from Mr. Mero and all other readers as to what conditions of the atmosphere attend the appearance of the mildew, and what vines are most affected.

Grape Syrup.

EDITORS PRESS:—A friend called on me a few days since, and wished me to write to the RURAL PRESS and ascertain the best method for making syrup from grapes. Will you please inform us through your valuable paper, and oblige—A SUBSCRIBER, Placerville, Cal.

So far as we know the manufacture of grape syrup has reached the most systematic development at St. Helena, Napa county, at the establishment of J. C. Weinberger. We have, in former issues, noted the fitting up of his manufactory. A full answer to the query of our correspondent above may be found in the following interesting description, which we take from the last week's St. Helena *Star:* Mission grapes, let us premise, are the kind to be used; not only because they are worth less than other kinds for wine making, but are worth more for syrup—containing a greater quantity of saccharine matter.

The process is as follows: Juice from Mission grapes is expressed in the ordinary way, a ton yielding about 120 gallons fit for syrup-making. After the grapes have been through the crusher, the juice is drained off, all that will run freely, when the pumice is thrown in a press-tub, and all the juice that will run white pressed out—about a couple of hours pressing will accomplish this. When the juice begins to be colored it should no longer be used, and all the rest of the pumice may be thrown back into tanks and fermented for common wine, or sent to the still, or fed to hogs, for which latter purpose it is very good. The juice then ready should, before it undergoes any fermenting process—that is, within a day—be placed in what is called a clarifying tank, holding not less than 150 to 200 gallons, and made of planished (tinned) copper. The copper is to enable it to be heated, and the tinning to keep the acid of the juice when cooled from forming verdigris. This clarifying tank is over a fire, and the juice is heated up just enough to bring it to a boil. Just before this point a process is gone through to neutralize the acid and separate the albumen contained in the juice. This consists of the use of lime. For a quantity of, say 120 gallons of juice, take three pounds of unslacked lime, slacken with enough water (say a gallon) to make it into a thick paste. Then take part of the hot juice and stir it up with this lime, when, being reduced to a very thin state, pour it into the clarifying pan, (keeping back the sediment naturally resulting from the lime slacking) and stir it all up well. The effect of this will be instantly seen by a separation of the albumen from the juice, the former floating round in little particles like the curdling of milk, and becoming of a muddy color.

The acid in the juice is by the same process also neutralized, and becomes sweet. The juice being brought to a boil, the fire should now be reduced, and the juice may be either left in the clarifying pan to cool off and settle, or transferred to other tanks for the same purpose. Within about six hours it will have settled, and the evaporation or syrup boiling may be commenced. For syrup boiling various contrivances may be used. The best, Mr. W. considers Cook's patent evaporator, which is the one used by him. It is made at Cincinnati, Ohio, by Blymier's manufacturing company, and cost him (size No. 4,) $163.75 delivered here. The pan is a shallow affair, some four inches deep and about nine feet long by four wide; across this run partitions, dividing it into 18 compartments, or troughs like, and these partitions being alternately closed at one end and open at the other, make a continuous trough-like affair, through which the juice gradually flows from one side to the other, working slowly down in this way from the upper to the lower end of the pan, and the evaporating process meanwhile, by the aid of a moderate fire underneath, gradually going on, so that by the time the juice, which has entered at the upper end, gets to the lower end, it is reduced to syrup and is drained off into vessels below. For the purpose of keeping up the flow, the pan is made on rockers, so that the fall may be regulated to suit the syrup maker, (large pans are made on brick arches, with the incline already adjusted). The juice is fed into the evaporator from a tank at the head, whence it runs through a faucet in a continuous stream. As to the time consumed in evaporating, 250 gallons of juice can be readily put through in 12 hours. Three gallons of juice make one of syrup, providing the juice contains 25 per cent. of sugar, which is the minimum degree at which it ought to be made; the higher the better. This is about all, except the cooling off of the syrup, which ought to be done before putting in barrels. For this purpose a large iron pan, holding about 60 gallons, is used.

QUERIES AND REPLIES.

Drying Figs.

EDITORS PRESS:—Can you tell me how to dry figs? It runs in my mind that I once saw a recipe for drying them in one of your papers. But I am not sure. I will be much obliged if you can give me any information on the subject.—CLARA SLATTON, Haywood, Cal.

In an interesting article on fig culture in the RURAL PRESS of June 3d, W. B. West, of Stockton, gave the following directions for drying: "The curing of this fruit is very simple. The figs should be fully ripe before picking from the tree. They should then be placed in the sun for seven or eight days, or until they are properly dried, taking care to turn them often, as they mildew easily. When you are satisfied that they are properly cured, pack in large boxes to go through a sweat. This softens the skin. They should then be dried again and packed for market. The curing is not expensive or troublesome. Perhaps when we rightly understand the management of the driers by artificial heat we will find it easier. I have experimented enough to satisfy myself that there is no trouble to dry them well or quickly. They were partially cured in the sun and then put in a small drier for several hours. They were thoroughly cured and ready to pack away. The skin was softened and the figs cured so well that they did not mildew." Any further information which our readers may have on this subject will be gladly received.

Ramie.

EDITORS PRESS:—To what extent is ramie now cultivated in California? What portions of the State are best adapted to such cultivation? What is the approximate expense and profit per acre of such cultivation? Where can there be obtained a work on this subject, giving such information as might be needed by a person desiring to engage in such business, but having no previous experience?—J. A. M. J., San Francisco.

We cannot answer these questions satisfactorily, nor do we think the condition of the culture of ramie in this State will warrant conclusions concerning results. So far as we know the culture has thus far been only of an experimental character, and owing to the lack of suitable machinery for reducing the fiber, the material has not been tested fully as to profit, etc. There can be no doubt but that some parts of our State are admirably adapted to the growth and perfection of the plant, but the preparation of the fiber would be ruinously expensive. There was a machine invented here and illustrated in the RURAL PRESS one year ago; it was then taken to the Sandwich islands, and we have heard no more of it. We have been informed that there has been a simpler and more satisfactory machine invented, and that it is now in operation in Louisiana, but more than this we know not. We print the queries above for the purpose of requesting from our readers statements of their experience with the plant, and any other facts concerning manufacture, etc., which they may possess.

Rape.

EDITORS PRESS:—Will you please inform me about the raising of rape seed—how much to sow to the acre, and how it yields, the time to sow and the average price? Also, if it yields the same as white mustard.—CHARLES MCINTYRE, Castroville, Monterey county, Cal.

The culture and yield of rape is identical with white mustard, and it can be grown by good cultivation to be almost as large as white mustard seed. The trouble with our wild rape is that the seed is so much smaller than the imported seed, and brings an inferior price. This can be remedied by better cultivation, as is shown by the German seed. As rape is native, it may be expected to do very much better under culture, as with other plants and seeds. It will be best to sow from 10 to 12 pounds to the acre, and it should be sown as soon as the ground can be worked. The price depends upon the quality produced, and may range from three and one-half to six cents per pound.

A Suggestion for Prof. Hilgard.

EDITORS PRESS:—I would suggest that Prof. Hilgard, of the State University, (if he has not already done so) visit the shell mound near Emery station, Oakland, (perhaps with his class of agricultural students,) and examine the decomposed matter of which the mound is composed, with a view to investigate the value of the material for fertilizing. Also to experiment with it on the soils of the university grounds and report for the benefit of farmers.—D., Oakland.

We shall be pleased to hear from the Professor on this subject.

THE FINEST GRAPES AT THE CENTENNIAL.—A dispatch from Philadelphia to the daily newspapers, dated October 20th, is as follows: "Mrs. Dr. Strentzel and daughter, of Contra Costa, exhibit at the California building the finest specimens of Muscat, Flaming Tokay and Black Morocco grapes yet seen at the Centennial. They were brought over in prime condition in a Pullman car, having been taken simply as a part of a party lunch overland, Ewer and Dewey, of the PACIFIC RURAL PRESS, being of the party."

A PRIZE FOR CALIFORNIA HOPS.—We learn from the St. Helena *Star* that A. Clook, of that place, has received a first prize for his sample of hops shown at the Centennial, and Mr. P. Weilbacher, Secretary of the National Brewers' Association, New York, which had the hop department of the exposition in charge, writes that it was well merited.

THE committee appointed by the last Congress, to investigate the Chinese question, is now in session, and taking testimony in this city.

Gilroy Dairies.

On Friday of last week we had the plesenre of visiting some of the dairies in the vicinity of the town of Gilroy, in Santa Clara county. This region hss for several years enjoyed a special reputation for the excellence of its cheese prodnct. The country is well adapted for the dairy, bnt not better for this than for some other specialties of agricultural production, perhsps. It is an exeedingly well favored region in the direction of psstnre growth. Notwithstanding the absence of running water in the dry season, there is a peculiar formstion of underlying strata whioh fnrnishes the subsoil with water in wholesome quantitiee at desirable seasons. We crossed a pasture last Friday which holds its green grass qnite like an Eastern field, notwithstanding the fact that but a sprinkle of rain has fallen on it since laet winter. So far as we observed there are but limited tracts which are thus favored in the continuons growth of the natural grasses, but there are other fields upon which alfalfa has been grazed all summer and is yet fresh and green, withont irrigation. On other ranches there are other fields eimilarly favored, upon which the owners grow the forage crops with which they supplement the feed of the pastures. But we do not propose to make onr notice of the Gilroy dairies one of general conclusions; rather let us describe what we saw and let the comments fall where they belong in the narrative.

We visited Gilroy upon invitation of Mr. E. A. Davison, one of the vice-presidents of the California dairymen's association. Arriving in the evening, we first passed the night at his comfortable home and set out early in the morning for a cruise among the dairymen of the valley, leaving the examination of Mr. Davison'e establishment until our return.

Dairies Visited.

We first called at the ranch of J. W. Rea. Mr. Rea is keeping a dairy of about 200 cows, and has a neat, bright dairy house. For extra feed he is putting in alfalfa, and will have 160 acres, divided into fonr or five fields. Mr. Rea makes quite a point on the production of pork in connection with his dairy. He has now abont 400 hogs. He is breeding a thorough-bred Poland-China boar with Berkshire and wild sows, and is well pleased with the cross. He starts to feed the young pigs on barley meal, cooked potatoes and whey, and in the early summer turns them into the standing barley to finish them off for the market. For this purpose he grows 100 acres of barley. Mr. Rea's receipts for pork in 1875 were about $3,400, and in 1876 he has sold about $1,500 worth. He expects to keep up his pork crop to between $3,000 and $4,000 worth per year.

As we approached the ranch of Mr. H. Reeves we noticed a bright field of alfalfa which had been closely fed and yet was green and fresh colored. We afterward learned that on thie piece of 40 acres extent 100 cows had been turned to graze every afternoon since the dry time began. Besides these and the horses which have feasted on it, there have been 150 hogs, with noses cut against rooting, feeding on the field, and they like the alfalfa so well that they were wont sometimes to forget to come up for their whey. Notwithstanding all this feeding the field remaine fresh and green as we have mentioned, without irrigation. We found in Mr. Reeves' dairy some cheese of excellent flavor. What pleased us moet wae some of the April and May make, which was as mild and free from taint ae the most exacting critic could desire. Mr. Reevee is now beginning slopping his cows twice a day with bran, as much as they will eat during milking. He had found the yield of milk raised to the equivalent of one cheese a day by this extra feed.

As we passed through the village of Gilroy onr company was inoreased by the presence of a gentleman who has done as much as any other to give Gilroy her reputation for fine cheese: Mr. Samuel Cole. Mr. Cole having sold out his lease and dairy establishment to Mr. Davison, is now enjoying the rewards of his good work in one of the fairest rural homes which it has been our pleasure to visit. Mr. and Mrs. Cole have recently returned from a visit to their old homes in Central New York, and return more fully impressed than ever that California is the place to live.

Resnming our jonrney after a brief call at Mr. Cole's, we arrived at the dairy of the Reeves Brothers. They have now on hand about 2,000 fine oheese. Borrowing the words of the maker, we found them to "contain about as much wholesome grease as any oheese in the conntry." The flavor, too, was snrprisingly good. Reeves Brothers have in contemplation some important improvements in their dairy surroundings which we shall be pleased to describe when they shall be effected.

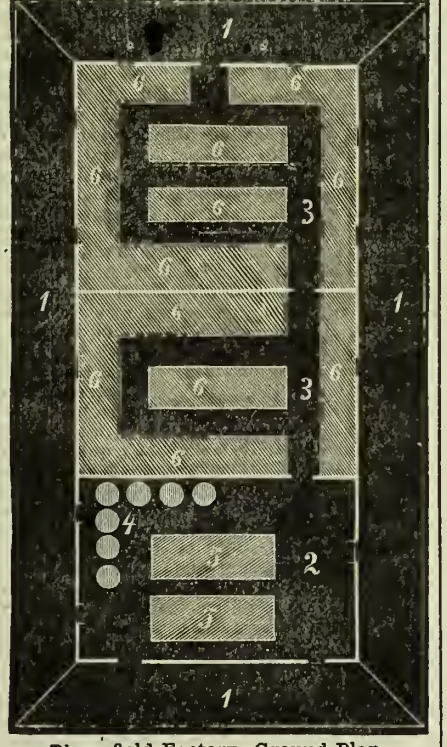
Aa we passed on our way we stopped a moment at tho beautiful place of Ferguson & Brother, and roamed at will through their vineyard and orchard. They have sold off their land so that the dairy is much reduced, and they may give up thia part of their bueinees. They are going into hog raising to some extent; breeding the pure blood Berkshire and Essex, aiming to produce a cross which shall mature early.

After a ride of abont nine miles we csme to Albert Willson's ranch and dairy at San Felipe. Mr. Willson has lately built a new dairy house, and his whole establishment is well kept and praiseworthy. He has a home which the owner may well be prond of. His barns are ample. He is a believer in well-fed cows, and his land bears ont his belief, for it gives him mnch early and late green feed and answers his efforts in the way of squashes and beets by giving him remsrkable growths. After a ho-pitable lunch with Mr. Willson and his interesting family, we induced him to become ono of our load and we pushed onward down the valley to the orchards and gardens of Mr. Buck, which deserve the reputation which they enjoy as a place of resort. Mr. Bnck has given special attention to the propagation of new and rare plants and trees, and he has a fine nureery of orange, lemon, almond, English and black walnut trees.

When we reached Mr. Buck's the day was so far advanced that we were forced to turn back toward Gilroy. We were loth to do so, as there were other dairies farther down the valley which we would have been pleased to have seen, but had to defer it until another time. We had it in mind to call upon Mr. Edward Arthnr, who is operating the dairy of Donnely & Dunn. This and other establishments mnst be retained until another opportunity offers.

Mr. Davison's "Bloomfield Factory."

Mr. Davison ie running one of the most complete dairy establishmente we know of in this State. The ranch contains about 1,000 acres and belongs to Henry Miller, of the well known firm of Miller & Lux. The dairy capacities of this property were well developed by Mr. Samuel Cole, aud to him is credit due for many of the excellencies of contrivance and execution which are plain to be seen on the property. Mr. Davison carriee on the business with much enterprise and is building on additions to the facilities which he secured from Mr. Cole. The soil is rich and the growth of green feed in its season is unsurpassed by anything we have eeen in the State. We know whereof we speak, for we paid the ranch a flying visit in the spring of 1875. Aside from the pastnres there are many acres which partake of the moist character of much of the valley lands, and give immense yields of the various forage crops, which are grown for extra feed for the cows. Mr. Davison is a believer in abundant feed, and in order that we might learn just what his practice ie in this regard, we gained from him a statement of his provision thie season and his plans for next year. He has a dairy of 225 cows on a ranch of 1,000 acres. Of this 675 acres are in pasture, 43 acres in grain for hay, 30 acres sowed corn, 15 acres beets and 15 acres squaehes or "punkins." He has it in mind for another year to keep 100 more cows. He will also aim to get the full benefit of the pastures while the feed is green, and place no dependence on the dry feed. For thie purpose he will break up 45 acres more of the best land, choosing thst which is moist and sure to raise a heavy crop at any season of the year. From this additional piece, with the other land under the plow, he expects to get enough green stuff to give the cowe full feed of green forage during the dry time.



Bloomfield Factory—Ground Plan.

1, 1, 1, 1, veranda 8 ft. wide; 2, manufacturing room; 3, 3, curing rooms; 4, cheese presses; 5, 5, cheese vats; 6, 6, etc., table. and shelves for cheese.

Mr. Davison's practice of feeding this year has been as follows: The cows come in mostly in January. From this time until March the pasture grass is so wet and rank that one feed of hay is given. From March until July the cows have the finest pasturage. On July 7th he began feeding sowed corn and the yield of milk from 165 cows increased 600 pounds per day. He fed eight tons sowed corn per day and the flow of milk was well maintained during July. From July 7th until August 25th all the extra feed was this sowed corn. Then the cows had two loads of beets and four of corn for a week. After that they had three loads of corn, cured in the shock, and four loads of beets. On September 15th he began feeding one load of hay and two loads of cured corn. Now the ration is one load of hay, one of corn, two of beets and two of pumpkins.

The Factory,

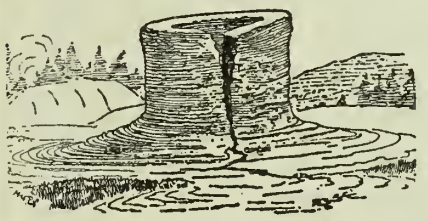
Of which we give a gronnd plsn herewith, is very well contrived and well constructed. It is 30 by 55 feet in size, and the ceilings are 12 feet high. The plan given will sufficiently show the interior arrangements. The windows are fitted with close blinds. The walls are eight inches in thickness and are filled with sawdust tightly rammed down. The interior is finished with matched ceiling. There are three ventilators in the roof, one in each room; and in the curing roome there are ventilators at the level of the floor which, may be opened and closed at pleasnre.

A few feet from the factory is the engine house, in which is a portable engine and boiler which furnish steam for the cheese vats and sinke, and furnish power for a cheese-box making machine; more than this, the power is carried by a rope belt to a hay cutter in the barn, and the eteam is carried through an underground pipe to a tank in which food is cooked for the calves and hogs.

The manufacture of cheese-boxes like those used at the East is something new in this State. Mr. Reeves is associated with Mr. Davison in the enterprise. A ehipment of 100 cheese have been sent to the city this week in the new boxes. The chargo which the commission merchant makes for boxee is of course done away with and this more than pays for the cost of the new boxes. Mr. Davieon also expects the movement to be profitable to him in the way of creating a demand for cheese, each boxed by itself, because the cheese will keep better and undergo transportation better. We shall look for the future developments of the venture with much interest.

A Dairy Barn.

There is one thing more which we think of particular interest at Mr. Davison's establishment, aud that is one of the finest dairy barns we have ever seen. It is 162 feet long and 40 feet wide, built with 20-foot posts. Through the center runs an avenue 14 feet wide, and through this a car moves on a tramway. Two rows of stanchions face the central avenue and a long manger is in front of each row. The feed is dietributed from the car along the mangers, and when the cowe come in to be milked the mess is before them. The barn wi l accommodate 100 cows at a time, and when 100 are milked another 100 are admitted to take their places. As the cows stand in the stanchions, there is an alley way of about fonr feet behind them, so that there is abundant room for the milkers to pass along the row. The upper story of the barn will hold a great weight of hay, and here is located the steam power hay cutter, so arranged that it can be moved along as the stack is fed down. To one who studies the economic value of a barn of this description, the result must be very satisfactory. Contrast with it the muddy corral, with the animals exposed to the driving rain storms, consuming the greater part of their food in the effort to maintain the heat of their bodies. Contrast the quiet comfort of the animals with the restless, distressed inmates of the corral. Contrast the cleanliness of the milking with the filth of the enclosure, in which, in one case at le st, the mnd has been so deep that cows had to be milked in pans because there was not room enough between the cow's bag and the mud to let in the pail. It will not take many such contrasts to convince a man that a properly constructed dairy barn is one of the things most desirable. The tendency of dairymen in this State is toward the building of good dairy barns. The saving of food from the waste of trampling in open field, and the increased flow of milk which comee from the comfort of the animal, will make the investment profitable in many of our dairy counties. At the recent dairy convention in this city we learned from Mr. H. M. Terry, of Santa Cruz, that he was building a barn of the kind we have designated, and he promises us a description of it. We trust we may be able to lay it before our readers.



Dead Chimney of Geyser.

We passed a very pleasant time at the home of Mr. Davison and hie estimable wife. They are both in earnest in the success of their dairy enterprises, and we trust they will obtain it in fulleet measure. They have lately come to the State and they are of the people whom it is for the good of the industries of the State to find in the passenger lists.

On Saturday morning, on our way to take the train for the city, we made brief calls at the dairies of Mr. Ellis, whom we found deep in the mysteries of butter making, and Messrs. Watson, Samuel Rea, and the "La Brea dairy" of J. P. Sargent & Co. These gentlemen were not at their dairy houses, and the short ratione of time which we possessed prevented ns seeking them out.

Moving toward Gilroy, we stopped a few minutes at the home ranch of Mr. Henry Miller, and saw what would take a page to describe. Mr. Getchel was very kind in showing us abont the place, and we saw stock horses and swine which we shall not soon forget. Not least was the band of steers which Mr. Miller is breeding to set before the city as "Christmas beef." They are noble animals and are being fatted for the markets at no stint of feed or care. Many of them look to dress 1,500 pounds. Tney are massive and beautiful.

Our visit closed with a pleasnt dinner with Mr. and Mrs. Cole, and we returned to the city full of the belief that the future of the Gilroy region is well assured in the strength and enterprise of the farming interest.

Extinct Geysers.

In speaking of the geysers of the Yellow stone country and their geological features, Professor Hayden states that traces of even greater activity than we see at preeent are found in some localities, and it is more than probable that the force is gradually dying out from year to year, and that finally it will cease entirely. We have nnmerous localities in the West where there have been vast gronps of hot springe and geysers, but at the present time only ruins are left. It would seem probable that the heat that gives the temperature to the atmospheric waters, risee through numerous fissuree from one common source in the interior of the earth, so that when from some cause this heat is checked in its upward progress in one place, it finds vent in another, and thus passee from point to point over a district. It ie probable that they have existed since the period of volcanic activity, aud that now they are diminishing in force, eo that eventually nothing but the deposit will remain. Large nnmbere of old chimneys, such as the one shown on this page, are scattered over the surface, formed by what may properly be called pulsating geysers.

Raisins.

The recent rain-storms caught many raisins napping. We read in the local papers that 'Mr. R B. Blowers had several tons out when the rain came, but fortunately he has a drying house and will be able to save most of them, though they will probably not make so prime an article of raisins." Another paper says: "Dr. Chandler, who is drying a hundred tons or more of raisins this season, hae euffered a severe loss by the recent rain-etorm." Doubtless the damage which the large curers of grapes experienced was shared also by the smaller growers, and it will not be strange if the past rains and those which are falling as we write will reduce the aggregate production of the State considerably.

A New York paper reports the raisin market in that city ae follows: The *Caledonia* has arrived, bringing from Malaga 51.040 bxs, 895 hf do, 3,934 qr do, 100 bbls, and 400 bls, a considerable portion of which has been already placed, and 3 330 hf bxs Valencia. There has been an active demand and prices of Malaga are 5c ₱ bx higher; we note sales of 5,500 bxs Layer at $2.10@$2.15; 6,000 do Loose, $2 10@ $2.25; 500 do old, $1.90; 500 bxs new London Layer, $2.72½; 2,500 do Loose, and ex *Caledonia*, 29,500 do one, two and three crowns, and 5,000 do Layer, 1,000 hf do, and 3,000 do qr do on private terms; we notice besides an invoice of 190 bbls, consisting of whole bxs, qr bxs, and cartons fine fruit ex *Nio*, at prices reserved. Valencia are unchanged; 1,200 hf bxs sold at 10⅛@10¼c, and 300 do old, 8c; new Sultana are jobbing at 12c.

The Orange and Lemon Crops.—The *Call* notes the arrival of the first lot of Loe Angeles lemons, by the Southern Pacifio railroad. It is probable that a large part of the next Southern California fruit crop will be diverted from the steamer to the quicker railroad route. Two of our fruit commission merchants have just returned from a visit to the orange orchards of Los Angeles county, and report that the next crop will be a large one. The production of oranges, lemons and limes is rapidly increasing in that part of the State, is due to the increasing yield of young orchards. It is reported that there are at Riverside 75,000 orange, 25,000 lemon, and a very large number of lime trees, about ready to commence bearing.

Personal.—We learn that Professor A. Ebermayer has accepted the editorship of the San Jose *Courier*, a weekly paper in the German langnage. As the paper will devote especial attention to agricultural and commercial matters, we are pleased to welcome Professor Ebermayer to our field. He has had considerable experience in newspaper work and is a ready and able writer.

On File.—"Wayside Notes," F. H. M. D.; "Notee from St. Helena," J. M.; "Colusa Connty Notes," B. W. C.; "Poultry Items," M. E., Jr.; "Los Angeles," G. G. W. M.; "How do you do?" N. J. M. S.; "Berryessa Valley," O.; "Going to Law," S. P. S.; "In Memoriam," New Castle Grange; 'Centennial Chat," M. M.

(Continued from Page 283.)

possessed by no one variety. The requisites for first-class raisins are, first, tender, tasteless skin; second, hard, abundant flesh; third, small, soft, tasteless seeds, and the fewer in number the better. These are essentials. In addition, they should cure quickly; the change from juice to grape sugar should be accomplished with the least possible loss of weight or bulk of fruit. The fruit should also be, to the greatest possible extent, free from liability to rot or deteriorate in flavor from unfavorable conditions of moisture or temperature while curing. Any grape possessing these or most of these qualities is valuable for raisins.

I have no vines to sell. I have given such names as I can vouch for as having the genuine article of different varieties described in this article, to enable the reader to confer with parties most competent to give information or furnish vines that can be depended upon as true to name and description. I have also done this to avoid personal correspondence, which my present and prospective condition of over-work admonishes me that I have no time for; but I shall always find an hour to answer questions of general interest through the columns of the RURAL, which, since its first number, has come to me every week laden with the best thoughts of many that I know to be leaders in the industries which they represent.

W. A. SANDERS.

Kings River, Fresno county, Oct. 15th.

[Mr. Sanders will accept the thanks of our readers for this very pleasant and satisfactory contribution to raisin literature.—EDS. PRESS.]

HORTICULTURE.

A Wash for Fruit Trees.

The following is recommended by a commission of fruit growers, presided over by Prof. Cyrus Thomas, State entomologist of Illinois, and is part of a very full report, embodying advice as to the best means of fighting the insects that infest the orchards of that State: "Insects and mildew injurious to the leaves of seedlings and root grafts can be kept in subjection or destroyed by a free use of a combination of lime and sulphur. Take of quick or unslaked lime four parts, and of common flowers of sulphur one part (four pounds of sulphur to one peck of lime); break up the lime in small bits, then mixing the sulphur with it in a tight vessel (iron best), pour on them enough boiling water to slake the lime to a powder; cover in the vessel close as soon as the water is poured on. This makes also a most excellent whitewash for orchard trees, and is very useful as a preventive of blight on pear trees, to cover the wounds in the form of a paste when cutting away diseased parts; also for coating the trees in April. It may be considered as the one specific for many noxious insects and mildew in the orchard and nursery; its materials should always be ready at hand; it should be used quite fresh, as it would in time become sulphate of lime, and so lose its potency. Whereever dusting with lime is spoken of, this should be used. This preparation should be sprinkled over the young plant as soon as, or before, any trouble from aphides, thrips or mildew occurs, early in the morning while the dew is on the trees. This lime and sulphur combination is destructive to these pests in this way: Firstly, by giving off sulphuric acid gas, which is deadly poison to minute life, both animal and fungoid; and the lime destroys by contact the same things; besides its presence is noxious to them; neither is it injurious to common vegetable life, except in excess, unless the lime to the foliage of evergreens."

USEFUL INFORMATION.

How to Measure Flowing Water.

The measurement of flowing water has been the subject of protracted and careful experiments under the auspices of both the French and English governments. We find in the "Transactions of the Royal Society of London" the following conclusions drawn from these experiments:

1. That the quantities, discharged in equal times, are as the areas orifices. 2. That the quantities, discharged in equal times under different hights, are to each other nearly in the compound ratio of the areas of the apertures and of the square roots of hights. The hights are measured from the centers of the apertures. The mean result, also, of several experiments, all the openings being formed in brass plates 1-20 of an inch thick, showed that for round, triangular and rectangular holes, the average of the numbers showing the proportion between theoretic discharge of water, calculated as a falling body, and the actual discharge, as measured, was 0.1 and, for rectangular holes, it was 6. It has also been found that the effect of gravity may be represented by 64 feet 4 inches, or 64.3—that is, the hight in feet through which the body falls being multiplied by 64.3 will give the square of its velocity in feet per second. For the actual discharge per second in cubic feet, multiply the product of the altitude or head of water in feet, and the area of the orifice in square feet, and the time in seconds, by 64 3, then extract the square root, and multiply by 6. It is found, also, that with small orifices the effect of a high head is to contract the vein and to diminish the discharge, so that the nearer the orifice can be brought to the surface, and yet the water be kept running with a full stream and without causing any eddy or depression of the surface, the greater will be the discharge. But, with larger apertures, as for instance one with 3 1-4 feet in length by 1 5-8 feet in width or about 5 3-8 square feet of area, the discharge increases with the increase of head.

As to the discharge of water from notches in dams, it is found to be equal to two-thirds of the discharge from an orifice of the same size with a full stream under the same head. The proportion between the theoretic and the actual discharge from open notches varies with the depths, the factors being used less with the greater depths. An English hand-book of tables gives 214 cubic feet per minute as the quantity which would run over every foot in width of a regular notch, one foot in depth from the water's surface. The amount discharged depends very much on the form of the notch or aperture. A plain, rectangular notch, cut with square edges in a three-inch plank, will discharge very much less than one which has its inner edges beveled or rounded off in the parbolic form of the contracted stream or vein of water. If the aperture be small the difference may amount to a fourth of the whole quantity. Care should also be taken to form the wing-walls to sluices with curved or trumpet-shaped approaches, conformed to the natural contraction which may be produced by the overflow or sluice-way.

To Obtain the Quantity

Which passes through a parallel channel in a given time, the sectional areas should be multiplied by the mean velocity, the latter element being obtained by adding the velocity of the water at the surface and that at the bottom of the current and dividing the sum by two. As it may not be convenient, in every case, to ascertain the velocity at the bottom, the mean velocity may be determined with accuracy sufficient for practical purposes, by ascertaining the surface velocity in inches per second in the middle of the stream, and the mean velocity will be equal to this velocity less the square root of this velocity minus five. If, for example, the surface velocity in the stream is equal to 36 inches per second—the mean velocity will be found by subtracting 5 from 36, leaving 31, then extracting the square root of 31, which is 5.5, and subtracting this last figure from 36, giving 30.5 inches per second for the mean velocity. Multiplying this number by 60 and dividing by 12, or, which is the same thing, multiplying it by 5, will give the velocity in feet per minute. In the case, just supposed, the velocity per minute will be 152 5 feet. If, then, the water course be 4 feet wide and 2 feet deep, the amount of water discharged per minute would be 152.5x8 or 1,220 cubic feet.

When the overfall is a thin plate, it will discharge a greater proportionate quantity when the stream is only one inch deep than with greater depths. When the overfall is of two-inch plank, the flow of water is more retarded, a greater head is requisite, and the maximum discharge is given by a head of seven inches. When the length of the overflow plank is ten feet, the co-efficient is greatest with a depth of five inches, and when wing-boards are added, causing the stream to converge toward the overfall at an angle of 64 degrees, the coefficient is greater even when the head is less, showing the utility of proper wing-walls on sluices.

To determine the

Hight of the Waterfall

In a running stream, a small temporary dam, unless one exists, must be made so as to secure a still surface. Take two poles, sufficiently long to reach from the bottom of the water to the required line level. Make a plain mark or notch on both sticks, at a distance from the upper ends equal to the distance of the intended line level above the water, marking that distance in feet and inches. Push the poles down through the water into the earth at the bottom until the notches are both at the level surface of the water, care being taken to have the poles plumb and at a convenient distance apart. Sight across the tops of these two, and set as many more as may be desired to run the line of level to the desired point, and the tops, being ranged accurately by the first two, will show a water level so many feet above that of the water. It is estimated that this is a more accurate way than the use of the ordinary spirit level.

THE APPLE CURE.—The apple cure is the use of apples as food, on the same principle that grapes are used. The cure by apples might be equally popular if introduced. Who has an orchard where it can be tried? The scenery and surroundings should be good. A writer in the *Laws of Life*, for June, states that after being troubled with heartburn, wakefulness, indigestion, etc., he adopted the practice of eating apples with each meal, daily. The wakefulness and heartburn are gone. He is cured. When he began he weighed 130 pounds. Two months later he had increased to 160 pounds, his strength being similarly increased. Instead of "bitters for the stomach, cathartics for the bowels, iron for the blood," all of which weaken the vital organs and give a relief that is only temporary, apples are a natural stimulant.

Care of Machinery no Mystery.

The *Mill Stone*, a monthly journal published at Indianapolis, Ind., one of the many good papers printed in the interest of special trades at the West, gives to its readers the following sound advice on the watchful care necessary in operating machinery:

To correctly plan and devise improvements in machinery involves the exercise of a considerable degree of original genius; and to fully develop such improvements, and to bring them into the most practical shape, requires, in addition to this, the application of acquired knowledge of the construction of the machine or mechanical combination, in such manner that each of the different parts thereof may be properly proportioned and arranged with reference to the particular function which it is designed to fulfill. When this is done, and the work completed, its needful mission has commenced, and inventive talent or skillful instructors need not be employed upon it, unless it should be to modify or add further improvements. Yet, however complete in itself, or however effectually it may perform its work, it is not endowed with the faculty of self-preservation, and, unless it be properly cared for, will be subject to numberless accidents and injuries, involving not only its own immediate or ultimate destruction, but, in many instances, the loss of life or limb to those employed in its operation. This necessary care requires, not the expert mechanic or professional skill, but simply the exercise of common sense. It is by prompt attention to the little things that the maximum efficiency and durability is attained, with properly designed and constructed machinery. When the bearings of shafts and the spindles are not oiled sufficiently, not only does the increased friction require a greater amount of driving power, but the bearings are roughened or destroyed in a proportionate degree. When the caps of journal boxes are left too loose, the journal wabbles, and, if there is gearing attached to the shaft, its teeth are badly worn out of shape; while, if the caps are screwed down too tight, the oil is forced out, the journal heats, and both the shaft and bearing are soon rendered worthless. These matters are of no small moment, and the aggregate loss resulting from inattention to them is very great. It is not confined alone to the machinery of mills and other manufacturing operations, but occurs in a very much greater degree in machinery employed in agriculture. Many a thresher, horse-power, or harvester has been branded of bad construction, and been prematurely disabled, when a few drops of oil, or one or two turns of the wrench, were all that were required to set things to rights. Many other items might be mentioned, in which attention to little details, requiring only an application of ordinary common sense, will guard against great and unnecessary waste of power and damage to machinery; but these are sufficient to illustrate the almost self-evident proposition that, while talent is required to originate, and practical knowledge to construct machinery, its most efficient operation, and the profit in its use resulting therefrom, can only be secured by bringing to bear upon its management the plain, ordinary principles derived from every day observation and experience.

HOW TO DRY FLOWERS WITH SAND.—The *Floral Cabinet* says: There are many of our brilliant flowers—such as dahlias, pansies, pinks, geraniums, sweet williams, carnations, gladiolus, which may be preserved so as to retain their color for years. White flowers will not answer for this purpose; nor any succulent plant, as hyacinths or cactus. Take deep dishes, or those of sufficient depth to allow the flowers to be covered an inch deep with sand. Get the common white sand, such as is used for scouring purposes, cover the bottom of the dish with a layer half an inch deep, and then lay in the flowers, with their stems downward, holding them firmly in place while you sprinkle more sand over them, until all places between the petals are filled and the flowers buried out of sight. A broad dish will accommodate quite a large number. Allow sufficient sand between. Set the dish in a dry, warm place, where they will dry gradually, and at the end of a week pour off the sand and examine them. If there is any moisture in the sand it must be dried out before using again, or fresh sand may be poured over them the same as before.

A NEW PLAGUE IN EGYPT.—A letter from Alexandria, August 27th, says: A new calamity now engages the attention of all Egyptians even more than the financial decrees of the Khedive or the refusal of the government to accept the judgment of the new courts. It seems that many of the cavalry horses that have returned from Abyssinia in the last two months came with a most malignant disease upon them. The doctors pronounce it a kind of typhoid fever. It is most infectious and terribly rapid in its progress, death resulting in many cases in a few hours. It is stated, and on good authority, that the government, instead of isolating the infected animals, sold them all at a very low price to the *fellaheen*. Thus they have been distributed throughout the country, and in the neighborhood of Cairo alone several hundred horses are already reported dead.

A LAW has been passed in Germany forbidding the construction of school-rooms with windows on both sides, as they are injurious to the eyes.

Painless Killing.

Benjamin W. Richardson reports in *Nature* as follows: The latest experimental researches which I have conducted on lower living animals have had for their object the discovery of a ready, cheap and innocuous method for killing without pain those animals which are destined, as yet, for the food of man. If the labor of the physiologist be allowed to progress, the day will soon arrive when the slaughter of animals for food will become unnecessary, since he will be able to so transmute the vegetable world as to produce the most perfect and delicious foods for all purposes of life without calling upon the lower animal world to perform the intermediate chemical changes. But until this time arrives animals will have to be slaughtered, and my research has been directed to make a process, which at present is barbarous and painful, painless in the most perfect degree. For this purpose the various modes of rapid destruction of life—by powerful electrical discharges, by rapid division of the medulla oblongata, and by the inhalation of various narcotic vapors, have been carried out. The experiments, which have been exceeding numerous, have led me to the conclusion that the most perfect of the painless methods of killing is by the inhalation of carbonic oxide gas. So rapid and complete is the action of this gas, that I might say physiological science has done her part, as far as need be done, for making the painless killing of every animal a certain and ready accomplishment, an accomplishment also so simple that the animal going to its fate has merely to be passed through the lethal chamber in order to be brought in senseless sleep into the hands of the slaughterer. The application of teaching and the putting into practice this humane process lies now with the world outside science; but to insure its acceptance all the force of selfishness, of prejudice, and of practical apathy for the sufferings of the animal creation have to be overcome. There is a great deal of talk and a great deal of sentiment abroad on the question of the sufferings of the lower animal kingdom, but when an attempt is really made to relieve those sufferings by the invention of methods for the operating, surgically, without the infliction of pain, or for painless killing, the true vital sympathy which one would expect in support of such practical and humane efforts, until they are made universal, can scarcely be said to be found at all. With the exception of a few, not a dozen altogether, of really humane ladies and gentlemen, I have found no one, out of the ranks of science, in the least interested in the saving of sufferings to which I am now directing attention. The man of science stands and wonders at the strangeness of the psychological problem before him, and, in spite of himself, is forced to the conclusion that, practically, the noise that is made at him in the name of humanity is, after all, sounding brass and tinkling cymbal.

The Immigrant Bureau Re-Organized.

A Free Employment and General Information Office.

The Peoples' and Grangers' Immigrant Bureau, which accomplished so much good last year, has been re-organized under a new Board of Directors, and will continue its good work of attracting immigration and providing for the necessities of the new comers FREE OF CHARGE. Four thousand and eighty-two situations have been found for applicants since May, 1875 The Bureau expects to receive orders for all the help that may be required in the country the present season. Four hundred persons visit the office daily. Descriptions of land, maps, pamphlets, circulars, and local newspapers, should be sent to the Bureau. They will be freely distributed among inquirers. The Bureau was established by the State Grange, and being supported *entirely* by subscription NO CHARGE is made for any business transacted. The following gentlemen are on the Board of Directors for the ensuing year: Mayor A. J. Bryant, Chairman; I Friedlander, C. Adolphe Low, Mark L. McDonald, Amos Adams, J. Regensburger, C. D. Sullivan, Charles Lux, George H. Eggere, J. C. Wilmerding, C. J Cressy, John Morton, Col. A. Wason, Hon. F. A. Gibbs, F. B. Taylor, C. H. Dennison, Claus Speckles, Charles Kohler, A. W. Thompson, All communications should be addressed, J. EARL, MANAGER, IMMIGRANT BUREAU, Grangers' Building, 40 California street, San Francisco.

Superior Photographs.

To be sure of a good picture, you have only to patronize G. D. Morse's Palace of Art, at No. 417 Montgomery street, S. F. The publishers of this journal have patronized Mr. Morse for many years, and do not hesitate to say that his pictures are not excelled by any we have seen produced in this or any other country. No one can ask for a better man to patronize than Mr. Morse. He is affable and respectful to all.

DEWEY & CO.

U. S. and Foreign

Patent Agents,

No. 224 Sansome St.

SAN FRANCISCO.

To Inventors.

To secure the services of able, reliable and every way efficient attorneys to properly prepare and present the case of an applicant for a patent at Washington, is an important item with those who have important inventions. It is not always that young inventors know just where to find such agents. Dewey & Co., the publishers of this paper, have been the leading patent solicitors in the United States west of the Mississippi for over twelve years past. Their specifications and principal business is done by able and experienced partners in the firm. They refer with pleasure to thousands of patentees for whom they have secured valued patents. Their pamphlet circular, containing hints and information to inventors, will be sent free on application at the office, No. 224 Sansome street, S. F.

The Scientific Press Engraving Company.

As has been announced in our columns, this company is prepared to do fine wood engraving on favorable terms. Mr. E. Schultze, managing partner, served a thorough tuition in his branch of art in Germany and New York, and has since had over seven years' experience in designing, drawing and engraving in California. Customers can place their orders in Mr. Schultze's hands with the full assurance of receiving satisfaction as to quality of work and fairness of price.

Contents of Pamphlet on Public Lands of California, U. S. Land Laws, Map of California and Nevada, Etc.

Map of California and Nevada; The Public Lands; The Land Districts; Table of Rainfall in California; Counties and Their Products; Statistics of the State at Large.

Instructions of the U. S. Land Commissioners.—Different Classes of Public Lands; How Lands may he Acquired; Fees of Land Office at Location; Agricultural College Scrip; Pre-emptions; Extending the Homestead Privilege; But One Homestead Allowed; Proof of Actual Settlement Necessary; Adjoining Farm Homesteads; Lands for Soldiers and Sailors; Lands for Indians; Fees of Land Office and Commissions; Laws to promote Timber Culture; Concerning Appeals; Returns of the Register and Receiver; Concerning Mining Claims; Second Pre-emption Benefit.

Abstract from the U. S. Statutes.—The Law Concerning Pre-emption; Concerning Homesteads; Amendatory Act Concerning Timber; Miscellaneous Provisions; Additional Surveys of Land for Pre-emption; List of California Post Offices.

Published and sold by DEWEY & CO., S F.

THE RURAL PRESS.—Glancing over the columns of a late number, we are pleased to find how much excellent reading matter it contains. It keeps a farmer posted in the latest information of real value. It is up with the times in suggestions and advice, answers to queries, etc. It tells of new trees, seeds and plants, mentions discoveries and useful recipes. The farmer, his wife, boys, girls and help, can all read it with pleasure and profit. It fairly represents each part of the State to immigrants. It is now giving a short sketch and statistics of each county. We shall watch with interest when it gets down to Santa Barbara Co. It gives prominence to an article from our columns on the state of the crops in this valley. Farmers, you can't afford to be without that paper.—*Lompoc Record.*

AMERICAN MANURES, OR FARMERS' AND PLANTERS' GUIDE.—Comprises a description of the elements and composition of plants and soils; the theory and practice of composting; the value of stable manure and waste products, etc. Also, a chemical analysis of the principal manufactured fertilizers—their assumed and real value—and a full expose of the frauds practised upon purchasers. By Wm. H. Bruckner, Ph. D., Phila. Sold at this office. Price, $1.75; post paid.

THE THRESHERS' GUIDE, by D. W. Hollihan, a practical operator with threshing machinery in California and other States. A book of useful and friendly hints to the grain growers, machine owners and threshing superintendents and workmen. Published at the RURAL PRESS office, in 1872. Price, $1; in limp cloth binding, 75 cents; postage paid.

SACRAMENTO, May 29th, 1875.

MESSRS. DEWEY & CO.—*Gentlemen:*

Yours of the 27th inst. is received. The patent came duly to hand yesterday, by express. Please accept thanks for your promptness in obtaining the same.

Very respectfully, DUNCAN BEAUMONT.

Mining and Scientific Press,

Is the leading mining journal in America, and enjoys a large circulation among the more intelligent operators and workers in the gold fields of the world.

As a scientific and mechanical representative of the Pacific Coast, it is decidedly popular and a standard journal with the most thrifty industrial people of the Pacific States and Territories. Its authority is of the highest order, and its usefulness in its special sphere unrivalled.

Every public library, mining engineer, metallurgist, mining operator and intelligent mechanic and manufacturer will find profit by its reading.

Subscription, $4 a year, in advance. Sample copies post paid, 10 cents. As an

ADVERTISING

Medium for the Pacific Coast, it is superior to any other journal for all kinds of mining and hydraulic machinery and other mechanical work, building materials new manufactures and inventions. Our rates are very reasonable compared with those of other first-class journals. DEWEY & CO., Publishers.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

A. MAILLIARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, San Bruno, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $100.

P. STANTON, Sacramento, Cal., breeder of choice Jersey Cattle. Bulls, Cows and Calves for sale.

SHEEP AND GOATS.

GARNIER BROS., Encino Ranch, Los Angeles Cal., breeders of pure French, Spanish, and Saxon Merino Sheep. Price, from $25 to $50, each.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

T. A. WILSON, Grayson, Stanislaus county, Cal. Breeder and Importer of Spanish Merino Sheep.

LANDRUM & RODGERS, Watsonville, Cal., breeders of Pure Breed Angora Goats.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

M. FALLON, Cor. Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Fowls for Hatching from Pure Bred Fowls.

J. M. KERLINGER, Ellis, San Joaquin Co., Brown Leghorns a specialty. A few Pure Brahmas and White Leghorns for sale cheap, to close.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

SWINE.

ALFRED PARKER, Bellota, San Joaquin Co., Cal., Breeder of Improved Berkshire Swine.

WHOever desires profitable employment **WILL** find that there is nothing by which they **CAN** as easily earn a livelihood and **MAKE** themselves useful, (for certainly **MONEY** is not the only object of life,) as by canvassing for "Lights and Shades in San Francisco." A Good Agent is wanted for every town on the Coast. Address immediately,

Pub. "Lights and Shades in S. F."
P. O. Box 1211, S. F.

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ALL NEWLY FURNISHED,

824 & 826 Kearny St., - San Francisco, Cal.

$1.50 & $2 per day. Free Coach to the House.

H. C. PATRIDGE, - - - Proprietor

A Boy for the Country.

An intelligent lad, 13 years old, wants a permanent home in the country. Address J. B. PORTER, dentist, Oakland, Cal., or at this office.

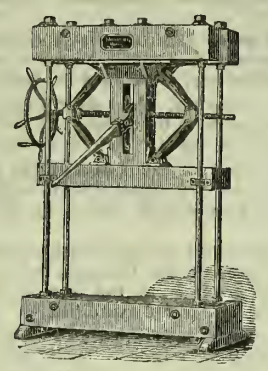
$250 A MONTH.—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

THE PACIFIC RURAL PRESS has a larger Circulation than any other Pacific Coast Weekly, independent of a daily issue.

Agricultural Articles.

BOOMER PRESS,

For WINE, CIDER, PAPER, LARD, TALLOW, TOBACCO,



Etc., Etc.

We Claim for the BOOMER & BOSCHERT WINE PRESS a Great Superiority over any other in the Market, for the Reasons:

FIRST—That while it is STRONG, and equal to the hydraulic in power, it is of SIMPLE construction.

SECOND—Its power is ACCUMULATIVE, increasing as the substance becomes more dense.

THIRD—It will PRODUCE MORE WINE with the least LABOR, and in the least TIME.

For particulars and prices, address

A. L. FISH & CO.,

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VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power

[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,

Cor. J and 10th Sts., Sacramento.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.



Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

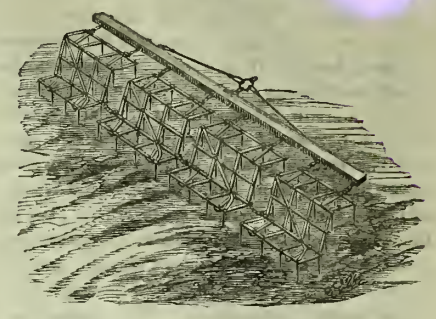
14v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.

OAKLAND Spring Balance Gang Plow.



Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal Established in 1858. Send for Circular and Pricelist

IRON SECTIONAL HARROW.



This Harrow was Awarded the First Premium at the California State Fair in 1875.

The undersigned, having purchased the patent right of this Harrow for California, are now manufacturing them in Roseville, Placer County, and would call the attention of Farmers to the superior merits of this Harrow over all others now in use.

As its name indicates, it is made in sections of about three feet in width, each section having four bars, in which the teeth are inserted, and by connecting the sections with links, the Harrow is formed.

Should a Farmer require a Harrow upon his farm to do all kinds of work, he should purchase six sections, which would be suitable for four horses, and would cut 18 feet in width; by disconnecting two sections he will have a two or three-horse Harrow, cutting about 13 feet. One section alone is complete in itself, and suitable for garden work, with one horse. The Harrows are made of the best quality of iron, and with teeth warranted to be steel.

We give a few of the many reasons why we claim superiority for these Harrows over all others in use on this Coast:

First—By the lightness of draft, taking into consideration the amount of work it does.

Second—By working uneven or rolling ground just as well and as evenly as if it was entirely level.

Third—They are made of Iron and Steel, and therefore are not affected at all by sun or rain, or by heat and cold; they are always tight, and ready for use; they are also durable. A farmer purchasing one has a Harrow that will last a life time.

Fourth—The teeth being fastened with a nut and screw into the cross bars, should one break, another can be inserted in a moment. We are making three sizes, all being the same in width, but different in depth and weight only.

Prices, from $12.50 *to* $15.00 *per Section.*

All orders sent to

BREWSTER & CO.,
Roseville, Placer Co.,

Will be promptly attended to, and satisfaction guaranteed in all cases.

CAUTION.

It has come to our notice that certain parties are now making this Harrow in this State, and that several of them have been sent here from the East. Now this is to *caution* all persons against making, selling or buying them, so made and offered for sale, as we shall enforce our rights in relation to the matter, and would call the attention of all persons infringing upon our patent, to the *law* in regard to it.

BREWSTER & CO..

Roseville, July 15th, 1876.

Grangers' Bank of California,

42 California Street,

SAN FRANCISCO.

Authorized Capital, $5,000,000.

OFFICERS:

PRESIDENT.....GILBERT W. COLBY.
MANAGING DIRECTOR.....C. J. CRESSEY.
CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

The Bank was opened on the first of August, 1874, for the transaction of general banking business.

RUPTURE CURED.

We would advise all those of our readers suffering of Rupture to carefully peruse the card of the MAGNETIC ELASTIC TRUSS COMPANY, in another column of this paper. As to the admirable effect of these Trusses, which have proven themselves the only efficient ones, we print the annexed testimonial, which speaks for itself.

SAN FRANCISCO, September 25th, 1876.

I would state that I have been ruptured for nearly three years, and have worn various kinds of Iron and Steel Trusses, without any benefit. I saw an advertisement of the MAGNETIC ELASTIC TRUSS CO.; called on them on the 28th day of July, six weeks ago, and now, on the 25th day of September, 1876, after wearing the MAGNETIC ELASTIC TRUSS only six weeks, I am astonished and delighted to find myself perfectly well. If any person should have told me two months ago that I could be cured, I would have laughed at them. D. ALEXANDER, 809 Jackson St., S. F.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER,

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Blank Books Ruled, Printed, and Bound to Order

New Publications.

THE FAMILY MEMORIAL is the name of a handsome publication which will be welcome in every home. It is a comprehensive work which enables any one who can read and write to keep a creditable record of the most interesting and important events in the life of each member of the family, and present, in the most approved form, the lineage of the family as traced from the parent stock. The plan of the work embraces two general departments —the individual family record and the genealogical record, with their respective subdepartments, instructions, illustrations and appendix. After the customary title page is a special title page, with blanks to be filled with the name of the owner, which appropriates the work to his private use. This is followed by a dedication, which by simply appending the parents' names becomes a special dedication by them to their posterity. The sub-departments of the work comprise a family album for portraits, pages for the records of births, marriages and deaths. One of the most notable features is the department for biography, embracing 125 pages, which, filled according to printed instructions, will furnish a fund of interesting and important incidents and events, for reference in establishing facts, dates, etc. Genealogy, the second general department, then succeeds, arranged for statistics of the paternal ancestors, the maternal ancestors, the most approved method for the genealogical record, and a genealogical chart, with explicit instructions, which are supplemented and illustrated in the appendix by a genealogical record and chart of the family of George Washington, tracing his lineage for 10 generations, and accompanied by appropriate statistics. The appendix further contains an article on heredity, an essay on heredity of character, by the Rev. W. H. Platt, of San Francisco. A treatise on consanguineous marriages, or the intermarriage of relatives, from the works of the eminent scientist, Th. Ribot, recently translated from the French, and closes with a rule and comprehensive calendar for determining the day of the week on which a birth or any event occurred, the year, month and day of the month being known. The whole embraces 230 pages, quarto size, elegantly printed on extra fine, heavily-calendered paper, with red line border, and illustrated with original and characteristic designs, copies from noted paintings, initials and headings executed by leading artists in the best style of the art. The book is sold only by subscription, and further information can be obtained from William H. Shepard, 5 Post street, S. F.

HYATT'S HAND BOOK OF GRAPE CULTURE has just been re-issued in a revised and enlarged edition by A. L. Bancroft & Co., S. F. T. Hart Hyatt, the author, is one of our earliest and ablest agricultural writers, and his hand book on grape culture is worthy of him. It contains full and explicit notes on all matters pertaining to the subject, from the conditions favorable to vine growth, through all the intricacies of laying out a vineyard and subsequent care of the vines, down to the preparation of the grapes for the bottle or the market. There are also full descriptions of the best varieties of grapes, and lists for special purposes. The appendix to the work contains the matter which has been prepared for the new edition. It describes the extent of the grape interest of the State and gives supplemental lists of the best varieties to cultivate. The great progress which is now being made from season to season in the manufacture of raisins is hinted at, but the constant development of the subject has already passed far beyond the book. These matters of fresh news may be best learned from our weekly pages, but the book, containing as it does the bottom facts of grape culture, will be found of constant value as a basis upon which to build the structure which is so rapidly advancing. The book may be had from the publishers as named above.

WE receive from Payot, Upham & Co., 204 Sansome street, S. F., the latest novel by Julia Pardoe, entitled the "Confessions of a Pretty Woman," published by the Petersons, of Philadelphia. It is said to be a captivating story by those who have read it.

PIE-MELON PIE.—Because the RURAL PRESS gave a civil answer to a correspondent who wrote asking how to make a pie-melon pie, the Contra Costa *Gazette* treats us thus: "When apples and other good fruit was not to be had for pies a California house-keeper was excusable in experimenting with so miserable a substitute as the pie-melon; but, with the abundance of fine fruits we now have, the PRESS deserves censure for the encouragement it lends to the waste of time and good materials in making what at best can be only a wretched imitation of an apple pie." The PRESS deserves censure for nothing. When a reader asks us a fair question we give as good an answer as we can. We do not give a character to the information We believe the querier is the best judge of the value of the information he desires. If a reader should ask us how to make a whistle out of a pig's tail we should tell him how and leave the question of the value of the whistle to the county assessors.

General News Items.

A THREE days' battle last week resulted in a victory for the Turks.

THE fire in the Wellington mine, British Columbia, is reported extinguished. The damage is great.

THE French senate have voted 6,000,000 francs toward the construction of a building for a world's fair, to be held in Paris in 1878.

H. C. BENNETT, the defaulting pension agent, arrived here from Colorado on Saturday in charge of a deputy United States marshal.

A DISPATCH from Rome says all the cardinals residing abroad are expected there to discuss the important propositions offered by the congregations.

IT is announced that the British government intend to present St. George's house, at the Centennial grounds, to the city of Philadelphia at the close of the exhibition.

THE operative cotton spinners of Blackburn have decided to withdraw their notices, and practically the dispute in north and northwestern Lancashire, England, is at an end.

THE taxes of 1876-77 in this county are now payable. The rate is $2.12½, which is unusually high. After the first Monday in January 5 per cent. will be added on all taxes then unpaid.

DR. WILLIAM T. LUCKY, who died in this city on Saturday, was well known in educational circles in California, having been for a number of years principal of the State normal school, and latterly principal of the Los Angeles high school. His age was 55 years.

THE residence of the late W. C. Ralston, at the corner of Pine and Leavenworth streets, it is said, has been leased to a New York firm for a term of years, and that it is the intention of the new lessees to refit it with furniture similar to that of the Palace hotel, and utilize it as a large boarding house.

THE sub-treasury in this city on Tuesday disbursed $45,000 in silver coin. The silver was not paid out in the redemption of greenbacks or fractional currency, but paid in part liquidation of checks against the Government. The amount of silver paid was 25 per cent. on on each check.

MATERIAL for the construction of a new lighthouse at Point Bonita—on the extreme south point, where it will be visible to vessels entering the harbor during foggy weather, is now being conveyed to the point in a schooner. The congressional appropriation for the work amounts to $25,000.

A CALCUTTA dispatch to the *Times* states that the prospect for crops in Bombay becomes daily more gloomy. Seven districts, containing a population of nearly 6,000,000, are threatened with severe distress. The local government estimates that over 200,000 persons must be relieved in these districts alone. It is stated that the Monsoon crops have entirely failed, and the absence of rain prevents the collection of the rubber and winter crops. The collector of Poonah reports that not a single blade of grass is visible for miles. Tanks and rivers are drying up and cattle dying from starvation. The collector at Singapore gives a still worse report. The government has opened relief works, and is employing people in excavating tanks and making roads.

RECLAMATION OF DRIFTING SANDS.—Some successful experiments, says the New York *Times*, have recently been made along the west coast of France in reclaiming the drifting sands and sand-hills and planting them with timber. The method employed was to sow down the sands with seed of *Calamagrostis arenaria*, a grass which is not easily smothered by being covered with sand. In some cases this grass has successfully resisted a gradual covering of sand ten feet in depth, and sprouts freely from the surface while its roots are buried thus deeply. Along with the grass seed broom or gorse is sown and the seed of pitch pines. To protect the surface, cut branches of brushwood are laid down, overlapping, like scales of a pine-cone, or shingles, and pegged firmly with stakes. When the grass and broom start to grow they shelter the young pines, and after four or five years the reclamation is perfected. The increase in value of the lands thus improved is gradual, until after twenty-five years an income is yielded by the thinnings of the timber and the production of turpentine. Not the least item of profit is the protection of lands near the coast previously subject to injury by being overwhelmed with drifted sand.

SILK MARKET.—The N. Y. *Commercial Advertiser* says: The silk market has changed but little within the last month or so, though there is considerable anxiety respecting the future, as prices in China are constantly advancing. The receipts at this port have been recently from 250 to 350 bales by each steamer, which have been quickly taken into consumption. Out of 394 bales just arrived from the steamer *Oceanic*, per Pacific railroad, about one-half was sold before arrival. Some parcels of usual reel Canton and usual reel Teatlees have been received from London and sold, mostly to arrive, immediately on landing at full rates. The condition of the London and Lyons markets renders it difficult to procure silks from either source. Manufacturers adhere to their resolution not to accumulate stock at present rates, and are buying only to supply their actual needs.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

FOR WEEK ENDING OCTOBER 17TH, 1876.

SEWER TRAPS.—Thomas Gnerin, S. F.

BOTTLE AND CUP STOPPERS.—Carlton Newman, S. F.

EXCAVATOR AND DUMPING CARTS.—Jacob Price, San Leandro, Cal.

PLASTER CEILINGS, CORNICES, ETC.—Thomas P. Cleary, S. F.

PROCESS OF REFRIGERATION.—Robert H. Lucas, S. F.

WATER METERS.—Sebastian Plymale, Portland, Ogn.

——*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

Notices of Recent Patents.

Among the patents recently obtained through Dewey & Co.'s SCIENTIFIC PRESS American and Foreign Patent Agency, the following are worthy of mention:

ANTI-CONTAGIOUS COFFIN.—Samuel Rodgers, M. D., Los Angeles. The object of this invention is to provide an improvement in coffins for the burial of the dead, and it is called an anti-contagious coffin. It consists in constructing a perfectly tight wooden coffin somewhat larger than is necessary to receive the body. The inside of the coffin is lined with wire gauze cloth, which is retained at a short distance from the sides, ends, top and bottom, so that the space can be filled with an anti-contagious compound, after which the usual linings and trimmings may be put on and the cover fitted hermetically. The interior of this coffin is coated with a composition which is entirely impervious to water, air or gas. This composition is an invention of Dr. Rodgers. The space outside the wire is filled with a mixture of seven-eighths wood charcoal, well burned and finely pulverized, and one-eighth oxide of calcium, well burned and pulverized. A soft rubber band is glued upon the upper edge of the coffins, and when the lid has been screwed down all will be both water and gas-tight. By this construction, when this is done, there is no danger of contagion from the escape of noxious gases or from the fouling of wells in the neighborhood of cemeteries.

HINGE JOINT.—Menzo Spring, San Francisco. This invention, while susceptible of a wide range of applications, is more especially adapted to the needs of that class of hinge joints which are employed in artificial legs at the knee joint or articulation, where the combined qualities of lightness and strength to resist the usual strain on such parts and a distribution of bearing and wearing are essential to obviate and overcome the constant wear by friction, are a great desideratum; or, if in case the difficulty be not entirely overcome, a means is afforded whereby a repair may be readily effected without injury to the artificial leg or joint. As joints of this class are apt to become worn by the constant use to which they are subjected, a split is formed on the hub through which one end of a thin flat wire (equal in thickness to the portion worn away), may be inserted, and such wire is then bent half way around the opposite end of wire inserted in the opposite split, thus effectually rendering the joint tight.

WATCH CHAIN.—John J. Rohrbach, San Francisco. This invention relates to certain improvements in the construction of link watch chains, and it consists in a novel formation of the links, which are united so that when either of two opposite sides are presented to view it will give the appearance of a heavy bar-link gold chain, but when turned so that the other sides are exhibited the appearance of a quartz or other ornamental setting will be given. The invention also relates to a novel construction of the link and an ornamental hand, so that the link may have an opening at the side for the convenient introduction of the small joining links.

OPERATING ELEVATOR VALVES.—Philip Hinkle, San Francisco. This invention relates to a novel device which may be employed to operate elevator and other valves when it is necessary to open one and close another valve at the same time. It consists of a slotted segment formed on different curves, and the stems of the valves are moved by this slot. The outer edge of the segment is provided with teeth, and a pinion mounted upon the axle of an operating rope pulley seems to turn the segment in either direction as the case may require.

CALIFORNIA MILITARY ACADEMY.—In our advertising columns may be seen a view of this well known school for young men. It is beautiful for situation and famous for its excellence of instruction and discipline. The patrons of the institution are its firm friends and speak strongly in its favor. We can heartily recommend the academy as worthy the attention of those who have sons to educate.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

FIRE AT GILROY.—A dispatch from Gilroy Tuesday says: "The most destructive fire we have ever had occurred last night. The alarm was given about 10:45, and the fire proved to be in the cigar factory building of the Consolidated tobacco company. Every effort was made to save it, but proved futile, and by 3 o'clock only the smoldering ruins remained. Beyond doubt it was the work of an incendiary, kerosene being found freely distributed through the entire building, and the floors and goods thoroughly saturated with it. Loss about $200,000; amount of insurance not known." At Gilroy the Consolidated tobacco company had a large fire-proof brick building three stories in hight. On account of expected bad weather the whole tobacco crop of 1875, which has been going through various processes of curing during the past summer, had but just been moved to the factory, being worth alone about $50,000. This was entirely destroyed, besides about $100,000 worth of other material in the shape of cigars, etc. This large amount of material cannot be replaced before 1877, and entails a loss upon the company of over $150,000. Only two more loads of the tobacco was to be moved, when the whole would have been insured, but as it is, the whole is a dead loss to the company. The building cost $40,000. The tobacco crop of 1876 is very promising and will be harvested in January. The total loss is about $200,000. The insurance amounts to $63,000, which is divided among 12 companies.

KILLING SQUIRRELS.—George Hobler, of Lakeside, Tulare county, informs us that he has been very successful in killing squirrels with summer squash and strychnine as a bait and poison.

CALIFORNIA FARMERS' MUTUAL

Fire Insurance Association,

No. 38 California Street,

(GRANGERS' BUILDING,)

SAN FRANCISCO, CAL.

Capital..... ..... $200,000 00
Assets, October 15, 1876..... 268,716 52

MUTUAL PLAN.

	AMOUNT.	PREMIUMS.
Risks written to Oct. 1, '76...	$5,181,591.00	$114,445.57
Less Amount Canceled.....	300,644.00	6,297.50
Amount in force, Oct. 1, '76..	$4,880,947.00	$108,148.07
Losses paid.....	$7,251.00	

CASH PLAN.

	AMOUNT.	PREMIUMS.
Risks written to Oct. 1, '76...	$2,585,914.19	$51,606.96
Less Canceled and Expired...	976,908.00	$19,538.16
Amount in force, Oct. 1, '76...	$1,609,006.19	$32,068.80
Losses paid.....	$10,153.71	

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S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Wednesday, Oct. 25th, 1876.

The excitement in the markets, which was foreshadowed in our last review, culminated on Friday, when the Liverpool cable prices for Wheat reached their highest point. As the report of immediate war was somewhat premature, and as it became apparent that more time would be devoted to deliberation by the contending parties, the markets quieted and the condition is now one of expectancy and gives prices a momentary weakness. The prices which we give for Wheat to-day are liable to sndden elevation, if the news comes of the certainty of war. It will be seen below that the cable has fallen 1d@2d from the highest point of the week.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	Cal. Average.			Club.		
Thnrsday.....	10s	3d@10s	6d	10s	5d@10s	8d
Friday.....	10s	6d@10s	8d	10s	9d@11s	1d
Satnrday.....	10s	6d@10s	8d	10s	9d@11s	1d
Monday.....	10s	6d@10s	8d	10s	9d@11s	—
Tuesday.....	10s	4d@10s	7d	10s	7d@11s	—
Wednesday....	10s	4d@10s	7d	10s	7d@11s	—

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.			Club.		
1874	9s	11d@10s	3d	10s	4d@10s	9d
1875.....	11s	—@11s	4d	11s	4d@11s	9d
1876.....	10s	4d@10s	7d	10s	7d@11s	—

The Foreign Review.

LONDON, October 23d.—The *Mark Lane Express*, in its review of the British Corn trade for the past week, says that the land has become so sodden with the recent rains, that the greatest difficulty has been experienced in autumn tillage. It is now most important that the sowing of winter wheat be no longer delayed. The effects of the past three weeks of wet weather has been most disastrous in the North, where the wretched condition of the outstanding crops has been further deteriorated by heavy floods, which have submerged considerable tracts of land and done irreparable damage. It is also much to be regretted that the damp atmosphere and higher temperature have tended to a general blight in the potato crop, and the disease has not been confined to Scotland, where the rain has done the most mischief, but several districts in England speak of its recent appearance. The rapid growth of root crops has rendered the prospect of abundant winter feed more hopeful, although such an excess of moisture can scarcely tend to improve the quality. The weighty authority of Mr. Laws confirms the opinion that our probable requirement during the cereal year will be 14,000,000 quarters, while imports since September 1st have been at the rate of 8 000,000. On these figures the recent advance seems justified, apart from the political contingencies which have both quickened and stimulated it. In the present disturbed condition of affairs, it is almost impossible to quote the local trade with any degree of accuracy. Sellers are not disposed to let Wheat go except at an improvement of 2@3s per quarter, but for the moment buyers act with considerable caution. There has been a limited amount of business in floating cargoes during the week, owing to the scarcity of arrivals, and sales indicate an improvement of 1@2s per qnarter, while important transactions have taken place in cargoes on passage and for shipment at fully this advance.

The Chicago Grain Market.

CHICAGO, October 22d.—The past week has been one of more than usual interest and excitement in the Wheat market. Cash No. 2 spring Wheat sold early in the week for $1.08¾@1,09; bnt later, upon receipt of war-like uews from Europe, the market became excited and rapidly advanced to $1.17. From that point it gradually declined, under more favorable European advices, and closed steady at $1.09¾@1.10. Trading has been chiefly speculative, although a good shipping demand also prevailed. Receipts for the week were 725,000 bushels; shipments, 325,000 bnsheis. Corn has also shared in the prevailing exoltement, and an active speculative businees was transacted, with frequent and severe fluctuations in values, the outside range being 42¾@45¾c, ceasing at 43¾. The governing influences were about the same as noted in Wheat, and values followed closely the fluctuations and changes in the price of that oereal.

Freights and Charters.

During the past week, says the *Commercial News*, the freight market has been at a standstill. At the close the practical opening of hostilities between Turkey and Russia caused a sharp advance in Wheat here and in England, and effectually stopped what little demand for tonnage before existed. The arrivals have been very large since our last, embracing nearly all the vessels due at this port. As will be seen below, the disengaged list has been largely increased, while the arrival of chartered vessels has nearly kept pace with the clearances, leaving the total amount of engaged Wheat tonnage in port approximately the same. Disengaged tonnage is very firmly held at full figures. At the close we have 74,556 tons in port under engagement to load Wheat, 36,812 tons disengaged, and 4,878 tons miscellaneons. The latest charters reported are: shlp Rosie Welt, 1436 tons, Wheat to Antwerp, £3 5s, Liverpool or Havre, £3 2s 6d, Cork for orders either of the three, £3 7s 6d, prior to arrival; ship Tabor, 1339 tons, Wheat to Liverpool, prior to arrival, £3 2s 6d; Br ship Cape Sable, 1416 tons, Wheat to Liverpool, prior to arrival, £3 5s; Br ship John O'Gaunt, 1327 tons, Wheat to Cork for orders, prior to arrival, private; ship Robert Dixon, 1368 tons, Wheat to Cork for orders, prior to arrival, private; Br ship Star of India, 1045 tons, Wheat to Liverpool, prior to arrival, £3 2s 6d, Cork, U. K., £3 5s; Br shlp City of Glasgow, 1168 tons, Wheat to Liverpool, prior to arrival, £3 2s 6d; Br ship New York, 2,688 tons, Wheat to Liverpool, owner's account; Br ship Horsa, 1094 tons, Wheat to Liverpool, prior to arrival, £3 7s 6d; Br ship City of Benares, 1187 tons, Wheat to Liverpool, prior to arrival, £3 2s 6d.

Eastern Wool Markets.

NEW YORK, October 21st.—In the Wool market this week there has been considerable speculation; large sales of fleece having been made to parties outside the trade, and manufacturers, also, having purchased quite liberally, the market has presented a good degree of activity, and full previous prices are firmly demanded. A feeling of the greatest confidence exists as to the future market. Holders are reluctant sellers, while buyers share in the belief that higher ranges are more probable than lower, and therefore show more disposition to meet holders' views than formerly. The position of the market to-day is exceedingly favorable for holding, and this fact is recognized by all who possess any quantity of the staple. In foreign there is but little doing. There is, however, some inquiry from Canadian manufacturers. Sales of the week are: 164,000 lbs spring California, slightly burry, at 20@25c; 75,000 lbs free fall do, 18@21c; 13 bags scoured do, 57@60c; 5 000 lbs California lambs', 22c; 4,000 lbs do pulled, 19c; 3,000 lbs Oregon, 27c; 7,500 lbs Western Texas, 16@18c; 28,000 lbs improved do, 21@23c; 2,000 lbs Eastern do, 24@25c; 300,000 lbs nngraded Ohio fleece, at or about 42½c; 40,000 lbs XX do, 45c; 60,000 lbs combing and delaine do, 45@50c; 22,000 lbs unwashed combing do, 35c; and 200 bales Cape, 74,700 lbs Donskoi, 13,000 lbs domestic Noils, 10.000 lbs fine Oregon, 2,000 lbs coarse do, 2.000 lbs Georgia, 5,000 lbs XX Ohio, 10,000 lbs unwashed Combing do, 646 bags super pulled, 150 bags old X do, 64 bags short do, and 17 bags No. 1—all on private terms.

BOSTON, October 21st.—Wool is in active demand, above expectations, and includes a fair assortment of all grades. Fine fleeces are most songht after. Sales of Ohio and Pennsylvania have been: 559,500 lbs X at 40@42c, medium and No. 1 at 40@42½c; XX at 44½@46c. There is very little good XX to be had under 47½c, 45c being offered and refused. Sales of Michigan have been 102,000 lbs at 38@40o, and 152,000 lbs Wisconsin medium and X sold at 38@39c. The market is quite firm at these prices. Combing and delaine have been more sought after, and are held firm. Sales have been 202,000 lbs fine delaine at 45@47½c; choice medium combing at 54@55c. Pulled is in steady demand, with prices firm. Sales of 130,000 lbs super and X at 32@44c; choice Maine super, 44c; Eastern super, 40@44c. The interest in California continues without abatement. Fall is coming forward freely, and meets with ready sales. The balance of the spring clip on hand is rapidly disappearing. Sales of 727,000 lbs spring at 20@29c; fall at 15@25c.

Domestic Produce,

The following table shows the S. F. receipts of Domestic Produce for the week ending at noou to-day, as compared with the receipts of previous weeks:

Articles.	Week Oct. 4	Week Oct. 11.	Week Oct. 17.	Week Oct. 25.
Flonr, quarter sacks	43,410	84,677	34,972	42,711
Wheat, centals.....	485,903	404,408	424,611	433,997
Barley, centals.....	369,475	82,457	83,491	53,119
Beans, sacks.....	1,966	1,940	2,224	2,584
Corn, centals.....	2,911	4,253	1,742	2,998
Oats, centals.....	20,702	7,694	3,846	3,091
Potatoes, sacks.....	16,685	17,901	13,970	16,490
Onions, sacks.....	1,123	1,560	2,232	1,859
Wool, bales.....	8.186	8,337	6,619	8,383
Hops, bales.....	1.162	794	522	989
Hay, bales.....	2,017	1,881	1,733	1,379

Bags—We quote Wheat Bags much lower thle week. The decline is doubtless attributable to the anticipation that the stock of the bankrupt firm of dealers, noted last week, will come upon the market. It is not yet decided whether this etock will be offered or not, but the firm holds five or six millions bags and their overhanging the trade has a depressing effect.

Barley—Brewing Barley is firm and active, and for best selections is improved in price. The demand is for export. We note the following sales of all descriptions: 600 sks bright Coast Feed, 95c ₱ ctl, silver; 250 do good do, 92½c; 1000 ctls extra choice Bay Brewing, for local consumption, $1.17½, gold; 1200 sks Coast Feed, 90c; 200 do do, 92½c; 1800 do bright do, 92½c, all silver; 1000 do Browlng, $1.08¾; 3000 ctls Bay do, $1.10 @$1.12½, gold; 400 sks Coast Feed, 92½c; 500 do Coast Brewing, 95c, both silver; 1200 ctls Coast Brewing, $1.02½; 1000 do Bay Brewing, $1.10; 1200 do do, $1.12½; 1200 do do, $1.15, all gold; 1200 sks Coaet Brewing, $1.02½; 1200 do choice do, $1.12½; 1200 do do, $1.15; 2500 sks very choice Bay Brewing, $1.17½, includiug free storage for the season; 4000 sks Coast Brewing, $1, gold; 400 do good Coast Feed, 95c; 1200 do dark do, 90c, both lots silver; 5000 sks Brewing, $1.10, for local use: 400 sks, 95c ₱ ctl; 110 tons, $1.10; 60 do, $1.12½, and 60 do, $1.15 ₱ ctl.

Beans—Some kinds are advanced in price, as shown by our quotations below.

Buckwheat—We note sales of 200 sks in lots at 2½@3o ₱ lb.

Corn—Corn is quiet and unchanged in price, except for large kinds, which tend downward. We note sales: 200 sks small Round, $1.15, silver; 100 sks large White, $1.12½; 200 do small Round, $1.15, both silver; 300 sks large Yellow, $1.15, silver; 500 sks small Yellow, in two lots, $1.15, silver; 150 sks large White, $1 17, silver.

Dairy Produce—Prices are generally unchanged. Butter is still selling at a considerable range in price. Cheeae is unimproved as yet, although holders are looking for better prices. We hear of improved figures being obtained for some which has sold low, bnt the outside prices cannot be advanced.

Eggs—Fresh Eggs are unchanged.

Feed—Hay still ranges from $7.50 to $13.50 as to quality, with perhaps a poesible $14 for something extra choice in Wheat Hay. We note sales of 40 tons of Wild Oat and Barley at $11, 500 bales Oat and Barley at $10@12. Ground Feed is unchanged, except Middlings, which now rate from the mill at $22.50.

Fruit—Grapes are advanced 1u price for nearly all kinds. The first Los Angeles Lemons have just arrived, but no price is made as yet.

Hops—Local prices are as yet unchanged. We note sales of 100 bales at 26@28c; 30c is noted as an extreme. Emmet Wells reviews the New York market for the week ending Oct. 13th as follows:

"The market has quieted down considerably this week, though the volume of busiuess, both for export and consumption, is still large. Holders of choice goods are as firm as ever in their views as to values, believing the scarcity of such will aloue be sufficient to sustain the price Medium and inferior grades meet with no favor whatever, either from shippers or from brewers, and prices for such are entirely nominal. Although a few of our early shipments to Germany have been reported favorably by cable, exporters are not yet entirely satisfied, and are waiting mail advices to learn exactly now the first shipments were received and what will be the chauce of an extended business."

Oats—Oats are in good reqnest and sales have been made at full prices. We note sales: 120 tons milling at $1.80; 300 sks Coast Feed at $1.62½, half silver; 300 sks common Feed, $1.60; 200 sks Black at $1.55; 300 ctls Black, $1.55; 200 sks Feed, $1.62½; 450 sks Milling at $1.80, gold; 160 ctls do, $1.80, half silver; 110 sks Feed, $1.42½, silver, per ctl.

Onions—Onions are still lower, 55@60o being the range.

Potatoes—Potatoes have advanced in price. The first Petalumas have been sold on the wharf at $1 per ctl. Half Moon Bays have sold at 75c@$1; Onffey Coves, $1.20@1.27½. Sweet Potatoes are greatly depressed, selling to-day at 37½@62½c per ctl.

Poultry and Game—Hens and Roosters are a point lower. Quail are lower, quotable at $1.25@1.50.

Provisions—Fresh Beef is abundant and market overstocked, particularly with lower grades. Mutton is firmer under combined action of wholesale butchers. Po rk somewhat lower from large arrivals. The demand for cured Meats is large, and prices are about the same as on last report.

Rye—There have been sales of 200 sks choice at $1.55, silver.

Vegetables—Prices are generally unchanged.

Wheat—The Wheat market is to-day inactive and somewhat weak in tone, in view of uncertainties. The latest sales to-day have been 400 tons Shipping at $1.70, and 400 tons fair shipping, $1.60. Small lots have sold to millers at $1.75@1.77½. Other sales during the week have been as follows: 4,000 sks choice Shipping, $1.80; 1,100 sks Superfine, $1.60; 1,900 do do, $1.55; 400 do inferior, $1.40; 1,200 sks Milling, $1.70; 3,0.0 ctls Shipping, $1.67½; 800 do poor do, $1.65; 400 ctls Inferior, $1.60; 2,400 do Superfine, to be delivered at Oakland wharf, $1.65; 2,000 do do in warehouse, with free storage for the season, $1.70; 300 sks Milling, $1 70; 2,500 do Shipping, $1.70; 200 sks good Milling, $1.75; 1 400 do good Shipping, $1.70; 400 do Sonora, for cracked wheat, $1.90; 800 sks poor, $1.60; 3,000 do Shipping, $1.67½; 1,000 do choice do, $1.80; 1,200 do good Milling, $1.70 per ctl.

Wool—Wool prices are unchanged. We note sales of 213 000 lbs at a rauge of 13@21c.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., Oct. 25, 1876.

BEANS.

Bayo, ₱ ctl.....	2 25	@	2 75
Butter.....	2 00	@	2 25
Pea.....	2 00	@	2 50
Pink.....	2 50	@	2 75
Sm'l white.....	2 00	@	2 10
Lima.....	1 90	@	2 00

BROOM CORN.

Common, ₱ lb..	2	@	2½
Choice, do ..	3	@	4

COTTON.

Cotton, ₱ lb.....	15	@	18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	30	@	45
Point Reyes.....	47½	@	50
Pickle Roll.....	32½	@	35
Firkin.....	25	@	30
W'st'n Reserve.	16	@	25
New York.....	—	@	—

CHEESE.

Cheese, Cal., lb..	10	@	15
do Old.....	—	@	—
Eastern	12½	@	15

EGGS.

Cal. fresh ₱ doz	45	@	47½
Ducks'.....	40	@	—
Orezon.....	37½	@	—
Eastern.....	21	@	30

FEED.

Bran, per ton....17	00	@	—
Corn Meal.....27	50	@	—
Hay.....	7	00	@13 50
Middlings 22	50	@	—
Oil cake meal...—	—	@33	50
Straw, ₱ bale...	55	@	60

FLOUR.

Extra ₱ bbl....5	00	@5	75
Superfine.....4	50	@5	00
Graham, ₱ bbl..4	50	@4	75

FRESH MEAT.

Beef 1st quality lb.	4½	@	6
Second do	3½	@	4½
Third do..	2½	@	3½
Mutton.....	4	@	4½
Pork, undressed	6	@	6¼
do, dressed....	8¾	@	9¾
Veal.....	5½	@	6
Milk Calves.....	5½	@	7

GRAIN, ETC.

Barley, feed ctl—	80	@	1 00
do hrewing.	1 05	@	1 11½
Chevalier.....	1 30	@	1 40
Corn, White...	1 12½	@	1 20
do Yellow....	1 15	@	1 20
Oats.....	1 40	@	1 65
Milling.....	1 70	@	1 85
Rye	1 50	@	1 55
Wheat shipping	1 60	@	1 75
do milling..	1 70	@	1 80

HIDES.

Hides, dry.....	15	@	15½
do wet salted	5½	@	7

HONEY, ETC.

Beeswax, per lb..	25	@	27½
Honey in comb..	10	@	12½
do Strained....	6	@	8

HOPS.

New crop.....	25	@	28

NUTS—Jobbing.

Alm'ds h'd sh'l lb	8	@	—
do, soft sh'l...	14	@	16
Brazil do.....	14	@	16
Cal. Walnuts....	12	@	14
Chile Walnuts..	11	@	12½
Pecanuts.....	17	@	18
Peanuts per lb..	8	@	9

Filberts.....	15	@	16

ONIONS.

Union City ctl.	—	@	—
Stockton	55	@	60

POTATOES.

Petaluma, ₱ ctl.	—	@	—
Salt Lake.....	—	@	—
Humboldt.....	—	@	—
Half Moon bay..	75	@1	00
Onffey Cove...	1 20	@1	27½
Early Rose new	60	@	75
Sweet.....	37½	@	62½

POULTRY & GAME.

Hens, per dz..	7 00	@8	00
Roosters.....5	00	@6	00
Broilers.....3	50	@4	50
Ducks, tame, dz	7 00	@9	00
do Muscovy...8	00	@	—
do Canvass....	—	@8	00
Geese, per pair	2 00	@2	50
Wild Gray dz.	3 00	@4	00
White.....	1 50	@2	00
Turkeys, Live, lb	16	@	18
do Dressed....	18	@	20
Quail, per doz..	1 25	@1	50
Snipe, Eng., doz.	1 75	@2	00
Doves, per dozen	50	@	57
Rabbits.....	1 00	@1	25
Hare, per doz...2	00	@2	00
Venison lb	7	@	10

PROVISIONS.

Cal. Bacon, L't, lb	16	@	16½
do Medium ...	15	@	15½
do Heavy.....	—	@	15
Lard.....	14	@	16
Cal. Smoked Beef	12	@	12½
Eastern do....	—	@	—
East'rn Shonld's	—	@	12
Hams, Cal.....	15	@	15½
do Armour	—	@	—
do Worster's	—	@	19
do Dupee's..	19	@	19½
do Davis Bros'	—	@	19

SEEDS.

Alfalfa, Chile lb.	8	@	10
do California.	11	@	12
Canary.....	9	@	10
Clover Red.....	—	@	22
do White	50	@	55
Cotton.....	6	@	10
Flaxseed.....	—	@	3½
Hemp.....	12½	@	—
Italian Rye Grass	25	@	30
Perennial do....	20	@	30
Millet.....	10	@	12
Mustard, white.	5	@	6
do. Brown.....	3	@	3½
Rape.....	5	@	8
Ky. Blue Grass..	30	@	—
do 2d quality..	29	@	—
Sweet V Grass..	—	@	75
Orchard do....	30	@	35
Red Top do....	—	@	25
Hungarian do	8	@	12
Lawn do.....	50	@	—
Mesquit do...	20	@	25
Timothy.....	11	@	13

TALLOW.

Crude, ₱ lb.....	6¼	@	6½
Refined	8¾	@	9

WOOL, ETC.

FALL—

Free.....	12	@	14
Choice..	14	@	16
Northern.....	17	@	20
Burry	10	@	13
Oregon Eastern..	20	@	—
do Valley.....	25	@	—

LEATHER.

[WHOLESALE.]

WEDNESDAY M., Oct. 25, 1876.

Sole Leather, heavy ₱ lb			25@2
do do light ₱ lb.....			0 @2
Jodot, 8 Kil., per doz	48	00@	50 00
Jodot, 11 to 13 Kil., per doz.....	68	00@	79 00
Jodot 14 to 19 Kil., per doz.....	82	00@	94 00
Jodot, second choice, 11 to 16 Kil. ₱ doz.	57	00@	74 00
Cornellian, 12 to 16 Ko.....	57	00@	67 00
Cornellian Females, 12 to 13.....	63	00@	67 00
Cornellian Females, 14 to 16 Kil.....	71	00@	76 50
Simon Ullmo Females, 12 to 13, Kil.....	58	00@	62 00
Simon Ullmo Females, 14 to 15, Kil.....	66	00@	70 00
Simon Ullmo Females, 16 to 17, Kil.....	72	00@	74 00
Simon, 18 Kil., ₱ doz	61	00@	63 00
Simon, 20 Kil., ₱ doz.....	65	00@	67 00
Simon 24 Kil. ₱ doz.....	72	00@	74 00
Rohe Calf, 7 and 9 Kil.....	35	00@	40 00
French Kips, ₱ lb.....	1	00@	1 35
California Kip, ₱ doz.....	40	00@	60 00
French Sheep, all colors, ₱ doz.....	8	00@	15 00
Eastern Calf for Backs, ₱ lb.....	1	00@	1 25
Sheep Roans for Topping, all colors, ₱ doz....	9	00@	13 00
Sheep Roans for Linings, ₱ doz.....	5	50@	10 50
California Russett Sheep Linings.....	1	75@	4 50
Best Jodot Calf Boot Legs, ₱ pair.....	5	00@	5 25
Good French Calf Boot Legs, ₱ pair.....	4	00@	4 75
French Calf Boot Legs, ₱ pair.....	4	00@	—
Harness Leather, ₱ lb.....		24@	32½
Fair Bridle Leather, ₱ doz.....	48	00@	72 —
Skirting Leather, ₱ lb.....		33@	37½
Welt Leather, ₱ doz.....	30	00@	50 00
Calf Leather, ₱ foot.....		17@	⅝
Wax Side Leather, ₱ foot.....		17@	

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by SUTRO & CO.]

SAN FRANCISCO, Oct. 25, 3 P. M.

LEGAL TENDERS in S. F., 11 A. M., 91¾ to 91¾. Silver 53¾@6¼.

GOLD in N. Y., 109⅞.

GOLD BARS, 880 to 890. SILVER BARS, 12@20 per cent. disconnt.

EXCHANGE on N.Y., 50@55-100 per cent. premium for gold; on London bankers, 49; Commercial, 49¼; Paris, five francs per dollar; Mexican dollars, 7 per cent. discount.

LONDON — Consols, 93¾; Bonds, 102½

QUICKSILVER in S. F., by the flask, per lb, 45c

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., Oct. 25, 1876.

BAGS.

Eng. Stand Wht..	10	@	11
Neville & Co's... Hand Sewed....	10	@	11
24x36.....	—	@	—
24x40.....	—	@	—
Machine do 24x40..	—	@	15½
" " 23x40.	14½	@	—
" " 22x40.	13	@	—
" " 22x36.	9½	@	10½
Flour Sacks ¼s...	9	@	11
" " ⅛s.....	6	@	7
" " ⅛s.....	4½	@	5
Hessian 60-in.....	12¼	@	14½
do 45-in.....	10	@	—
do 40-in	8½	@	—
Wool Sacks, 3½ lbs.	45	@	50
do 4 ".	50	@	52½
Stand. Gunnies... single seam nc..	11½	@	12
Bean Bags.....	7	@	8

CANNED GOODS.

Asst'd Pie Fruits in 2½ lb cans.	2 75	@	3 00
do Table do...	3 75	@	4 25
Jams & Jellies	4 25	@	—
Pickles ½ gl..	—	@	3 50
Sardines, qr box	65	@	1 90
do hf boxes.	3 00	@	—

COAL—Jobbing.

Australian, ₱ ton	8 75	@	9 00
Coos Bay.....	—	@	9 00
Bellingham Bay.	—	@	9 00
Seattle.....	—	@	9 00
Cumberl'd.....	—14 00	@16	00
Mt. Diablo.....	5 75	@7	75
Lehigh.....	—	@22	00
Liverpool.....	8 50	@10	00
West Hartley...	—	@14	00
Scotch.....	9 00	@10	00
Scranton	.13 00	@16	00
Vancouver's Isl.	10 50	@	2 00
Charcoal, ₱ sk..	75	@	—
Coke, ₱ bbl.....	—	@	60

COFFEE.

Sandwich Island	—	@	21½
Costa Rica per lb	21½	@	—
Guatemala.....	20½	@	21
Java.....	—	@	24
Manilla.....	—	@	19
Ground in cs....	25	@	—
Unicorn...	27	@	—

FISH.

Sao. Dry Cod, new	5½	@	6½
cases..	6	@	7½
do boneless....	8½	@	10
Eastern Cod.....	8	@	9½
Salmon in hbls..6	50	@7	25
do ½ bbls	3 75	@4	00
do 2lb cans..	2 40	@	—
do 1lb cans.	1 50	@	—
do Col. R. ½lb.	4 25	@4	50
Pick. Cod, bbls.	22 00	@	—
do ½ bbls	11 00	@	—
Mack'l, No. 1, ½ bls	11 00	@	—
" extra....	—	@12	00
" in kits...	1 90	@2	25
" Ex mess.	3 50	@4	00
" Ex mcss. ½bs—		@12	00
Pio'd Herr'g, hx..	3 00	@	3 50
Sos. Sm'k'd Her'g	40	@	50

LIME, ETC.

Lime, S'ta Cruz, ₱ hhl.....	2 00	@	2 25
Cement, Rosendale, do.....	2 75	@	3 50
do Portland do	4 75	@	5 50
Plaster, Golden Gate Mills.....	3 00	@	3 25
Land Plaster, ₱ ton.....	10 00	@12	50

MISCELLANEOUS.

Pulu.....	—	@	7½

NAILS.

Assorted size, keg	3 25	@4	00

OILS.

Pacific Glne Co Neat F't No. 1.	1 00	@	90
Pure..	—	@	—
Castor Oil, No. 1.	1 05	@1	10
Baker's A A.....	—	@1	10
Cocoanut.....	—	@	60
Olive Plagniol..	4 85	@5	00
do Possel.....	4 45	@4	50

Palm lb.....	9	@	—
Linseed, raw....	—	@	65
do boiled.....	—	@	70
China nut in cs..	65	@	70
Sperm.....	2 00	@	—
Coast Whales .	60	@	65
Polar, refined..	—	@	60
Lard.....	1 15	@1	17½
Oleophine	—	@	37
Devoe's Bril't....	38	@	39
Eureka.....	32½	@	38
Barrel kerosene	32½	@	—
Downer Kerose'e	45	@	—
Elaine.....	—	@	42

PAINTS.

Pure White Lead	9¾	@10	1¼
Whiting	—	@	1¾
Putty	4	@	5
Chalk.....	—	@	1½
Paris White.....	—	@	2½
Ochre.....	—	@	3½
Venetian Red..	—	@	3½
Averill Chemical Paint, per gal. White & tints.	2 00	@2	40
Green, Blue & Oh Yellow..	3 00	@3	50
Light Red....	3 00	@3	50
Metallic Roof.	1 30	@1	60

RICE.

China No. 1.. ...	7¾	@	8
Hawaiian, ₱ lb..	7	@	—
Carolina. ₱ lb..	10	@	—

SALT.

Cal. Bay, per ton	10 00	@14	00
do Common..	5 00	@ 7	00
Carmen Island..	12 00	@15	00
Liverpool fine..	13 50	@16	50

SOAP.

Castile ₱ lb....	10	@	10½
Common brands..	4¾	@	6
Fancy do	7	@	8

CANDLES.

Grant's.....	16	@	16½
Mitchell's....	18	@	20

SPICES.

Cloves ₱ lb.....	45	@	47½
Cassia.....	23½	@	26½
Citron.....	28	@	30
Nutmeg.....	95	@	97½
Whole Pepper...	14½	@	14½
Pimento.....	16	@	17½
Gr'nd Allsp'rdz	—	@1	12
do Cassia do ..	—	@1	50
do Cloves do..	—	@1	50
do Mustard do	—	@1	20
do Ginger do..	—	@1	00
do Pepper do..	—	@1	00
do Mnce do...	—	@2	00
Bowen's Pure Ground ₱ lb	—	@	50

SUGAR, ETC.

Cal. Cnbe per lb..	—	@	12¾
Circle A crnshed	—	@	12
Powdered.....	—	@	12½
Fine crushed...	—	@	12¾
Granulated.....	—	@	11¾
Golden C.....	—	@	10¾
Hawaiian.....	10	@	11
Cal. Syrup in kgs	—	@	67½
Hawaiian Molasses.....	25	@	27½

TEA.

Oolong, Canton, lb	19	@	25
do Amoy...	28	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	40
do Pingsuey	45	@	80
do Moynne..	60	@1	00
Gnnpo'der, Cant.	75	@1	00
do Pingsney	50	@	90
do Moyune.	65	@1	25
Yng Hy., Canton	28	@	40
do Pingsuey	40	@	70
do Moynne..	65	@	80
Japan, ½ chests, bulk.....	30	@	75
Japan, lacquered bxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb bxs	45	@	90
do pi'n bx, 4½ lb	35	@	65
do ½ & 1 lb papcr	30	@	55

TURPENTINE.

Eastern.....	50	@	55

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., Oct. 25, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M.....	—	@	—
Tahiti, do	30 00	@35	00
Cal. do.....	—	@	—
Limes, Mexican, ₱ M.....

Seedsmen.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in



FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞Trade Price List on application.

*,*My "Gulde to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,

419 and 421 Sansome Street. S. F.

Seeds. Seeds.

IMPORTED.

Crosby's Extra Early, Marblehead Mammoth, Stowell's Evergreen, Mexican Sweet, New — Sweet Corn.

Early Canada, Early Dutton — Yellow Flint Corn.

Long Red Mangel Wurzel, Yellow Globe, White Sugar — Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,

No. 317 Washington Street,

v8-tf SAN FRANCISCO.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-1y

Nurserymen.

200,000

Australian Gum Trees For Sale,

—AT—

STRATTON'S GUM TREE FOREST NURSERY,

HAYWARDS, ALAMEDA CO., CAL.

These trees are from five to twelve inches high, transplanted regularly into boxes 30x20 inches square, weighing 150 pounds. 150 or 500 in each box, in splendid condition for transplanting to their permanent location. **Price, $6 to $12 per 1,000.** Will contract to plant the trees, or furnish superintendence, on low terms. Cash must accompany orders for less than $50, or if greater than that amount, city reference must be given. Address,

JAS. T. STRATTON,

East Oakland, Alameda County, Cal.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

H. K. CUMMINGS. 1858. — H. H. HALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer

GRANGERS' BUSINESS ASSOCIATION,

Incorporated Feb. 10th, 1875. Capital Stock, $1,000,000.

OFFICERS and DIRECTORS:

DANIEL INMAN, (PRESIDENT). R. C HAILE, (VICE PRESIDENT). JOHN LEWELLING, (TREASURER). AMOS ADAMS, (SECRETARY). THOS. UPTON. I. C. STEELE. O. HUBBELL. D. CAMPBELL. THOS. FLINT. G. P. KELLOGG. W. L. OVERHISER.

SHIPPING and COMMISSION HOUSE,

Grangers' Building, - - - - 106 Davis Street, S. F.

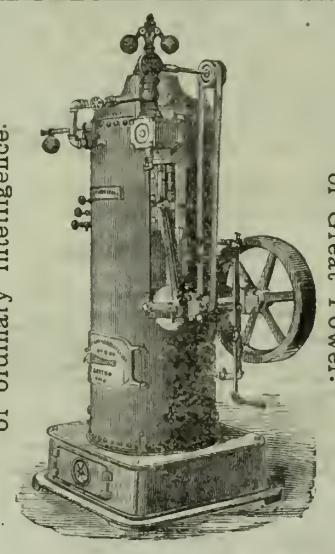
Consignments of Grain, Wool, Dairy Products, Fruit, Vegetables, and other Produce solicited, and advances made on the same. Orders for Grain and Wool Sacks, Produce, Merchandise, Farm Implements, Wagons, Etc., solicited and promptly attended to.

We do a strictly Commission Business, and place our rates of Commission upon a fair legitimate basis that will enable the country at large to transact business through us to their entire satisfaction.

Consignments to be marked Grangers' Business Association, San Francisco. Stencils for marking will be furnished free on application.

DANIEL INMAN, Manager.

It is a Beautiful design, Handsomely Finished, and can be operated by any one of ordinary intelligence.



It is Easily Managed; Simple in Construction; Noiseless in Operation; of Great Power.

THE TRADE ENGINE

Dimensions and Price List.

Trade size..	Horse Power..	Diameter Cylinder.	Stroke.....	Revolutions per minute.	Hight of Boiler..	Number of Tubes.	Weight.....	PRICE.
		In.	In.		In.		Lbs.	
1	2	4	5	300	52	20	1800	$ 500 00
2	4	5	6	250	60	31	1900	700 00
3	6	6	6	200	62	50	2700	900 00
4	10	7	8	180	84	52	4000	1100 00

The above prices include Boiler, Engine, Pump, Judson Governor, Steam and Water Gauges, Stop Valve, Safety Valve, Check Valve, Blow-off, Steam Exhaust and Feed Pipes, Oil Globe; a full set of fancy Oil Cups, Drain and Air Cocks. Everything complete, ready to run, except Smoke-stack.

MARCUS C. HAWLEY & CO.,

Sole Agents,

Nos. 108 & 110 Front Street, San Francisco

—AND—

CORNER SECOND & J STREETS, SACRAMENTO.

TESTIMONIALS.

SAN FRANCISCO, September 5th, 1876.

MESSRS. M. C. HAWLEY & CO.—*Gents:* The "TRADE ENGINE" we purchased of you in June last has given us thorough satisfaction in the running of our printing presses. The engine is now, and has always been tended by a boy of about 15 years, who knew nothing about an engine. From our experience, we cannot imagine any simpler piece of machinery than the "TRADE ENGINE," and do not believe that any other could give more satisfaction. We remain, very faithfully, yours,

"THE DAILY STOCK EXCHANGE," per Manager.

VIRGINIA, NEV., December 26th, 1875.

MESSRS. M. C. HAWLEY & CO., San Francisco—*Gents:* The four-horse "TRADE ENGINE," purchased from you in October last, has been running steadily ever since that time and gives the most perfect satisfaction I consider it reliable, safe, durable and economical; in fact, just the thing for use in printing offices or small manufactories. The engine runs fully up to its rated power. An important point in its favor is that it requires but little attention, any intelligent boy being competent to run and care for it.

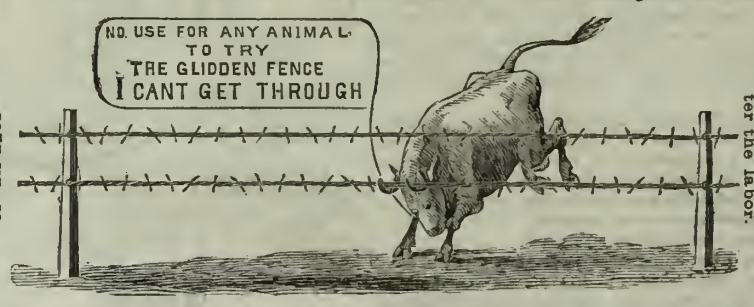
Respectfully, GEO. DALY, "Enterprise" Office, Virginia City, Nev.

SACRAMENTO, CAL., September 9th, 1876.

M. C. HAWLEY & CO.—*Gents:* We have been running a 10-horse "TRADE ENGINE" for nearly a year. It is doing work nearly up to its rated power. Works with very little noise, and with the right kind of fuel is an economical wood burner. We believe it to be one of the best of the upright engine class, very strong and durable. Yours, etc., H. S. CROCKER & CO.

After Nearly Three Years' Test, the STEEL BARBED FENCE WIRE, Patented by J. F. GLIDDEN, Stands Head and Shoulders Above all Competitors, and is More in Demand than all Other Barb Fences Put Together.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



About one-half the cost of any other good fence; and can be put up for one-quarter the labor.

OVER 800,000 POUNDS SOLD IN CALIFORNIA THE FIRST SEASON OF ITS INTRODUCTION. THE GLIDDEN PATENT BARB WIRE HAS BEEN TESTED BY THOUSANDS OF PRACTICAL FARMERS, WHO UNIVERSALLY RECOMMEND IT, AND IS SUPERIOR TO ALL OTHERS FOR THE FOLLOWING REASONS:

1. The wire is manufactured entirely from steel, which has a relative strength of 50 per cent. greater than of any common iron wire. 2. The only steel wire barb. 3. The only barb that cannot be displaced with thumb and finger or cattle's horns. 4. The only barb with prongs projecting from between the twisted wire and cannot be bent, broken or rubbed off, and never needs replacing. 5. The only coiled barb with broad base on main wire, which renders it immovable. 6. The only barb wire during process of manufacture its strength is tested equal to that of two-horse power. 7. The only barb put on with machinery. It is not pounded on with hammer and indented in main wire to hold it in place. 8. The only barb wire you can lay 80 rods or more on ground and drag with team and not injure or displace the barbs. 9. The only barb wire that gives universal satisfaction and has greater sale than all others put together.

JONES, GIVENS & CO.,

Pacific Coast General Agents, Sacramento, Cal.

Manufactured by WASHBURN & MOEN MANUF'G CO.



LOOK!

ALBERT E. BURBANK, Importer and breeder of Fancy Fowls, Pigeons, Rabbits, Dogs, etc. Also, Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK, 43 and 44 California Market, S. F.

ASK YOUR GROCER OR OIL DEALER FOR "ELAINE" THE FAMILY SAFE GUARD OIL

TRADE MARK.

CALVERT'S CARBOLIC

SHEEP WASH,

$2 Per Gallon.

After dipping the Sheep, is useful for Preserving Wet Hides, Destroying the Vine Pest, and for Disinfecting Purposes, Etc.

T. W. JACKSON, S. F., Sole Agent for California and Nevada.

ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco

Farmers, write for your paper.

HEALD'S BUSINESS COLLEGE,

No. 24 Post Street, SAN FRANCISCO, CAL.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

LADIES' DEPARTMENT.—Ladies will be admitted for instruction in all the Departments of the College.

TELEGRAPHIC DEPARTMENT. — In this Department young men and young ladies are practically and thoroughly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars, E. P. HEALD, President Business College, San Francisco, Cal.

CAUTION.

To Farmers and all others who put Barbs upon Wire Fences, Making a Barbed Wire Fence, and to all Manufacturers and Dealers in Fence Barbs and Barbed Fence Wire.

You are hereby notified, that in putting barbs upon wire, making a barbed wire fence, or in using or dealing in barbs or barbed fence wire, not made under license from us, you are infringing upon our patents, and we shall hold you strictly accountable for damages for all infringements of Letters Patent, Nos. 66,182, 67,117, 74,379, 84,062, 153,965, 157,124, 157,508, 164,181, 173,667; re-issues, Nos. 7,136, 6,976, 6,902, 7,035, 7,036, 6,913, 6,914, and other patents. Copies of our claims can be obtained of our attorneys, Colburn and Thacher, Chicago, Ill.

WASHBURN & MOEN MANUF'G CO., Worcester, Mass.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

ANGORA ROBE and GLOVE COMPANY,

San Jose, California,

Capital Stock, $50,000.

C. P. BAILEY, President, J. LEWIS, Secretary, J. W. HINDS, Treasurer.

DIRECTORS:—C. P. Bailey, J. W. Hinds, Jackson Lewis, C. H. Lapham, Return Roberts.

Manufacture, from Angora Goat Skins,

FURS FOR ROBES,

Mats, Robes, Gloves, Etc.

SMITH & WESSON'S

New Model. 38 Calibre. Central Fire. With Automatic Cartridge Ejector



NOW READY.

For **convenience, power** and **accuracy,** it is *unequalled.* If your merchant does not keep them, order direct from the Agency, *79 Chambers St.* New York. **M. W. Robinson,** Gen'l Agent.

Rupture.

"Metal Trusses being rigid and unyielding, are often displaced from their position by the motions of the body, in consequence of which they ENLARGE rupture instead of healing it. Their pressure is often wrought upon parts of the body which are healthy, thereby causing lumbago and other diseases of a dangerous nature." Call on the MAGNETIC ELASTIC TRUSS CO., 609 Sacramento Street, S. F.

FRED WOLFF,

CARPENTER and BUILDER

Particular Attention paid to

Country Work.

Address, No. 433 FULTON STREET, SAN FRANCISCO.

DAVIS & SUTTON,

75 Warren St., New York,

Commission Merchants in California Produce.

REFERENCE.—Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A. Lusk & Co., San Francisco, Cal.

50 Visiting Cards, with your name finely printed, sent for 25c. We have **100** styles. **Agents Wanted. 9** samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

Lands and Homes for Sale.

IMPROVED FARMS FOR SALE

In CAPAY VALLEY, YOLO CO.,

WITHIN ONE MILE OF THE TOWN OF CAPAY, THE PROPOSED TERMINUS OF THE VACA VALLEY RAILROAD, 16 MILES WEST OF WOODLAND.

One Farm, containing 280 acres of choice valley and hill land, good house, barn, granary, etc., and well fenced. Price, $7,000.

One farm adjoining of 100 acres; good house, barn and outbuildings, young orchard—well watered; Cache creek, a never failing clear mountain stream, running through both farms. Price, $3,000.

Also, **Town Lots in Capay**, soon to be the center of trade and railroad depot for the western and northwestern portion of the county, and also for the quicksilver mines of Lake and Napa counties. Price, $50 to $150 per lot.

TERMS:

One-Half Cash. Balance Secured by Mortgage.

J. W. ALDRICH, Capay, Yolo Co.

FOR SALE,

In Lots to Suit,

5,000 Acres of the Lake Vineyard Land and Water Association.

These lands are in the great fruit belt of Los Angeles County,—only six miles from the city are peculiarly adapted to semi-tropical fruits, and adjoin the famous Lake Vineyard of Hon. B. D. Wilson. The Southern Pacific railroad runs through the land; convenient to schoolhouse and church; water in abundance, and the water-right is sold with the land. Title perfect. A Map of the tract may be seen at the office of Mayor Beaudry, on Spring street, opposite City Council rooms. References may be made to Hon. B. D. WILSON or J. DE BARTH SHORB, at Lake Vineyard, who will take pleasure in showing the lands. Also, to Mayor BEAUDRY or D. FREEMAN, Los Angeles city.

A RARE CHANCE.

FOR SALE—My Poultry Business, with my Farm of 115 acres; 22 acres of Vineyard and Orchard; House of 10 rooms; Barns; Granaries; 30 Chicken houses.

Receipts between $3,000 and $4,000 a Year

Fully proved to the purchaser. Farm Implements, Wagon, Horses, Cows, etc., with Poultry (value over $3,000) included. **Price, $12,000**, one-half cash. Or I will sell a Half Interest and continue the business in partnership—the purchaser to reside on the place. Address,



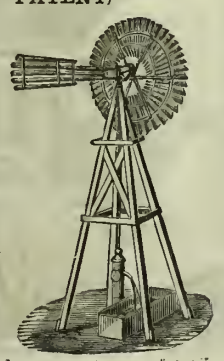
M. EYRE, Napa, Cal.

In view of above I offer a few fine Fowls, Bronze Turkeys, etc. (not included in breeding pens and stock sold with farm), at reduced prices.

The Famous "Enterprise"

(PERKINS' PATENT)

Self-Regulating, Farm Pumping, Railroad and Power



WINDMILLS,

Pumps & Fixtures,

Have been in use on the Pacific Coast in the towns and farming districts for over four years, and wherever they have been sold (and there are thousands of them out) they are doing their work as well as when put up. A careful perusal of our Circulars gives a fair representation of them and shows their simplicity.

We are prepared to fill orders for all sizes, from a PUMPING MILL to a 24-foot POWER MILL for running Machinery, as well as doing the pumping.

The "ENTERPRISE" FEED MILL

(PACKERS' PATENT),

For Grinding Barley, Etc.,



Equally as commendable, has now been tested to entire satisfaction of all, and meets the demand for an article of that kind that has not been supplied on the Pacific Coast heretofore.

CHEAP and RELIABLE.

All Goods Warranted.

Send for Illustrated Circulars and Information to

HORTON & KENNEDY,

Managers for California and Pacific Coast,

General Office and Supplies,

LIVERMORE, ALAMEDA COUNTY, CAL.

"PERIOD" WINDOW SCREENS,



For Exclusion of Flies, Mosquitos, Etc.,

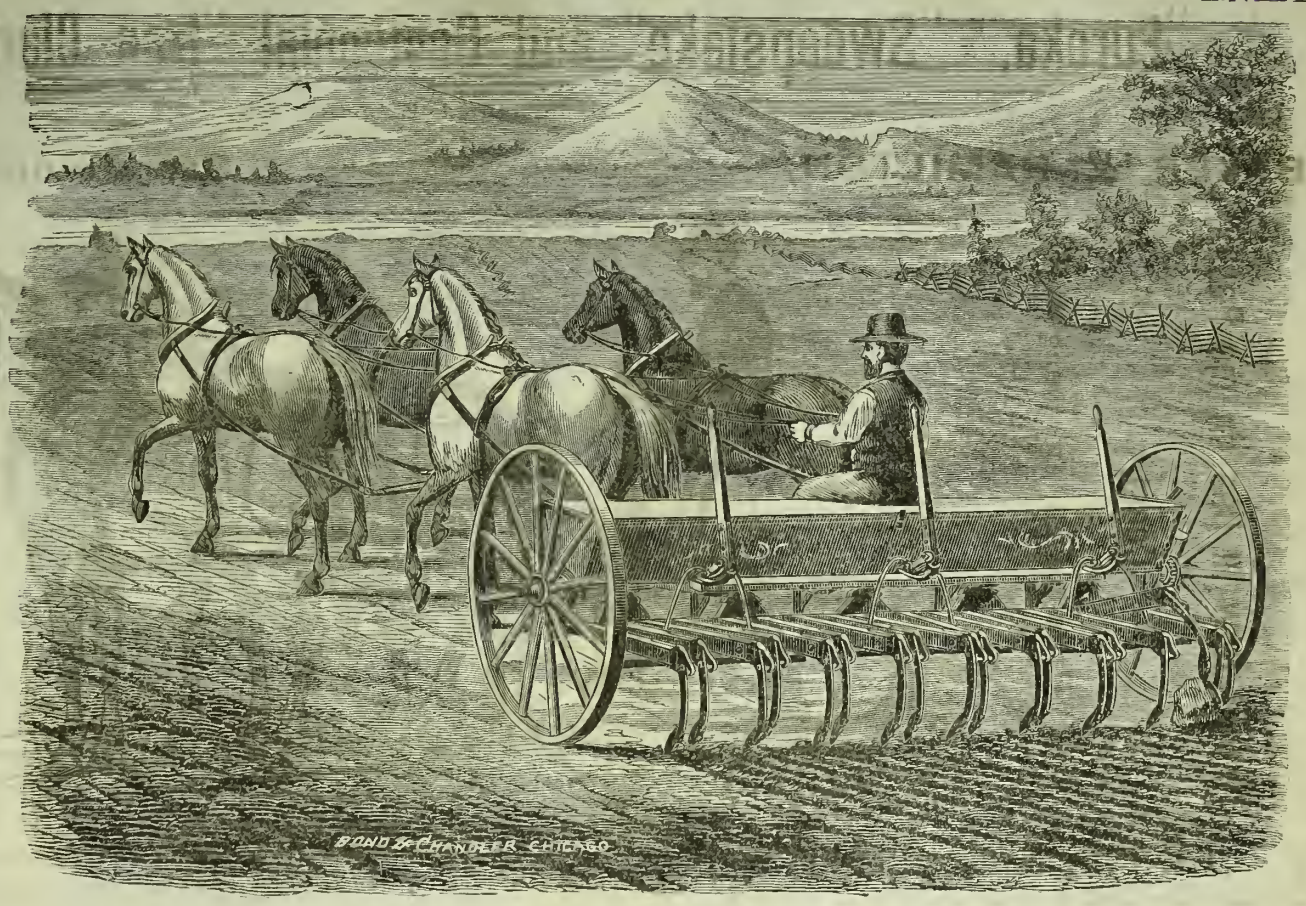
For New Buildings.

The stiles of the upper sash are continued to form a panel, in which is placed a wire netting, so that when the upper sash is lowered the screen follows the sash and fills the space. The lower screen operates in a similar manner, but is made half the thickness of sash, and is detachable. Both screens can be made thin and detachable if so desired. In most cases the top screen is sufficient. Both of the screens are protected from the weather, and are entirely out of sight when not in use. For particulars, apply to

J. J. NEWSOM, Architect,

321 California street, S. F.

The GORHAM SEEDER AND CULTIVATOR COMBINED



No Other Machine Presents such an Array of Useful Devices, and, taken together, they Constitute the Gorham Seeder a Machine Distinct and Separate from all others of its Class.

We Ask all Those in Want of a Seeder to Call upon us and Give our Machine a Thorough Examination, or Write Directly to Us.

We can produce single testimonials that would fill this page, claiming for it a reputation as broad as its use is extensive. Among the hundreds who have used them we refer to as many as space will admit, in different parts of the State, who are using from 1 to 16 machines each:

Dr. Glenn, of Jacinto; R. S. Cary, Sacramento; Charley Coyle, Woodland; G. W. Scott, Yolo Co.; Bullard & Co., Chico; John Simpson, Tehama; E. Hunter, Princeton; John Boggs, Colusa: Murdock & Jones, Colusa; Overhiser, of Grangers' Union, Stockton; A. L. Layre, Fresno Co.; I. Friedlander, San Francisco; John Mitchell, Modesto; Grangers' Union, San Jose.

THE SIX-FOOT MACHINE, with two horses, will seed 12 acres per day easily. THE EIGHT-FOOT MACHINE will seed 16 acres per day; THE TEN-FOOT MACHINE, with four horses, will seed twenty-five acres per day; THE TWELVE-FOOT MACHINE will seed 34 acres per day; THE FOURTEEN-FOOT MACHINE, with six horses, will seed 40 acres per day. ☞ Extras of all parts always found with us.

Our Assortment of Harrows is the Most Complete to be found in the State.

Iron Harrows; Hard Wood Harrows, with adjustable hinges; Teeth of the Best Toe-Cork Steel; seven and nine Chisel Tooth Cultivators, with Reversible Teeth.

COLLINS' CAST CAST STEEL PLOWS.

The people of the coast need no longer be humbugged by imitation Cast Cast Steel Plows. We will keep the Genuine Collins' Steel Plows, made expressly to suit the wants of this trade; also, a full line of Extras for the above goods, which we guarantee to fit.

Feed Cutters, Wine and Cider Mills, Barbed Wire for Fencing, Wagons, Spring Wagons, Halliday Windmills, Etc

KELLER & CO., 43, 45 and 47 J Street, Sacramento, Cal.

SANBORN & BYRNES,

STAIR BUILDERS,



Mechanics' Mills, Mission Street, Bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of Stair Material furnished to order. Wood and Ivory Turners. Billiard Balls and Ten Pins, Fancy Newels and Balusters.

Elastic Truss.

Reader, are you afflicted with the scourge of humanity called "Hernia?" Well then; as much as you value health and comfort, give our Elastic Truss a fair trial, and our word for it, you will never again wish to wear anything different. For simplicity of construction, durability, ease, convenience, efficacy and quickness of cure, it stands unrivaled. MAGNETIC ELASTIC TRUSS CO., 609 Sacramento Street., S. F.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

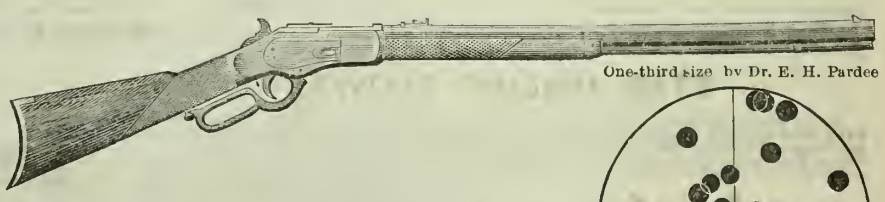
Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

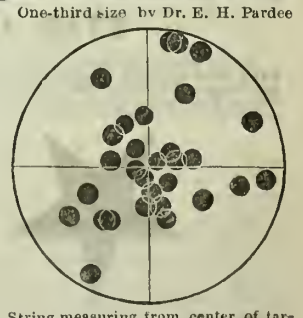
Stockton, Cal.

Winchester Repeating Rifle.

MODEL 1873.



One-third size by Dr. E. H. Pardee



String measuring from center of target to center of each shot, 32¾ inches. Average distance of each shot, 1 9-100 inches.

The Strength of all Its Parts,

The Simplicity of Its Construction,

The Rapidity of Its Fire,

The Power and Accuracy of Its Discharge,

The Impossibility of Accident in Loading,

Commends it to the attention of all who use a Rifle, either for Hunting, Defense, or Target Shooting.

The San Francisco Agency is now fully supplied with all the various kinds and styles of Arms manufactured by the Winchester Repeating Arms Company, to wit:

Round barrels, plain and set, 24 inch—blued. Octagon barrel, plain, 24 inch—blued. Octagon barrel, set, 24, 26, 28, 30 inch—blued. Octagon barrel, set extra heavy, 24, 26, 28, 30 inch—blued. Octagon barrel, set 24, 26, 28, 30—extra finished case hardened and check stocks. Octagon barrel, set extra heavy, 24, 26, 28, 30 inch—extra finished—C. H. & C. S. Octagon barrel, set, 24, 26, 28, 30 inch. Beautifully finished. C. H. and C. S. Known as "One of One Thousand." Octagon barrel, set, gold, silver and nickel plated and engraved. Carbines blued, also gold, silver and nickel plated. Military rifle muskets, model 1873. Rifles, muskets and carbines, model 1866. **Reloading Tools, Primers and Parts of Arms.**

A heavy stock of Cartridges Manufactured by the W. R. A. Co., for all kinds of Rifles and Pistols, constantly on hand and warranted the best in the market.

JOHN SKINKER, No. 108 Battery Street, San Francisco,

SOLE AGENT FOR THE PACIFIC COAST.

Prices Reduced. FARMERS, ATTENTION. **Prices Reduced.**

"Eureka," "Sweepstake" and Centennial "Iron Clad" Gang Plows,

Manufactured Expressly for

BAKER & HAMILTON, - - - - San Francisco and Sacramento.

10,000 Now in Use on the Pacific Coast.

Extra Parts are all Interchangeable.



The Cheapest and Best Gangs in the United States.

"EUREKA" GANG PLOW, WITH FIN CUTTERS.

No. 1.—"SWEEPSTAKE" Steel Gang, with two extra Points—Wood Beams	$ 85 00	No. 7.—Hill's "EUREKA" Steel Gang, with 5-16 inch extra Hardened Molds, Cast Steel Points, with two extra Points—Iron Beams	$100 00
No. 3.— Ditto, with 5-16 Steel Mold and Cast Steel Points, two extra Points—Wood Beams	90 00		
No. 5.—Centennial "IRON CLAD" Moline Bottoms, two extra Points—Iron Beams	85 00	No. 8.—Hill's "EUREKA" three Gang Plow, with three extra Points	120 00
No. 6.—Hill's "EUREKA" Star Moline Gang two extra Points—Iron Beams	100 00	No. 9.—Hill's "CHAMPION" Deep Tiller One Plow Sulky, no extra Points, cuts 14 to 16 inches, Made to Order.	

Fin Cutters, - - - - - - - - $2 50 per pair.

The above mentioned Plows are the Standard Gang Plows of the Pacific Coast, and are manufactured by the Sweepstake Plow Company, San Leandro, Cal. They are simple, durable, painted and finished off in first-class style, and none but the most skilled mechanics are employed in their manufacture. There are thousands of them now in use on this Coast, and giving entire satisfaction.

If you want a Gang Plow that you can depend on giving entire satisfaction, buy one of the above.

"Granger" Gang Plows.

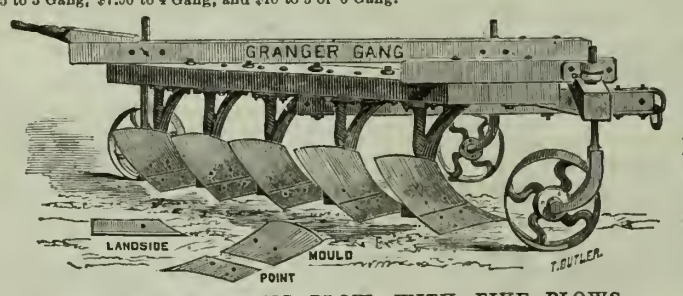
No. 11.	3 Gang, 8 inch..$56.	9 inch..$58.	10 in..$60.
No. 12.	4 " 8 " .67.	9 " .. 70.	10 in.. 75.
No. 13.	5 Gang, 8 inch..$75.	9 inch..$80.	10 in ..$85
No. 14.	6 " 8 " .. 80.	9 " .. 90.	19 in.. 90.

All with 2 Castor Wheels in Front, and extra Points. The Woods are clear Oregon Pine. For Oak or Ash Woods add $5 to 3 Gang, $7.50 to 4 Gang, and $10 to 5 or 6 Gang.

3 Gang, 10 in.....$50.

All parts are made Interchangeable. Indispensable to the Economical Farmer.

Every man his own Blacksmith.



Simplicity, Durability and Cheapness Combined.

Extra Molds, $3.

Extra Points, $1.00 to $1.50.

THE GRANGER GANG PLOW, WITH FIVE PLOWS.

Chisel Cultivators, With Wrought Standards, Thoroughly Braced.

The Sweepstake Plow Co. make of Chisel Cultivators is acknowledged to be the best ever invented. All the parts are made interchangeable, and are easily repaired. Each tooth is calculated to stand the strain of six horses.

4	Horse	7-Tooth	Chisel	Cultivators	$ 75
6	"	9	"	"	85
8	"	11	"	"	100
10	"	13	"	"	110

These Cultivators are made of the best Hardwood, expressly for

BAKER & HAMILTON,

SAN FRANCISCO or SACRAMENTO.

Oliver's Patent Chilled Plows.

No. 20 cuts 11 inches, $19.

No. 40 cuts 12 inches, $20.

The metal used in the molds and landsides of Oliver's Chilled Plows, is the only material in use adapted to all kinds of soil It is the hardest, most dense and finely grained metal used in the manufacture of plows, and will receive the highest degree of polish. It will not corrode. The heaviest coating of rust disappears almost as soon as the plow enters the soil, leaving it as smooth and bright as when last used. The process by which it is made insures a uniform degree of temper, and we warrant every mold and landside sold to wear twice as long as any steel or metal plow in market.



"GEM" AND CAHOON SEED SOWERS

Price List of Seed Sowers.

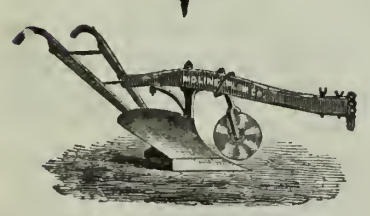
No. 1	"GEM," to run with chain and bevel gear		$35 00
No. 2	" " " belt		40 00
No. 3	" " all gears		50 00
	No. 3 only made to order.		
CAHOON SOWER, to run with chain			25 00
"	" " all gears		40 00
"	Hand Sower		10 00

The GEM throws the seed the same as if thrown by hand. It sows on *either side* of the wagon at pleasure. It saves the price of itself over any other Sower in one season. In commencing to sow, one-half of the grain is not wasted, as you can close one slide and sow *only* on *one side*.

STAR MOLINE PLOWS.

We are the sole agents on this coast for the celebrated Star Moline Plows. They are made Extra Hard, elegantly finished, and the only Plow which scours in every soil found in California and Oregon. Purchasers should see that each Plow is branded on the beam with a Bright Red Star, and our name over it. There are numerous cheap sheet steel Moline Plows offered, which are nearly without merit, excepting the name "Moline."

Many of the Plows are iron which are sold for extra hardened steel, and purchasers should see that they are not imposed on by any imitation The Star Moline Plows have been tested for the past four years, and found to wear longer than any other, draw much easier, and scour in any soil. The reputation of the Extra Hardened Star Moline Plow, as sold by us, has been so great that the demand for them has induced numerous manufacturers to flood the State with sheet steel imitations. Caution is therefore necessary in buying Plows—see that all have BAKER & HAMILTON on over the Star.



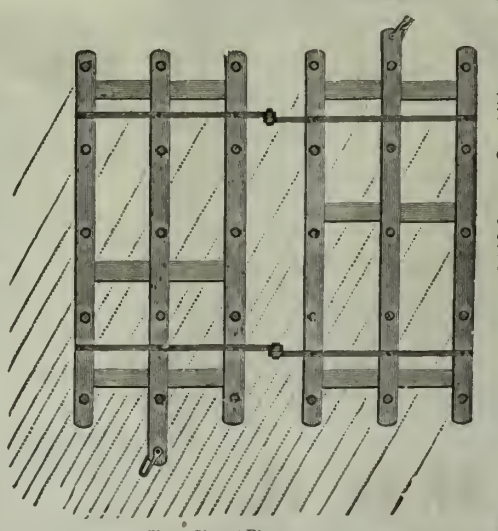
STAR MOLINE PLOW.

SIZES AND PRICES.

No. 8½	Slip Share, cuts	9 in.	$8 50
" 8	"	10 in.	9 00
" 7½	"	11 in.	14 50
" 7	"	12 in.	15 00
" 6	"	14 in.	16 00
" C 7	Scotch Clipper, Slip Share, cuts	14 in.	17 50
S No. 1	Cast Steel, 12 in.		19 00
S No. 1	Cast Iron Beams		22 00
Tre S	Plows have Steel Lands.		
High Landsides			$1 00 extra.
Fin Cutter			1 50 "
8-in. Gauge Wheel			1 75 "
Rolling Coulter, 12 in.			$6 00
" "		14 in.	6 50

Castor Coulter			$8 00
16 in.	Extra Breakers		40 00
18 in.	" "		45 00
20 in.	" "		50 00
22 in	" "		55 00
24 in.	" "		60 00
Two-Wheeled Truck for Breakers			18 00
12 in.	Grub Breakers		$35 00
14 in.	" "		37 50
16 in.	" "		40 00

The Extra Breakers have extra share Rolling Coulter and Gauge Wheel.



Single Shovel Plow, Wood Beams	$7 50
Double Shovel Plow, Wood Beams	8 00
Double Shovel Plow, Iron Beams	9 00
Single Shovel Plow, Iron Beams	8 00
Three Shovel Plow, Iron Beams	$12 00
Subsoil Plow, with Gauge Wheel	22 50

We keep full stock Moline Points, Beams, Handles, etc.

HARROWS.

30	Tooth	Slat	Harrows,	½x¾	Teeth	$16 00
36	"	"	"	"	"	18 00
42	"	"	"	"	"	20 00
48	"	"	"	"	"	22 50
56	"	"	"	"	"	25 00
64	"	"	"	"	"	27 00
72	"	"	"	"	"	30 00
90	"	"	"	"	"	35 00
100	"	"	"	"	"	40 00

Manufactory, Sweepstake Plow Co., San Leandro.

All these Harrows are made with Plate Hinges running across the top, and are Mortised Slats, and are made of the very best seasoned timber.

We have other *sizes* and *styles* at greatly reduced prices.

Address BAKER & HAMILTON, San Francisco and Sacramento,

IMPORTERS OF ALL KINDS OF

FARMING IMPLEMENTS HARDWARE, ETC.

LIBERAL DISCOUNT FOR CASH ON ALL ORDERS.

PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, NOVEMBER 4, 1876. [Number 19.

Grape Syrup.

Our St. Helena correspondent in another column makes a note of the grape syrup interest. We have received the sample bottle of Bruce & Gilliam's manufacture and have given the article a very thorough and practical series of tests. It is a rich, heavy syrup and certainly bears to the taste a much nearer approach to the saccharine standard of cane sugar than the quality of grape sugar would indicate. The syrup has a characteristic fruity flavor which is as marked as the flavor of pure maple sugar, but very different. The taste for this flavor we imagined at first would have to be acquired because it is so peculiar, but from the table tests which we have given it we have a showing of 100 per cent. in favor of it; in fact, all who have flooded the waffle and pancake with it at our board unite in pronouncing the flavor delicious.

The syrup, according to the sample sent us, is a heavy fluid of very dark color, and resembles the fine grades of molasses in everything but flavor. We imagine that to succeed in the general market the syrup must be refined so as to bear a light amber color. If this is not done the color will certainly stand in the way of its general introduction, because it is one consideration of modern table furnishing that an article must be handsome as well as delicious to the taste. According to the estimate of the cost of the syrup which our correspondent gives, it seems to us that the product will bear the additional expense of refining and still be cheap enough to win its way into consumption. As we look upon it, it will not come into competition with the lower grades of syrups, but will strike at once for rivalry with the best golden drips from the cane or the amber product of the maple. It will conquer these upon the ground of flavor. In this respect it will throw out the cane products at once, but the contest will be closer between it and the fine flavor of the maple syrup. In the matter of cost as between the grape and the maple, the advantage will be largely on the side of the grape.

We see quite a chance for this manufacture in the markets. Adopting Colonel Sellers' method of estimating the field for eye water by the number of sore eyes in Asia, we look to the East and make a hasty census of the number of buckwheat pan-cakes with which our Eastern friends are wont to maintain the internal fires and withstand the winter's cold. If we can put a teaspoonful of grape syrup upon every pan-cake which turns on Eastern griddles, there would not be Mission grapes enough in the State to syrup the East for a week.

If this business is pushed energetically, (and those who have the enterprise in hand seem well possessed of the quality of energy,) we can see no reason why it cannot be made quite an avenue of profit to our vine growers. It seems as though the sweet little Mission grape has struck at last the lead which will raise it above the disgrace which more pretentious imported rivals have cast upon it. If the syrup is properly made and put upon the market in handsome form, bearing upon the package an illuminated label which shall bespeak its origin to those to whom it comes as a novelty, we foresee for it a speedy and profitable introduction as a table delicacy.

Dried Bananas for California.—It appears from the *Hawaiian Gazette* that the Sandwich Islanders have an eye to our market for dried bananas. We read that a resident intends shortly to erect Alden drying works in Honolulu, for the purpose of drying fruit—chiefly bananas. He has received assurance from California that he can obtain $400 per ton for all the bananas he can furnish, and he estimates that they can be dried and shipped at an expense not exceedingly $75 per ton.

Montana.—Mr. A. C. Knox, a valued correspondent, who has been connected with this office over 10 years, contemplates visiting briefly this Territory on business for the Press. Any assistance rendered him by the friends of this paper and the Territory will be worthily bestowed.

California Fruit at the Centennial.

There is a prospect that Californians will always have occasion to regret that the representation of the State was not provided for by State appropriation. The efforts which have been made since have been at such disadvantages of lack of funds, etc., that the results were not as satisfactory generally as could be desired. For instance, the fruit display which was made by private enterprise and at the risk of private funds. Mr. Thomas Meehan, who was one of the Centennial fruit judges and is also the editor of the *Gardeners' Monthly*, writes in that journal as follows: "Ohio had a very fine collection of fruit, but we understood that the State would pay no one to properly exhibit them, and so no one knew names of fruit or of parties who sent them, which was unfortunate. In like manner unfortunate was California. The fruit appeared to be fine, bnt the chance of turning an honest penny by selling to a Centennial visitor for a dollar the same article he could buy on Philadelphia streets for a quarter was too strong on those who had charge. The very plate under the Judges' noses would be sold off before they could make an entry in their note-books, and after many attempts to do justice as between the growers and the Centennial visitors, the judges gave up California in disgust."

This was indeed unfortunate and greatly to be regretted, even if the facts shonld not be quite as strong as Mr. Meehan puts them. But there is this to be considered: that the company of men who took the risk of shipping the fruit had a freight bill of about $1,000 to realize from the fruit in some way, and this must be the excuse if the commercial spirit cropped out too boldly. There has been a statement published showing that the shippers of this fruit gained no money from the enterprise. The regret is that there was not State provision for the display, and that the question of a need for selling shonld ever have arisen.



THE SUMMIT OF THE ALLEGHENIES.

The ship *Rydal Hall*, recently wrecked at Pigeon point, went to pieces in the gale last week. Nothing in the way of salvage had been done, owing to some misunderstanding between the purchasers and the wreckers employed. A large quantity of wood-work drifted past the Cliff house on Thursday afternoon, and went ashore on the north side of the Gate.

Pennsylvania Mountain Scenery.

It is but within the last few years that Pennsylvania has acquired a name for her beautiful scenery. Her people have been workers rather than dreamers; she has produced many an excellent mechanic and worthy iron-master, but few indeed have been her poets; no Irving has yet sprung from her soil to tell the glories of her hills, and no Bryant to sing the beauties of her waters; her people have been content to let the outside world find ont for itself what she had to show more beautiful than black diamonds or red iron ore—and since to travel has become so common, the ontside world *has* found out, and many are the Centennial visitors this year who will carry home with them, firmly fixed within the memory, delightful landscapes from the land of William Penn, whether of the rounded hills and calmly-flowing waters of the beautiful Ohio, the wooded ravines and hights of the Alleghenies, or the almost English scenery of the garden counties abont Philadelphia.

The characteristic of Pennsylvania scenery is its softness of ontline. The steepest of the hills slope off to gently ronnding summits, and their rough sides are hid beneath a luxuriant growth of forest trees and nnderbrnsh. The engraving upon this page depicts one of the wildest scenes along the line of the Pennsylvania railroad. It is at the highest elevation reached by the railroad, some 2,100 feet above sea level, just east of the three-quarter-mile-long Allegheny Summit tunnel, and where a little station has been erected, called "Allegrippus," in honor of *Old Allegrippus*, one of the earliest of engines to cross the mountains—a giant a long the iron giants of the road, the fame of whose strength and speed is still proudly cherished. The scene is certainly a beautiful one. At the bottom of the ravine sparkles and gleams a little tributary of the Juniata, while on either side the hills stretch up a thousand feet, into the clonds, their rugged sides clothed with a dense and varied growth of oak, chestnut, beech, birch and a thousand other varieties of tree and bush and shrnb; while over all there smiles down a bright, warm sky, made doubly beautiful by such lovely clouds as Californians seldom see. High up upon the left side of the ravine the railroad has, by what was considered bold engineering until we of the Pacific slope began to build railroads, fonnd a course for its iron steeds, and from the swiftly-moving cars the view down and across the narrow valley is inspiring, and at this season of the year, or a little earlier, when the thousand and one trees and shrubs have put on the many-tinted hues of autumn, it can be described by no less word than magnificent.

A Grasshopper Convention.—There has been held during the week in Omaha a convention composed of the governors of several of the prairie States and leading western entomologists to devise ways to conquer the unwelcome grasshopper. Resolntions were adopted looking toward the destruction of the grasshoppers, recommending in the States and Territories interested, the making of laws to encourage their eradication and other steps necessary to rid the country of the scourge. The president of the convention was requested to draw up and present to the President of the United States a letter setting forth the urgent necessity of action by the General Government in behalf of the sections ravaged. The Governors of Minnesota, Illinois, Iowa, Kansas, Nebraska, Missouri, Colorado, Wyoming, Dakota and Idaho, were requested to transmit to their respective Congressional delegations a record of the proceedings of the Convention, and to request them to urge on Congress speedy action in this matter. It is ascertained that the grasshoppers have not done the amount of damage imagined, and that they can be encountered and exterminated with much less labor and difficulty than heretofore supposed, by united concentrated efforts at the proper time. It is announced that no fear need be entertained as to serious resnlts the coming spring.

Hon. Charles DeLong, ex-minister to Japan and well known on this coast, died at Virginia City last week.

CORRESPONDENCE.

Description of Santa Cruz County.—No. 3.

EDITORS PRESS:—The Hattler ranch had been claimed by Major Hensley, of San Jose, and used by him as pasture for a large band of cattle. But the grizzlies troubling them so much, he concluded to abandon the place, which he had done a short time before our visit to it. Consequently, when we had successfully scaled its steep sides and gazed upon its grassy and gently sloping surface, we could see no living being. It was a perfect solitude. Walking to the upper end we found the lagunas and a little cabin beside it. Nothing else showed that the place had ever been occupied. The only way of approaching the place considered at all practicable, was along a rocky ridge so narrow and so rough that it was necessary to drive the stock in single file, and in many places to jump them from rock to rock; in doing which Major Hensley broke the legs of some of his cattle, and thus lost them. Soon after Hensley's abandonment Mr. Hattler and Dr. Langhorne, of San Jose, took possession of the place, planted the present large vineyard, made a good road to the summit of the mountains towards Santa Clara, and a passable one down the Zayante towards Felton, and it became one of the noted vineyards of Santa Clara county.

About one year ago Mr. H. and Dr. L. sold the place to Mr. Swinford, of Santa Clara, who now occupies it. Not having yet obtained the statistics I cannot give a precise statement of its improvements or productions. But this much I can say from what I know of the place, it is one of those choice places where the vine excels in all its products and most of other kinds of fruit grow in great perfection. There are such favorable conditions of climate and soil attaching to this place (and to many others in these mountains,) that it is one of the possibilities that it may yet become the "Chateau de Lafitte" of California. This place, as might be inferred, lies west of the west main branch of the Zayante creek, heading near the summit of the mountain, where the Bear creek route crosses. There are a few small ranches above and on either side of this creek, whose brief description will more properly belong to the Bear creek route. About opposite this Hattler ranch, east and south, is what was formerly known as the

Sam Templeton Ranch.

It is situated on a ridge and slope running between and connecting the east and west branches of the Zayante. On this ridge is where the struggle to get through the brush occurred, narrated in a former article, and where, too, we planted a Spanish spur on that memorable occasion. This latter ranch cannot be seen from the turnpike, as it faces down the creek towards the junction of the east and west branches, and the side next the road being the highest. It is approached by a road from the summit and running down the ridge between the two branches of the creek.

On the eastern branch—heading just west of Charley's house and running in the deep canyon to the right all the way as we have come down—is the

Weymouth Ranch.

It is a little farm, 60 or 70 rods wide perhaps, on the side toward the creek, and runs back westwardly to the foot of the ridge which separates the two creeks. It is quite opposite the Templeton ranch, and not far from it; it is approached down the same ridge as Templeton's. There is nothing about this little ranch to particularly attract the attention of the traveler, excepting its cosy position among the hills and the relief it gives to the eye by breaking the monotony of the vast forest around it and extending mile after mile below toward the distant San Lorenzo.

Forests.

This turnpike of Charley's, after leaving the cut we have spoken of as beginning at the toll gate and running on the west side of the ridge for about two miles, passes down the same ridge about three miles to where the road crosses Bear creek. This ridge becomes less elevated as it approaches the crossing of the creek, and the road gradually bears to the left and leaves it altogether at the crossing. After the road leaves it immediately rises again and continues a high dividing ridge between the waters of the Bear and Zayante creeks to where those creeks unite four miles below, and perhaps a mile above the junction of the Zayante and the San Lorenzo. All the country between this ridge and the one west of the Zayante, beginning at the junction of its two branches and extending down three miles or more, is a broad basin of redwood timber—cut and divided by lateral ridges projected from the main ridge on either side and running nearly to the creek. But from the distance it is seen it looks quite smooth and unbroken to its termination at the open valley below. Underneath all this vast forest of red and fir wood is a smaller growth of bark or chestnut oak, madrona and laurel, forming a dense, dark shade until the woodman's axe, ringing along its tall aisles and echoing back from hill to vale its regular, unrelenting strokes, opens wide rifts in the leafy covering with the huge monarch of the forest, which, having acknowledged with a loud groan the victory of the conqueror, rushes headlong down and smites the solid earth with a roar like the explosion of artillery or the reverberation of distant thunder, as the sound rolls along the tops of the mountains. On this creek, between its forks and the open Zayante valley below, were formerly two shingle mills about two miles apart; the upper one was owned and run by "Mountain Charley," and the lower by L. A. Aldrich, of Oakland, and the inventor of the most popular gopher trap in the State until the Wood cylindrical trap was introduced. (Mr. Wood, the inventor of this trap, is also a citizen of this county). Both of these mills have been removed and now there is not one mill on the Zayante creek.

Ranches.

To the right of the Aldrich mill, on a slope west and facing the creek, but a considerable distance therefrom, is another ranch, known as the Bucknam vineyard, producing fine grapes and good wine. In the same neighborhood are one or two other small ranches in the timber lands. But finally, taking the open Zayante valley in our description, which we, from our lofty point of view, have espied lying entirely below the timber region in this direction, and we finish all we can see, unless we pass into the valley of the San Lorenzo with its ranches, towns, mills and flumes, all of which belong to another route.

The open land we see is the upper part of the old Graham or Zayante ranch or grant, extending in breadth from a little distance east of the creek to the sand dunes, which form a part of the western boundary. It is perhaps half a mile wide and extends in length down the Zayante about three miles to its junction with the San Lorenzo. The soil of this valley is a sandy loam, springs of water abound, and it is occupied by Mr. Newman as a dairy ranch. A little valley at the extreme northwest corner of this is known as "Quail Hollow." It is a beautiful, level little nook of perhaps a hundred acres, all surrounded with hills, excepting to the south, where it opens to the valley below. This place is owned and occupied by Mr. Joseph Kenville and family. The only tributary above having a different name from the main creek is the Lompecos, which empties from the northwest just above the Zayante ranch. There is but one small farm on the east side of the main creek and outside the Graham grant below, till we strike the valley of the San Lorenzo, and this is known as the Paschal ranch. C. N. W.

Watsonville, Oct. 23d.

Wayside Notes—Part 1.

[Written for the PRESS by FRANCES H. MCDOUGALL.]

After several months' sojourn in Inyo county, being about to return to home and friends, I was looking forward with considerable uneasiness to a repetition of a hard journey by stage, riding night and day, at least 200 miles, before reaching the cars. But my anxiety was agreeably cut short by an invitation to accompany a friend and neighbor in a private carriage over the mountains, which, besides other agreeable points, would shorten my journey not less than 150 miles. I had looked at this trip, from the sparkling accounts given of it, as a thing far off and unattainable, and, indeed, on the near approach it seemed so much like a fairy favor that I almost expected that the promised boon, rainbow like, would glide away out of sight and leave me baffled and alone. But, no, it showed no such abnormal behavior, but passively awaited my occupation. It became tangible, and on the 27th of September last my friend and I entered our carriage, and, drawn by four of the finest horses in the county, took a northern course along the high table-land that bears the name of

Owens Valley.

The fertile tract of Inyo seems cut square off from the barrens of Mono; for, after crossing Owens river, we plunge into oceans of sage brush, seemingly without bounds. If the heart of these high valleys should be found to enclose artesian water, all these immense wastes might be reclaimed, and the finest dairy lands in the world take their places. The experiment, I am told, has already been tried. The shrubby herbage being uprooted and burnt and the land treated to a plentiful supply of water, the sweet natural grass soon follows and becomes established.

But what a way was that between the Inyo mountains on the right and the Sierras on the left! What varied, beautiful, wonderful light and shadows were in constant action! Sometimes tall and stately forms, wrapped in dark robes, marched along the far highways; while sprites, ethereally fine, draped in folds of fleeciest vapor, soft and white as cygnet down, flitted here and there, mingling with and sometimes interrupting the stately march of cloud-capped giants, as they strode away and vanished 'mid the volumes of vapor that hung o'er the higher cliffs. It seemed as if the spirits of the air were masquerading in full troupe and fine array. And when the sunset came and touched the purple shadows with gold and saffron, binding the brows of the Sierra with shining crowns and warming the cloistered snow with blooms of beauty, the woven colors shot from chain to chain, and the whole earth was spanned with the beauty and the peace of evening; and when the lovely scene faded from the outer sight, I folded away the sweet memories, to blossom forever in my heart.

But this fine evening came to a rather

Unromantic Close,

When I was ushered into a wayside inn, kept by two bachelor brothers, and for the first time in my life I found myself in a house full of men, where the presence and the offices of the gentler sex were alike unknown. But I had nothing to complain of. The landlord and attendants were both polite and kind, and I could not have been treated with more respect if I had been a lately descended angel. But it was easy to see through the whole establishment, how all the finer amenities of life were missing, and I came to believe, more positively than ever, that woman really is a good institution.

Away again through the bright morning air, the rain of the night before having laid the dust. The ground was still covered with what, for want of a better name, I call the honeycomb rocks. These rocks are a great curiosity. In color they are of a dead purple or dark ashes of roses. They are full of holes, from the capacity of a drop to that of several hogsheads, varying in size from huge boulders and unmeasured mountain masses to disintegrations fine as sand, yet all having apparently the same composition and the same structure. The most probable theory is that this cell work is done to the presence and power of water, and that an immense lake, perhaps 20, perhaps 50 miles in diameter, once overspread this part of the country. But there is, I think, evidence of volcanic action also, which probably opened the gates and liberated the imprisoned sea; for the high walls of this rock appear to have swept along in a fluid state—congealing as they flowed—and the broad waves of the great Isaiatic tide may be seen to this day.

We enter a perpendicular cut in the rock, of perhaps 20 feet, through which the road passes, and come to one of the most curious of American antiquities, the

Pictured Rocks.

In the very cursory attention given to these mysterious relics of unknown ages, I came to the conclusion that they were arbitrary signs of ideas, and never intended as pictorial representations, and this for several reasons: First, they do not, with a single exception, represent any known forms. Second, the same forms frequently recur; and third, they are crowded together quite as closely as the words in books, which would not have been done if artistic effect were sought. The figures are deeply cut, and the perpendicular face of one rock, perhaps 20 feet square, is completely and closely covered with them, many other rocks in the neighborhood having more or less of the same characters. Of the origin of these inscriptions nothing is known. The Indians have no glimmering of traditions that throw any light on these time-benighted pages. Compared with the hieroglyphs of Mexico they are less symbolical and more arbitrary, while they are singularly unlike the Runic writings of the Northmen, found on the Dighton rocks and elsewhere. They are evidently records of events; though in what period or by what people made there is no sign left to show. It may be that they antedate all other records of the kind, pointing back to nations whose arts and whose history have long since been blotted from being.

After this point 19 miles without water; and we were fain to console ourselves, for want of other interest, with the beauties of the sage brush; for it has beauties, dry and sterile as it is—beauties of coloring, which, though of the negative order, are none the less attractive, with their delicate and varied blendings of nut-brown, olive-green, silver-white and steel-gray. But this constant observation of multitudes of small objects, seemingly so alike yet essentially so different, is very trying to the eye, and at length I resolve not to see them; but as we pass rapidly by, great waves of the same undefined colors flow backward from the worried sight and a haze hangs over the whole landscape.

But at length we come in sight of the village of

Hot Springs,

Where we gladly find shelter for the night, and in the morning walk out to see the nearly boiling waters gushing from the hills; and washers, with their tubs, making the springs useful as they flow. It gives one rather a qualmish feeling to think of the internal fires coming into such familiar neighborhood, and we trembled lest "dead volcanoes should leap to sudden life."

Rock Pictures.

Here we begin actually to traverse the mountains, that spring from beyond with an unceasing flow that continually girdles the horizon with seemingly impassable cliffs and ranges; but we always find an open sesame, and, in good time, are let out of these formidable fastnesses. This immense plateau seems to be formed by the convergence of the two great chains which had before kept a nearly parallel course. I noticed here that there were smaller figures, like pieces of statuary, set in suitable niches, or crowning the cliffs all along the ridges; and for a while I was wholly absorbed in the wonderful variety and remarkable characters they presented. This was a colossal bust of some old sage, clearly cut and classical, yonder a grotesque image of some deific concretion of mingled man and beast, to which a devout heathen might bow down and worship. Then fair temples, clothed in new and wonderful orders of architecture, villas, mansions and cottages came and disappeared as we wound slowly around the granite palaces where giants and dryads kept house in the presdamite ages; and ever and anon stole out from the slenderest crypts pillared grottoes and spacious caves. It was enchantment, all!

Nothing but sage-brush barrens in all these mountain-high valleys, except now and then in springy places there are smooth and extensive meadows where fortunes might be made by setting cranberries; yet now they are nearly valueless, so little do the people who traverse these scenes see what *may* be done.

But at length, as day declines, we come in sight of

Mono Lake,

But miles of rocky road and terribly steep hills lie between us and its shores, where we arrived just as evening had dropped her purple veil over the mountains, and given the lake her good-night kiss. We linger charmed. The mountains seem to creep close to the lake and enfold it with their deepening shadows; and their unvisited aisles, their tall cliffs and their cloistered canyons were peopled with forms fashioned of light and darkness, grand, terrible and grotesque, with here and there a dash of the simply picturesque and beautiful. Here hung heavy masses of cloud, like dark drapery, bordered, looped and festooned with opal or topaz; and yonder, flitting in feathery folds, ethereal gossamers, with lilac-tinted wings, hover on the hights or crown the cliffs with forms and motions of majesty and grace. Every thing more or less has a tint of purple; and away to the northwest, where a gap in the wall permitted sight, a heavy bank, as it were a fountain of this rich color, hung over the sky, and the whole lake was brightened with and made purple by its presence. Then long trains of ducks came trooping round the shore, and as they plunged in the lake and rose again the amethystine waters fell from their heads in chains and loops of flashing gems. The whole of that wonderful picture was borne away, and still remains permanently painted on the tablets of the soul.

Los Angeles County.

EDITORS PRESS:—Being somewhat in failing health, I thought I would see what a short sea voyage would do for me, and consequently took passage in the good ship *Senator* and landed in this city within 48 hours after leaving your Godly city of San Francisco, much improved in my feelings.

We had a very pleasant passage. Nothing of particular interest occurred on the journey until we neared Santa Barbara, a pretty little town nestled in a charming valley. A few miles before reaching there we passed through what appeared to be a sea of petroleum, the surface of the water resembling the tips of peacock's feathers; the effect was singularly beautiful. We arrived at Santa Monica at about eight o'clock in the morning.

Santa Monica

Is a beautiful village, built on a bluff of from 20 to 50 feet above the level of the sea; it is as sharply and perpendicularly cut by the action of the sea as though cut by a spade. The beach is a fine sand, on which there are some commodious bathing houses; a little way off were several seals. The people are very enthusiastic as to the future of Santa Monica, it being claimed that the climate is more salubrious and equable than any other on the continent; that "it is destined to be the Long Branch of the Pacific," etc.; and certainly a very large number of people in Los Angeles seem desirous of selling their estates to move to Santa Monica. While the thermometer frequently reaches 85 deg. in Los Angeles, it seldom exceeds 75 deg. at Santa Monica.

A ride of 16 miles along a very level road, occupying about an hour, carried us to

Los Angeles.

The road was dotted with cottages, and as it neared Los Angeles the effect of irrigation showed astonishing fertility. "Chinese cheap labor" displayed marvelous results, whilst frequently a few yards further on was a cottage occupied by Mexican or native American families showing unmistakable evidences of demoralization, dirt and laziness. The Santa Monica railroad depot at Los Angeles is very ornamental in its appearance, and would be an ornament to any place. The officers of the road wore neat and elegant uniforms, and were extremely courteous gentlemen. A street car carried us into the city, about a third of a mile distant.

Los Angeles is in a transition state; some very fine buildings have been recently erected, notably the "Temple block." A very fine high school has been built in a very elevated part of the city, and is a great ornament and honor to the city. A magnificent Catholic cathedral has also been built in the western portion of the city. It is gorgeously decorated with stained windows, paintings and silver candlesticks, etc. At the eastern extremity is an old adobe cathedral, built by the padres in their early settlement. The San Gabriel and San Bernardino mountains stand out very prominently in the background. Numbers of adobe cottages on the main streets and on the more elevated and obscure portions of the town give us

an unmistakable evidence of the nineteenth century overriding the eighteenth.

By the kindness of Mr. Ryan, County Assessor, I am enabled to present some of the principal

Statistics

Of Los Angeles county for the year 1875. As these will not be officially published until the publication of the Surveyor General's report next year, they will be found new to most readers:

Population of Los Angeles county, 30,000; area of land cultivated, 65,000 acres, of which 14,100 were devoted to raising barley, which produced about 415,950 bushels; corn, 14,100 acres, yielding 639,000 bushels. The wheat crop of 1875 was about 20,000 bushels; this year it is expected to be increased by at least 10,000, mainly at San Fernando.

The vintages occupy 5,000 acres, of which I purpose hereafter to give you a more detailed account. The total quantity of wine produced last year was 1,328,900 gallons; of brandy, 51,000 gallons were distilled in the same time.

In 1875 there were 6,900 lemon trees in bearing condition, and 36,700 orange trees; the number is expected to be greatly increased this year, probably doubled. Other resources and products of the county are as follows: Olive trees there were 2,170; almond trees, 1,100, walnut trees, 6,500; fig trees, 3,600; quince trees, 1,425; plum, 300; castor beans, 199,000 bushels; peas, 8,200 tons; sweet peas, 1 070 tons; hops, 27,200 pounds; tobacco, 174,000 pounds (to be greatly increased this year); wool, 2,034,828 pounds; sheep, 508,707; honey, 571,230 pounds; horses, 10,000; mules, 1,000; horned cattle, 13,000; Cashmere goats, 100; hogs, 9,790; bee hives, 10 386. Everything is expected to be largely increased in numbers in future years. The

City of Los Angeles

Occupies an area of land six miles square, three miles each way from the courthouse or center of the city. At the eastern extremity of the city is a remarkably thrifty village called "East Los Angeles," having a handsome, commodious hotel, conducted on temperance principles, and a great number of pretty cottages, with beautiful gardens attached. The streets are wide and ornamented with young pepper trees, which are of extremely rapid growth and produce an abundance of bright green leaves, and a pretty pink berry. I saw one pepper tree of nine years' growth on Mr. Heller's ranch, which looked as large as an oak tree of at least 50 years old, if not more.

At the western extremity of the town the growth of the city has been retarded by litigation, which is now, I believe, settled. The land is a little lower in elevation, but remarkably fertile.

Mr. E. Workman

Kindly invited me to visit his place there, and I was astonished at the wonderful prolificness I saw. From comparatively young trees I picked pears weighing exactly one pound and three-quarters each, the average appearing to be about a pound and a half in weight, with orange and lemon trees whose limbs were obliged to be propped up to sustain their immense crops. Mr. W. informed me that some trees would yield from 1,000 to 2,000 oranges a year, which would bring from $10 to $70 per 1,000. The oranges were now quite green and would not ripen much before February, but the anxiety of San Francisco purchasers would compel their being plucked and sent to market in December.

The walnut crop is very fine, the nuts being very full and juicy. Almonds have not done well lately, and many persons contemplate uprooting their trees. Apples are plentiful and good, while grapes are unequaled in quantity and quality. I saw many exquisite varieties of luscious grapes which measured about as large as the top point of my thumb. I saw some vines which averaged about 30 pounds of grapes on them. I thought I had seen fine grapes before, but never in California; the nearest approach to them was the celebrated Black Hamburg vine of Hampton Court, England, celebrated for yielding on an average a ton of grapes a year; but this is cultivated with great care, a dead cow being buried among its gigantic roots every year, while these vines are cut back every year, and receive no attention other than irrigation. Figs are abundant and luscious; and as for flowers, I cannot begin to describe the profusion of varieties and perfection of growth. Some tuberoses were remarkably fine and fragrant.

A number of wealthy gentlemen reside in the western portion of the town, among them

Ex-Governor J. G. Downey,

Who would pass as a man of mark in any community. Indeed, the business of the city seems largely to center in him; combined with great energy and shrewdness he is a model of gentlemanly courtesy. I happened to stumble upon him accidentally, but in a moment I realized I was in the presence of no ordinary man.

The political caldron is at boiling point just now in Los Angeles, and both parties are intensely active in their operations; business of all kinds, except real estate, perhaps, is consequently suffering. Speculation in real estate is quite active and has been for the past two years during the building of the Southern Pacific railroad, recently opened here. While there are large numbers of purchasers, there are a still larger number of would-be sellers, and the real estate brokers display on their bulletin boards numerous descriptions of property for sale, any one of which would make Eastern men almost crazy to possess them.

The failure of Messrs. Temple & Workman's bank recently has proved very disastrous to many. Mr. Workman has since committed suicide, and Mr. Temple is greatly agonized in mind by the ruin and disaster which has befallen the friends and customers of that time-honored institution. Money is very scarce, and fine opportunities are offered to persons seeking investments. I learned that real estate had advanced from five to ten times the price it realized some 12 years ago.

In my next letter I purpose saying something of the very important wine interests of this section of country.

GEORGE G. W. MORGAN.

Los Angeles, October, 1876.

Colusa County.

The autumn season has again arrived, rain and frost have re-appeared—and too soon for some few who have yet some stacks of wheat to thresh. What a harvest season from June to November! For weeks yet the farmers' teams will be engaged in hauling wheat to river and railroad, though the principal bulk of it is already delivered at storehouse or shipping point and many of the large summer fallow and volunteer tracts are seeded and harrowed in ready for the next crop.

The yield throughout the county has been very good except a few thousand acres of the choicest land on the lower end of Grand island, and some of the low lands aloog the Sacramento, and especially on the east side, where the Parks dam helped to set the water back on them, were drowned out. There are some great exhibitions of more than Spartan courage shown on these rich bottom lands by men carefully tilling and seeding thousands of acres, and when drowned out reseeding it to again be drowned out, and nought to be seen for their toil and seed but an immense crop of weeds.

The railroad from Woodland to Williams has been of great convenience to the farmers, allowing them convenient shipment depots along the line.

Arbuck'e City

Is the first passenger depot in Colusa county, and has already a fair beginning for a thriving little place, being surrounded by rich lands mostly owned by T. R. Arbuckle, who donated the town site. Two miles distant is

College City,

The seat of Pierce Christian college, established two years since on lands donated for that purpose. The institution takes pupils of both sexes and all grades of scholarship, and seems to be thriving as to number of pupils and reputation among its patrons. Its aim is to give a thorough academic course of education that shall be Christian and not sectarian. No intoxicating liquors retailed, recommends the town as a good residence for persons too weak to resist temptation.

After passing Arbuckle City there are freight stations along before arriving at

Williams,

The present terminus, where the stages for Bartlett and Allen springs, Colusa and Princeton, are waiting to convey passengers to their destinations. Williams seems to be confident that it is the place for a big town. Its stables, saloons, stores, shops and storehouses, indicate big hopes. Mr. Williams, after whom the town was named, has a splendid brick residence, lighted by private gas works, and is now erecting a very large two story brick hotel, nearly covering a block, to be presided over by Mr. French, formerly of the Colusa house, whose popularity will insure ample patronage. Jesse C. Stovall has a storehouse 84x200 feet for his wheat crop, and expects to double its size.

Colusa,

On the west side of the Sacramento river, is the county seat and great center of trade and business. Has its bank, county records and courts, its two weekly newspapers, its large supplies of every description, and its cheap transportation to San Francisco by all kinds of river crafts. Its social, religious and agricultural advantages, all combined, speak well for its permanent prosperity.

There has not been as much activity shown in manufactures here as might be expected. Partially to redeem it in this deficiency the firm of Reed Brothers & Brower are manufacturing a new self-regulating windmill that was patented March last through Dewey & Co., San Francisco, which claims several points of special excellence over other good mills. They have erected several in the county that are highly satisfactory to the purchasers. L. F. Moulton has one erected on an oak tree 70 feet from the ground, and proposes to run two pumps with it. The 12-foot mill costs $120 erected and thoroughly warranted.

The Cotton Experiment

Made by Rutland & Co., about six miles below Colusa, seems as successful as the quality of land would warrant. When I visited their fields two weeks since, they were picking with about 70 Chinese, had baled about 20 bales, of about 350 pounds each, of very fine looking lint, and seemed hardly to have begun their task. Much of the land is called the rim of the bottom land, not best adapted for success with cotton. One drawback is the difficulty of getting cheap labor to pick it, for few white laborers would pick it at going wages.

The Teachers' Institute

Of Colusa county held its session from Monday till Friday, presided over by the county superintendent, S. Honchins. About 50 teachers, one-fourth of whom were ladies, were in attendance. State superintendent, Prof. E. S. Carr, and wife, were also present during part of the session, adding much to the interest of the occasion, and giving evidence of their thorough interest and aim to advance the common schools to the greatest practical utility. Mrs. Carr gave in very acceptable language what she saw at the Centennial in the educational departments, and the practical workings and success of the kindergarten or sub-primary schools. None who heard her doubted but her visit East was one of special labor and successful study and observation. The length of this communication prevents mentioning even the prominent features of the institute. The teachers as a whole made a very respectful showing of digoity and talent, the ladies endeavoring to make up in brilliancy what they lacked in numbers. In some counties parents, ex-teachers and other professionals attend, and signify their interest in the cause, sometimes by more than a simple presence, as I recollect of attending an institute where, in discussing the question "How much study should be required out of the school," some of the parents made excellent remarks. At another institute a lawyer had some things of practical nature to present that he had learned in his practice that he did not find in the arithmetic. In another institute the editor of a local paper gave his idea of the best method of teaching chronology, illustrating it on the blackboard, but did not occupy more than five minutes of the institute's time in telling the Cornell university method. Some may see objections to any but teachers taking part in the institute's discussions, but the practical effect is to make a live interest in the meetings, and prevent the teachers fossilizing for want of contact with the practical world. When you look over a teachers' institute and fail to see any parents of children there, something is lacking. The same parents that employ these teachers are loud against the expense of these meetings of teachers; but that opposition would cease if they were aware of the need and benefits of these gatherings. In this institute there seemed to be a conscientious aim to conduct it for solid improvement, and throughout the session showed commendable respect for their county superintendent.

Friday evening spent as a re-union of teachers and friends—music, speeches, toasts and social conversation; and by those present much enjoyed.

C.

Colusa, Oct. 25th, 1876.

Berryessa Valley.

EDITORS PRESS:—Considerable changes have taken place in Berryessa valley in the past few months, whether for the general good or simply for individual emolument, time will reveal. The fine ranch of Mr. John Lawley has changed hands, and Mr. A. Clark is now the fortunate owner. Seven years ago Mr. Clark was a renter on that ranch. So the wheel of fortune turns. Mr. Clark has also become the purchaser of the ranch owned by Mr. R. C. Gillaspie.

Mr. Scribner, proprietor of the Napa and Knoxville stage line, has purchased the ranch owned by Mr. A. F. Goodwin, and also one adjoining owned by Mr. H. Reddick, of Solano county. Thus the land of Berryessa is being monopolized, which is unfavorable to the number of permanent settlers necessary for the formation of society and good schools.

But while these things are so, there are some signs of permanency. Mr. P. S. Bottorff has erected him a very neat, substantial and convenient dwelling house, which stands on his splendid ranch as monarch of the valley. Messrs. Buford & Smittle have each done some valuable improving in the way of barns and other conveniences which indicate permanency. Mr. Scribner is also improving the ranch purchased of Mr. Goodwin.

The crops of Berryessa were very fine, perhaps never better, so that notwithstanding the low prices of grain the farmers may be said to be in a flourishing and prosperous condition. The exact amount of grain and hay raised in the valley I am not now prepared to give, but will try to report soon.

The near approach of the Vaca Valley railroad to Berryessa has materially shortened the distance of transportation, and lightened the heavy tax of the farmers. A few hundred dollars more expended on the canyon road, will make it so fine that the farmers of Berryessa can put their grain at Winters for about half what it costs to put it at Napa. More anon.

OMEGA.

Monticello, Cal., Oct. 12th, 1876.

AN INCH OF RAIN.—Few people can form a definite idea of what is involved in the expression—an inch of rain. It may aid such to follow this calculation: An acre is equal to 6,272,640 square inches; an inch deep of water on this area will be as many cubic inches of water, which at 277.274 to the gallon is 22,622 5 gallons. This quantity weighs 226,225 pounds, or 100.93 tons. One one-hundredth of an inch of rain is equal to one ton per acre.

POULTRY YARD.

M. EYRE, JR., Napa, Cal., Corresponding Editor of this Department.

Cultivating Geese for Market.

This is a work of considerable importance in this country. We are not, perhaps, such goose-eaters on this as are the people on the other side of the Atlantic. Yet great numbers are cultivated in locations contiguous to good city markets; and where the advantages are at hand for their easy culture, geese may be kept and reared to good profit.

The best varieties of geese, for all purposes, are the great Hong Kong (Chinese), the White Bremen, or Embden, and the Toulouse. All others are inferior in size or quality for purposes of general utility.

The goose lives to a great age (if not destroyed in early life,) with a fair care and feed. For breeders, the old stock—from three to ten years—are the best. They lay the largest eggs, and are the best mothers after they are four or five years old. But for marketing purposes, the goslings must be started early in the spring, and should be grown and fatted, as a rule, the succeeding Thanksgiving and Christmas.

Geese are saleable in market, however, at all times in cold weather. Fine, fat, well-dressed goslings—that is, nine to ten months old—are always desirable; and, if well grown, will always command a good price dressed.

The Hong Kong, the Embden (or Bremen), and the huge Toulouse ganders have been bred with the common goose in Europe and America for the last thirty or forty years, more or less; and a considerable increase in the size and weights of marketable geese in such cases has resulted.

In this country, some twenty-five years ago, several fine importations were made of the Embden (or Bremen) and the Toulouse goose, for breeding purposes, which were bred and sold all over this country for mating with the common goose, and which occasioned a vast improvement in the domestic race of geese wherever they were tried.

At the present time there are many splendid yards of these grand varieties bred in their purity in various parts of the United States; and it is certainly an object to all who produce this stock for market to have a good gander of some or all of these large varieties upon his premises. Crossed upon the common mongrel goose they are valuable, inasmuch as the size and weight of the product is thus very sensibly increased at once.

Where the facilities are at hand, and the location good, for the propagation of geese, they are the most profitable of all marketable poultry. They will grow much easier and keep in better condition upon grass, on the floating garbage upon the water by the banks of the brook or river, in the muddy pools and by the shores, than will any species of domestic fowl.

They are generous feeders, however, and are not particular about their food, so that they have sufficient in quantity. Their carcases are valuable when fatted and dressed. There is comparatively little offal when they are killed. Their feathers, as every housewife knows, are of considerable account. And when young and tender they are a very desirable table-dish, as all are aware who, in the proper season, indulge in "roast goose," when they can obtain it in good condition.

The requisites for keeping and rearing geese to advantage are few, but essential. They must have a grass range. They will not thrive in confinement. The old worn-out pasture, the soggy, unused marsh or swampy meadow, the moist or watered ground where cattle cannot graze to advantage, flats bordered by fresh or salt water, the grounds through which estuaries fill up twice a day with the tide, running streams in vale or woods—any kind of wet neighborhood, pond, stream or river is a good place around which to raise geese. The better their feeding grounds upon such places, the less they devour at home, and the poorest of pastures will suffice for their grazing.

They must be kept out of gardens, orchards, cultivated fields and wherever crops are growing. They are very destructive in such places; and in the pastures, after all other animals have close-grazed the turf, the goose will go deeper and get fat upon what remains behind the horses, cattle or sheep. Unless the pasture is very poor, any grazing animal will feed in it with geese—the old notion that the goose renders the sod offensive by its droppings having long ago been exploded as a fallacy, unless the space allowed them be quite limited. After they are two months old mine are never fed. They find their own living all the year round. When grass dies out they join the sheep in the stubble field.

Water is their natural element. They do well in extensive rough pasture grounds, however, with but little water privileges. Through the summer and early fall they will thus pick up most of their feed. But when they are to be fatted for market they must be confined, comparatively, and should be full fed for a few weeks on corn, vegetables and good grains to killing time.

Breeding geese are best after three or four years old. The gander should be older. Eggs from young geese do not hatch well. One gander to three geese is sufficient. When the gander abuses any one of his two or three wives, she should be taken away from him

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Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Grangers' Business Association of California.

Notice of Assessment. Principal place of business and Secretary's office, Grangers' Building, northeast corner of California and Davis streets, San Francisco, Cal.

Notice is hereby given, that at a meeting of the directors of the Grangers' Business Association of California, held on the 31st day of October, 1876, an assessment of two and one-half dollars ($2.50) per share was levied upon the capital stock of the said corporation, payable in gold coin of the United States, to the Secretary, Amos Adams, at his office, No. 40 California street, San Francisco, Cal., on the 10th day of November, 1876.

Any stock upon which this assessment shall remain unpaid on the 30th day of December, 1876, will be delinquent, and advertised for sale at public auction, and unless payment is made before, will be sold on the 17th day of January, 1877, to pay the delinquent assessment, together with the costs of advertising and expenses of sale. AMOS ADAMS,

Secretary of the Grangers' Business Association of California; Office in Grangers' Building, 40 California street, San Francisco, Cal.

Copies of the Constitution and By-Laws of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

P. of H.—Subscribers who pay fifty one year ($4) in advance for the Pacific Rural Press can receive the California Patron *free*, or other premiums. See our premium list in another column.

Meeting of the Oregon State Grange.

Editors Press:—Your letter of the 27th ult., has just come to hand, and as we allowed no reports of our proceedings to be published, I cannot comply with your request, but will say that the meeting was a most harmonious, and I hope a profitable one. As you no doubt are aware, there have been divisions among us growing out of our business relations that have very seriously injured us; we moved forward beautifully until the failure of the E. E. Morgan's Sons took place. Our total loss was only about $4.000. From this time our friends, through the assistance of our enemies, lost confidence, or became afraid to unite in business. The Master and Executive Committee were made the "scape-goats," and those of our members who sought the destruction of our organization embraced this opportunity to establish confusion and destroy confidence in the officers of the State Grange and our business plan. Anonymous letters were freely circulated; in fact, the only surprise is, that we continue to exist as an organization: it is due to the fact that all this time we have had at least a few true Patrons, who have formed a nucleus around which our beloved Order has again rallied, and as I said before, our State meeting was a complete success. The representatives of our strongest opponents worked with us in the most perfect harmony.

Co-operation.

Corporators were selected and full arrangements made for incorporating a company on the co-operative plan, which is designed to be our division of the Anglo-American organization or association, with a capital of $50,000, which no doubt will be increased after organization is completed to suit our wants. Shares are $5.00 each, and of this stock several thousand dollars were subscribed at the meeting.

Correct Accounts.

After the most thorough and searching examination the committee on returns of Subordinate Granges, the committee on State Agent's report, on Executive Committee's report, and the finance committee, reported all accounts kept in a masterly condition, and recommended a vote of thanks to each of those officers. Now, when you come to understand that each of those committees were at least in part composed of those who were looking for errors, you will easily see how they, being true Patrons, were captivated and overwhelmed with joy to find the accounts in a most satisfactory condition, and our State Grange and agency is in much better condition financially than had been anticipated.

The State Agent's

Report shows that department to not only be self-sustaining, but that it has cleared several hundred dollars in the last ten months under our new system. The Grange resolved to continue the agency until the new company was fully organized, and $25,000 of the capital stock paid in, when it (the agency,) will be turned over or merged into the new company, all of which was done with the greatest possible unanimity, and each member left the Grange enthusiastic with the prospects of future harmony, success, and prosperity, each apparently having resolved themselves into a committee of one to push our cause forward to ultimate success. The officers elected for the ensuing term of two years are as printed in your issue of October 21st.

Daniel Clark, P. M., O. S. G.

Salem, Oregon, October, 1876.

Pomona Grange in Colusa County.

Editors Press:—Pursuant to a call the Patrons interested in organizing a Pomona Grange met at Colusa, October 24th, for that purpose. A telegram received at Grange headquarters summoned me to attend on that day, which I endeavored to comply with by leaving this city at seven A. M., via Vallejo. In this case it is proper to say that "man proposes," but railroad disposes, as it was nearly four P. M. when Williams station was reached, and there was still a stage ride of ten miles to Colusa, which town was reached in due time. On alighting from the stage I was cordially received by Bros. Totman, A. D. and H. A. Logan, Jacob Myers, Peter Peterson and other true and well-tried Grangers, whom I had met here and elsewhere at our annual gatherings. I was astonished to hear that they had given up hopes of my coming, and had dispersed; but runners and the telegraph were soon busy calling upon the Patrons to reassemble in the morring, which they did in goodly numbers.

The question of organizing a Pomona Grange for Colusa county having been freely discussed the previous day and unanimously decided in the affirmative, I proceeded with the work. The charter list having been duly signed, the Grange proceeded to elect officers for the ensuing year as follows: M., H. A. Logan, Antelope Grange; O., Jacob Myers, Grand Island Grange; L., J. R. Totman, Colusa Grange; S., A. D. Logan, Princeton Grange; A. S., J. P. Kimball, Center Grange; C., F. B. Read, Colusa Grange; T., John Sites, Antelope Grange; Sec'y, Peter Peterson, Antelope Grange; G. K., David Lewis. Colusa Grange; Pomona, Mrs. Louisa M. Totman, Colusa Grange; Ceres, Miss Rebecca Logan, Antelope Grange; Flora, Mrs. Laura E. Sites, Colusa Grange; L. A. S., Miss Katie Jones, Colusa Grange. All of which officers were duly installed.

In the evening the fifth degree of the Order was conferred upon the brothers and sisters of the Grange who had not previously taken it; and to the credit of the members of Colusa Pomona Grange be it said that I have never seen this beautiful ceremony more perfectly rendered, and the effect was very satisfactory.

At the conclusion the Patrons adjourned to the Grangers' hall, where a most bountiful "feast of Pomona" was provided. Such luscious grapes, immense pears and fine apples are seldom seen, and in such great abundance as to astonish the invited guests, who were exclaiming their surprise, and wondering where so much fruit came from. Innocent souls! did they ever know the Grangers to undertake anything of that kind and fail? The word is not in their dictionary; no! not as long as our fair sisters have willing hands and hearts to work in our good cause. The "feast" was pronounced a great success and was enjoyed by all who had the good fortune to partake of it. Bro. W. S. Green, of the Colusa *Sun*, and Mr. Hatch, of Colusa, both spoke to the assembled audience, and after a few words from myself, the festivities were brought to a close.

On the following morning I bade adieu to the good sisters and brothers who had so kindly contributed to my enjoyment while among them, and started homeward.

The good effect of the Pomona Granges is already being felt wherever they have been organized; that they can be made of great benefit to the Order, when properly conducted, there is no room for doubt, and we hope to see the Patrons of other counties take the necessary steps for the organization of Pomona Granges in their respective jurisdictions; but I would not recommend them to do so unless they are determined to make them a complete success. No more *failures*, if you please.

T. H. Merry, State Deputy.

Notes of Travel.

[By W. M., J. V. Webster.]

Editors Press:—Being detained for 24 hours in consequence of no train going East on Saturday, and as a warning to those who may follow me, I will state that there is no hope for a fellow leaving San Francisco on Tuesday, wishing to go East, but to rest his bones here from 4:15 P. M. Saturday until 4 P. M Sunday. We have had rather an uneventful trip thus far. It is true we lost all of our passenger train, with the exception of one car, near Cape Horn, in the high Sierras, and did not miss it until we got half way down the mountains, when we had to back up and hitch on again. One consolation the passengers in the lost train had, being left so near Cape Horn they could hold on to that horn of the dilemma until the engine returned. It having recently rained along the whole length of the road, and there being but little snow in the mountains, the trip across the plains is at present quite attractive—that is, if it were not for the shams and impositions on the route.

It appears to me that the people of California are more generally imposed upon than those from any other portion of the Union, for the presumption appears to be universal, that every Californian, as a matter of course, has his pockets full of golden rocks, and the only remorse of conscience visible among side-inn, peanut and curiosity venders, is the reflection that a customer once in a while gets out of their clutches with a little money left. Their scramble for the little money a fellow has left reminds one of a pack of hungry wolves pouncing upon a band of famished sheep while in the attempt to quench their thirst at the scanty bog-holes of the desert. It is true the train passes through "Hell Gate," and it appears to be wide open all the time. This fact possibly accounts for the passengers' embarrassments.

At Green River, although 100 miles from "Hell Gate," the worst imps of his satanic majesty appear to be congregated. It is the River Styx of the whole route, and woe be to him who enters its dark waters.

They, "the imps," have a hotel there, and the darkest ones have a "lunch room." I did not go to the "hotel," but went to the "lunch room" and paid 40 cents for a small cup of coffee made of beans or rotten barley. My friend Colton went to the hotel for dinner. When he returned, stretching himself to his full hight, then bringing his ponderous fist down on the back of a seat, with a force which made the whole car shake, he exclaimed, "By Jupiter, if that dinner don't beat Billings! I have traveled around this earth three several times; I have dined on wild tiger in the shambles of Bengal, I have drunk whale oil by the quart under the frozen serpent, I have lived by the month on hope and salt water, but Green River has afforded me the darndest, scantiest, dirtiest, most disreputable dinner I ever had." Poor coffee! How sad it is to see an old friend abused. Upon every hand the call was heard, "Here's your nice, new, hot coffee;" when coffee was a stranger in the land where his name was so commonly and sacreligiously used. Tell all our California friends who design going East, to send before them a few sacks of good old California barley, out of which to make their coffee, for the beans and cheat out of which the natives make it is a slur and a reproach to good barley.

Don't forget to tell our California friends not to start East on Tuesday, unless they wish to go by the way of Chicago, as there are trains running in no other direction from here on Saturday. Tell them to live on the refuse of their lunch baskets while passing Green River, and avoid the bog holes and man-traps of Omaha as they would a pestilence. This town has got its growth and had as well be fenced in. It is claimed that there are 25,000 inhabitants living in this city. Perhaps there are, counting frogs and all. At one time, some years since, its founders expected to make this a great commercial city, but their expectations have not been realized; consequently their plank sidewalks are rotten and full of manholes. Their streets are given over to the extreme of disorder, mud and filth. Property has depreciated here, from what I can learn, from 50 to 90 per cent. As an illustration, I was informed by a railroad agent who has been here some 20 years that he purchased 100 acres of land adjoining the town, early in its history; that he several years ago was offered $135,000 for it, but he was waiting for a "rise," and consequently has his land yet, and at present it is not worth $10,000.

Omaha, Neb., Oct. 22d.

Pomona's Feast.

Editors Press:—Will you kindly give space in your valuable paper to extend our thanks to the brothers and sisters who so kindly and generously contributed to the Pomona Feast held at Redmen's hall, on Friday evening, October 6th, 1876.

To Brother and Sister Demming we are not only indebted for liberal fruit offerings, but to them, assisted by Sister Colby, Brother Fassett and others, should be credited the exquisite arrangement of fruit and flowers which attracted so much attention and well-merited praise. A chest of strawberries from Bro. J. A. Wilcox and prepared for the table by Sister Wilcox, served not only as an ornament to the table but were most deliciously palatable. The display of fruits and flowers, about which so much has been said and which has not been excelled at any horticultural exhibit this season, were received from contributors through the Business Association, so that we have been unable to learn the names of all the parties, but the following have been obtained: Dr. Strentzel, of Martinez; J. Lewelling, St. Helena; R. B. Blowers, Woodland; Bro. Fassett, Sacramento; Bro. Blanchar, Napa; Bro. Thompson, Suscol; Bro. Jones, Walnut Creek; Worthy Master J. V. Webster and Bro. and Sister Dewey.

Mr. C. H. Denison, of Oakland, sent a choice collection of flowers. M. J. B.

San Francisco, October 31st.

Farmers' Ins. Co.—The S. F. *Land Circular* prints the following: "Our insuring public will find it to their advantage to carefully peruse the card of the California Farmers' Mutual Fire Insurance Co., No. 38 California street. This company is undoubtedly one of our safest and best managed fire insurance companies, which offers to the insuring public the greatest facilities. The men standing at the head of the above institution are all well and most favorably known on this coast and their record, as well as the excellent record of the Farmers' Mutual Fire Ins. Co. itself, fully justifies us in recommending the latter heartily to all who wish to insure their property against the ragings of the fire fiend."

Words From a Matron.

Editors Press:—I have been promising myself for a long time to hunt up some items worthy of interest and write you. I realize that if we each occasionally send items for your columns it will help to make variety, and, although this part of the variety may not prove so very interesting, it may do a little good by way of contrast.

I shall have to give the old, old excuse of many another wife and mother for not fulfilling my promise sooner—too many cares. I often wonder, will the millenium ever come, when we can work our eight or ten hours a day and then rest? O, I wish that some bright soul would devise a plan by which our farmers' wives and daughters could do the necessary work, and also get the needed rest which so many pine and suffer for. I do not so much wonder that our daughters seem to prefer husbands from other walks in life, or that they should prefer other occupations to housework, especially housework on a farm. They have not kept their eyes open if they have not observed the difference between housekeeping in the country and town. There is, I think, no class of people worked so hard and paid so poorly as farmers, both men and women. Can you not, dear Press, who seem so wise in many things, tell us the remedy for this state of affairs?

Saturday Meetings.

I am frequently reminded of late of my absence from the Grange, and requested to rise and explain. I answer, as I presume many another Matron can, because the Grange meets Saturday. Our children are in school during the week and when Saturday comes, want, and, indeed, need mother. If we wish to have our house in order for Sunday that we may either rest quietly at home or go to church, it rather necessitates our being home Saturday. Our Grange usually meets at 10 A. M., and if I go at all, I wish to be prompt, and so the day is spoiled for work. Now, having gone to the Grange on Saturday I must either stay at home Sunday to put my house and little ones in order or stave the work off until Monday, and have it added to the not very easy cares of washing day. Did the Grange meet on any day between Monday and Saturday, I should be a much more regular attendant. How many of my good sisters can say the same?

Gambling at Fairs.

I was glad to see your illustration of the "wheel" as shown at the State fair. I feel like bidding you god-speed in the good work and hope that you will still "fight it out on that line." But it is not only at the State fair that such things have been tolerated by any means. Our own county society (and I presume every other in the State,) have had at least two "wheels," and I do not know what other honorable (?) devices for fleecing the foolish. Some claim that if horses are speeded at all, such things must be. I do not believe that, but if it is so, then stop speeding horses at agricultural fairs. I do know that pool-selling and gambling of all kinds could be shut out if the society and its managers so wished. The people are becoming so disgusted with the obnoxious features, that fairs throughout the State have not been a very decided success this year, I think. Now, I would propose to the managers of fairs in 1877, that they leave the gambling department entirely out, even to horse racing, except to speed horses, one at a time, against time, in which case the fastest horse would get the premium, and it would be much more agreeable to the waiting crowd, as one horse could follow another in quick succession, and there would be no half hours wasted in scoring. More anon. L. J.

Santa Clara, Cal.

In Memoriam.

Newcastle Grange, No. 241, Newcastle, Placer county, Sept. 14th, 1876.

Whereas, It hath pleased our Divine Master to remove from our Grange circle our cherished sister, Nancy J. Prosser, to that circle above where the weary are at rest, in that house not made with hands, but eternal in the heavens,

Resolved, That in obedience to the call of our Heavenly Master, Newcastle Grange has parted with a kind-hearted and faithful member, a most worthy sister, and that we most sincerely mourn the broken link.

Resolved. That we extend our most heartfelt sympathies to our bereaved brother Treasurer, who has thus been separated for a time from a faithful and loving wife, as also to her mourning relatives and friends.

Resolved, That this sincere expression of the Grange be placed upon our records; that our charter wear the usual badge of mourning for 60 days, also, the members of this Grange; a copy thereof be sent to our bereaved brother, the Placer county papers and Rural Press for publication.—[Committee: Mrs. J. Griffith, W. H. Brainard; Maggie A. Greeley, Sec'y.

Debates in the Grange.—The members of Healdsburg Grange have decided that the discussions in the Grange, of propositions pertaining to the various branches of farming, will be of vital importance to all the members of the Order. Such discussions give to all the members present the advantage of the ideas and experience of the speakers. They also have a "query box" in which the members deposit questions and resolutions for debate, with or without their names attached.

What the Grange has Done.—The Grangers have brought the price of wheat at least ten cents a bundred nearer the Liverpool market than it ever was before or ever would have been but for their action.—*Colusa Sun*.

Agricultural Notes.

California.

COLUSA.

COTTON.—*Sun*, Oct. 28: Messrs. Rutland & Co. have shipped 12,000 pounds of lint cotton, and have now on hand 3,000. The rain will set the picking back and turn the cotton a little yellow, but they will not lose much.

BRANCHING OUT.—Chico *Enterprise:* George W. Hoag informs us that he is going a little deeper in the farming for next year. He has made arrangements to put in 15,000 acres on the Glenn grant and 2,500 on the Mnd ranch, at the Willows, making 17,500 in all—a pretty large farm for one man. Mr. Hoag is a pushing, energetio man, and we know he can handle it, and make something out of it.

KERN.

RAISINS.—*Courier*, Oct. 26: We have received some very fine bunches of raisin grapes from Mr. P. A. Stine, comprising the following varieties: Rose of Peru, White Malaga, White Shassler, and Muscat of Alexandria. They are of a superior flavor and the yield is enormous. Mr. S. is now engaged curing raisins, of which he expects to make this year two tons.

LAKE.

FINE TOBACCO.—*Democrat*, Oct. 28: A. H. Poe sent us this week a fine sample of tobacco raised and cured by himself near Upper Lake. It is of fine flavor, the leaf long and of fine texture, good color, and proves conclusively that good merchantable tobacco can he raised in Lake county.

LOS ANGELES.

ITALIAN CHESTNUTS.—*Express*, Oct. 28: Mr. Ned Huber has placed on onr table a fine lot of Italian chestnuts, raised from the trees in O. W. Child's nursery. These chestnuts are very large and the meat plump and toothsome. From the few trees in bearing about 600 pounds of nnts have been picked this season, and 210 pounds have been readily sold at 50 cents per pound. There are three large trees of the Italian variety on the place, and about 15 young ones. The largest of the three measures about three feet through. The Italian chestnut is proved by the success of these trees to be perfectly adapted to our soil and climate, and there is a good profit in their growth here.

MERCED.

SHEEP FEED INJURED.—*Express*, Oct. 28: Rain just at this juncture is not such a welcome visitor as later in the season; grass would he rendered almost nseless for sheep feed, and in consequence stook of all kinds would suffer immeasurahly.

GRAIN BURNED.—We understand jnst as we go to press that on Thursday last 200 sacks of grain—whether wheat or harley we do not know—helonging to J. W. Morley, who lives three miles this side of Plainsburg, were destroyed by fire. The fire originated from the dangerous and precarious practice now indulged in by the generality of farmers in this section, of bnrning off stubble. The stubble on the farm lately owned hy Mr. Samuel Johnson, near Mr. Morley's farm, was fired on Thursday morning by Mr. Mason, and towards evening the wind rose, the stubble fire became nnmanageable and resulted as above stated in the destruction of the grain. Here is but one of the evils almost necessarily conseqnent upon burning stubble, bnt this is but a tithe of the evils resnlting from so wastefnl a practice. Farmers should never, under any circumstances, bnrn their stubble, for it is a waste of one of the best fertilizers known to grain raisers. Besides, all old farmers concur in the opinion that heating the ground renders its productive properties less certain for grain raising.

MONTEREY.

THE VALUE OF SHELTER.—From the opening address at the Monterey fair, delivered by Hon. C. S. Abbott, we take the following: The snbject of shelter has not been sufficiently considered or discussed in this country. When yon cut down a large piece of woodland, you change the climate of the tract of land which has been sheltered by it from the force of the prevailing winds. When you clothe a piece of land with timber, you make a milder climate for the land lying to leeward and sheltered by it. Who has not observed that the vegetation was much the rankest on the leeside of a fence, as onr winds in summer time always blow in the same direction? Instead of the fence, suppose a belt of gum trees (say 20 or 30 feet wide) were planted across the valley every half mile, which in 10 or 15 years would be from 60 to 100 feet high. This would not only furnish fuel for the entire population, but would entirely break the raw coast winds from the valley. Then the light showers that fall dnring the night at the close of the rainy season would have the desired effect on the growing crops, instead of being licked up by 10 o'clock the next morning hy a gale from the northwest. The roots of the trees would strike deep into the soil, sap the moisture from the earth and diffuse it thorough the pores of the leaves into the atmosphere. A large percentage of the tree itself is water; moisture attracts moisture, hence it is more likely to rain in timbered conntries than on arid plains. Take for example, the amount of rainfall from Cape St. Lucas to Puget sound and yon will find that it varies from 60 inches to nothing, according to the density of the foliage. Irrigation, for the same reasons, not only benefits the land over which the water is poured, but the drying winds that pass over these lands are tempered by the moisture; and the adjacent fields of growing crops are benefited hy these breezes instead of being injured hy them.

SAN BENITO.

AGRICULTURAL SOCIETY.—*Enterprise*, Oct. 28: There will he an annual meeting of the stockholders of the San Benito agricultural society, on Saturday, November 4th, at 12 o'clock M., at the office of the society, for the purpose of electing officers for the ensuing year, and transacting such other business as may come before them.

SAN JOAQUIN.

A BISECTED COW.—*Independent*, Oct. 26: We learn that on Saturday last, an Italian employed on Mr. J. C. Smith's dairy ranch, three miles from Stockton, on the lower Sacramento road, was driving a herd of milch cows belonging to Mr. Smith across a bridge on the road near the ranch, when he met Mr. Wardrobe's 12-mule team, drawing a heavily loaded wagon. The driver of the team not being able to stop it before reaching the bridge, it ran into the herd, the heavy wagon knocking down and running over one of the cows, literally cutting her in two. The strangest part of this strange accident is that the wagon was not upset, nor was the team precipitated in the slough below. It was a singular accident, and fortunate that it was no worse.

SAN LUIS OBISPO.

FRUIT.—*Tribune*, Oct. 28: Four miles below town, in the head of the "Beautiful valley," is situated Madame De la Guerra's farm, upon which she is growing a splendid young orchard. On Saturday morning last, Messrs. Henderson & Prefumo, on Higuera street, were the recipients of a box of pears from this place, the net weight of the fruit being 24½ pounds. Upon counting there were 9 pears. This was an average of 2 pounds and 11½ ounces. The largest weighed 2¾ pounds, and the lightest a fraction less than 2 pounds. They were the Easter Beurre (butter pear) variety, a late winter pear, keeping perfectly to the 1st of Jannary. These were only a sample of 200 pounds, that grew upon a 4-year-old tree. Madame De la Guerra kept some from the same tree of last year's crop, until the 4th of July. It strikes us that this pear might he made a very profitable source of culture for shipment, their keeping qualities being so remarkable. Gathered late, stored in a cool room until desirahlo to ship, they might be put into the New York market at a time when it is bare of this choice fruit. Inasmuch as all fruit is, at least, a month later with us than in the hay and Sacramento valley counties, winter pears and late keeping grapes should he extensively planted, with a view of supplying the San Francisco and Eastern markets. Those planting wisely at the present time will be the recipients of a handsome income within the next four or five years, for hy that time the coast line road will have been built, and rapid transit, a desirable element in fruit shipment, attainable.

ANOTHER LAND SALE.—Mr. J. H. Blackburn has sold his coast ranch known as the San Geronimo to Daniel and Alexander Smith, of Salinas City, for the sum of $25,000. This is reported as a superior dairy farm.

SANTA BARBARA.

INJURY TO LOMPOC WHARF.—*Record*, Oct. 21: During the late storm the wide portion of the Lompoo wharf was lifted from the rocks, into which the piling had been placed by drilling, and carried ashore. The damage to the company will not be so great as to the colonists who were depending upon the wharf for shipping facilities. The lumber will about all he saved; the only additional thing required will be some 50 piles, or such a matter. The company's losses and total expenses to replace the wharf will not exceed $3,000. The work of reconstruction will commence immediately, so that within 40 days the structure will he as serviceable as ever. During its construction vessels can come alongside the portion remaining and to be built, and receive and dishurse freight. The board of directors met promptly on Friday and resolved to prosecnte the work with all possible vigor. Messrs. Duhhs & Leege, Summers, Smith and Demartini, are the heaviest losers; they having quite an amount of grain, potatoes and mustard seed on the wharf awaiting shipment; several other parties sustained slight losses. The structure would have withstood all the storm had the floor been left loose or sufficiently open to have relieved the pressure.

SANTA CLARA.

DEATH TO THE SQUIRRELS.—San Jose *Mercury*, Oct. 28: The war of extermination on the squirrel tribe has commenced in earnest. The inspectors have filed their bonds and taken the field against the little pests. Following is the list of districts, etc., in this county: No. 1—Union, Los Gatos, San Tomas and Guadalupe school districts; E. W. Williams, Inspector. No. 2—Hamilton and Cambrian school districts; Daniel Ross, Inspector. No. 3—Saratoga, Lincoln, Moreland and San Tomas school districts; Frank Fullam, Inspector. No. 4—Berryessa, Pala, Orchard and Eagle school districts; W. W. Clendennin, Inspector. No. 5—Evergreen, Highland and Mt. Pleasant school districts. No. 6.—Calaveras and Laguna school districts. No. 7—Mountain View, Whisman and San Antonio school districts; E. E. Burke, Inspector.

MORE THOROUGHBRED STOCK.—Colonel William Shear, formerly Secretary of the late Pacific Jockey Club, now Secretary of the association for the importation to the Pacific slope of thoroughbred mares and fillies, has gone East for the purpose of bringing to this coast a recent purchase of thoroughbreds. The animals were shipped on Monday, in charge of L. R. Martin. They consist of the following: Mattie, a chestnut filly, by Australia, dam Minnie Mansfield. This filly, now four years old, is from the well-known McDaniel stable, and has been a successful racer at all distances. Jessie C. Black, filly, by Leamington; dam, Lexington. This filly is a full sister to the celebrated Milner filly, by Baywood, the sire of Bay Final, now in Europe with the Sanford string and other good ones. Colonel Shear was to have brought with him the brown filly Inspiration, by Warminster, dam Sophia, but she went lame in New York and was left. In addition to these, Chicago turfmen, a few days ago, shipped to Mr. Baldwin five fine fillies, purchased in Kentucky at high prices.

SONOMA.

AGRICULTURAL OUTLOOK.—Petaluma *Argus*, Oct. 26: At present the agricultural outlook in this county is as favorable as could be desired, though, of course, it is impossible to tell with any certainty what the final outcome will be. A larger area than usual was summer fallowed this year, and a considerable portion of it has been planted since the first rain. The new sown wheat and volunteer grain are coming up finely, and present a vigorous and healthy appearance. The temperature has been mild since the first rain fell, and there have been but two or three frosts, which were very light. Grass is growing rapidly, and in many places it is over three inches in length. A more thorough system of farming than was formerly practiced has been inaugurated, and we venture to say that no one who has adopted it regrets having done so.

LARGE SALE OF WETHERS.—*Democrat*, Oct. 28: J. D. Wathem, of Round valley, was in Santa Rosa on Friday. He has just disposed of a band of 2,000 wethers. They were sold for $2 a head at Geyserville, with the wool on. They would average 50 pounds weight dressed. This sale fixes the price of mutton sheep in this section.

SISKIYOU.

FRENCH CREEK.—Cor. Lake *Democrat:* In June last we sold the Maple Grove ranch, in Napa valley, and after camping awhile in Lake county and along the road, we finally brought up on French creek, where last week we purchased a quarter section and have settled for the time being at least. Of this valley I can say but little as yet. It is about 40 miles long and five wide, Scott river running the whole length. On either side of the river we find deep, rich black soil, generally near the water; but as we go back on the upland the color, quality and quantity of the soil changes from black in color to light and resembles ashes, and is supposed to be volcanic ashes, and becomes gravelly and is not so valuable. All the land except a narrow strip of the river bottom requires irrigation. One of the main objections I see is the too frequent visits of old "Jack Frost." You know not the time of his coming, causing the total failure sometimes of the corn and crops on this account. Seems to me the people do not overwork themselves, but believe in enjoying life as they go along; stay at home pretty well, not given to late hours, live easy and well. Dairying is the principal business; butter is worth from 30 to 35 cents at the door, with a good market.

Oregon.

THE STATE FAIR.—*Willamette Farmer*, Oct. 20: The receipts of the society, though considerably less than in 1875, were more than ever known in previous years. When we hear in mind the difference in circumstances and the change in prospects, we can only feel surprise that the attendance was so large and the receipts so encouraging. Last year, immediately after an abundant and satisfactory harvest, wheat rose to fully a dollar per bushel and money was abundant, so that all the farming community felt a degree of substantial prosperity that gave zest as well as opportunity for enjoyment of the State fair week. Of course, the prosperity of the farmers carried with it lively trade in all branches of business, and the consequence was a large attendance and most successful fair. There is no State in the Union where the holding of the annual fair constitutes a full week of so general holiday as prevails in Oregon, and it is to be hoped that the custom inaugurated in early days, and so happily maintained to the present, will be perpetuated and handed down through all the future. One circumstance that tends to insure that such will he the case is found in the fact that the State agricultural society owns so large a tract of land close to the State capital, which contains spacious groves that grow more delightful each year, where tens of thousands can make splendid camping homes, while the society is constantly making improvements that add to the comfort and permanence of the grounds. In the course of a few years we may look for substantial buildings to be erected that will afford ample accommodation for the whole exhibit, and give comfort to those who shall attend. It is desirable to fully sustain the popular interest, as well for the present good certain to result from competition in production and manufactures and the annual exposition of the advancement made as a cause for emulation, as to perpetuate the custom which is so peculiar to our State and so genial and wholesome in its results, and leave its kindly influences as a pleasant tradition and immemorial usage for the observance of our children through all the future.

Monterey Fair.

The enterprise displayed by the originators of the Monterey agricultural society has resulted in a very creditable display of farm animals and products. The fair was held at Salinas City, from Monday to Saturday of last week. The following is the list of entries:

ROADSTERS.—Hiram Corey, 3-yr-old stallion, Buena Vista; Kilburn Bros., 3-yr-old mare, Birdie; A. A. Witherill, 3-yr-old mare, Susie Patchen; J. G. Sanchez, 4-yr-old stallion, Quien Sabe; 4-yr-old mare, Minnie Sanchez; John Boyce, 27-yr-old stallion, Wine Creek; 2-yr-old stallion, New Republic; 1-yr-old stallion, Frank Doutrick; 1-yr-old stallion, Little Fred: David Bothwell, 9-yr-old stallion, Tom Vernon; John Boyce, 1-yr-old stallion, Brick Pomeroy; 14-yr-old mare, Michigan Kate; H. DeGroot, 4-yr-old mare, Snip; 3-yr-old mare, Santa Cruz Maid; 6-yr-old gelding, Barney; John Anderson, 7-yr-old mare, Puss; 1-yr-old stallion, Billy; 1-yr-old stallion, Rollo; M. Kelly, 1-yr-old stallion; R. Corey, 9 yr-old-mare, Fannie; J. W. Patton, 3-yr old mare, Maggie; V. Bidache, 4-yr-old gelding, Prince George; J. Pierce, 4-yr-old mare, Susie; M. L. Houk, 4-yr-old mare, Susie; J. Boice, 7-yr-old gelding, Gabilan Jack; J. Boice, 7-yr-old mare, Henrietta; George Pomeroy, 6-yr-old gelding, Big Jim.

HORSES FOR ALL PURPOSES.—M. Kelly, 1-yr-old stallion, 1-yr-old horse; R. Corey, 8-yr-old mare, Polly; 2-yr-old mare, Dolly, Jr.; G. F. Harris, span of mares for all work; J. D. Carr, 3-yr-old stallion, Vermont, Jr., 2-yr-old mare, Lady Ellen; 1-yr-old stallion, Thomas Elmo; V. Bidache, 2-yr-old mare, May Belle; T. J. Munroe, 3-yr-old mare, Flora; Hiram Corey, 2-yr-old mare, Belle of Monterey; 1-yr-old mare, Rosie; J. W. Patton, 3-yr-old stallion, Blazing Star; Z. Herbert, 2-yr-old colt, Black Nig; 4-yr-old mare, Lady Brown; one-year-old colt, Robert Bruce; Kilburn Bros., 4-yr-old horse, Black George; B. V. Sargent, 3-yr-old mare, Monterey Damsel, and 2-yr-old horse, Silver Winner; John Ball, 18-month colt; J. G. Armstrong, 5-yr-old stallion, John Franklin; A. A. Witherill, 3-yr-old stallion, Fred Patchen; J. G. Sanchez, sucking colt, Billy Mattbews; John Boyce, 1-yr-old stallion, Black Prince; John Anderson, 16-yr-old stallion, Duane; H. DeGroot, 3-yr-old stallion, Bismarck.

MARES.—James W. Finch, 4-yr-old mare with colt; John Ball, 8-yr-old mare; J. G. Sanchez, 4-yr-old mare, Fannie, with colt; B. F. Merrill, 3-yr-old mare, Annette; 7-yr-old mare, Sappho; A. J. Cugbeltree, 9-yr-old brood mare, Lucy; 7-months colt, Samuel J. Tilden; D. D. Cochrane, mare and colt; Victor Bidacbe, 15-months mare, Sarah.

CALIFORNIA DRAFT HORSES.—J. C. Storm, 3-yr-old mare Rebecca; 4-yr-old mare Fannie; N. L. Allen, pair of draft horses, Pete and Maggie; John Boyce, 2-yr-old mare, Susie; 9-yr-old mare with colt, Fannie; L. N. Willets, 9-yr-old stallion, Adolphe; 4-yr-old stallion, Leon; Milton Withers, 3-yr-old gelding, George; James Lynn, one span, 1-yr-olds, Robert Bruce and Punch; James Munroe, 2-yr-old gelding, John Franklin.

CARRIAGE HORSES.—J. C. Storm, pair of horses, Frank and Coolie; H. Whitman, colt, 6 months old, Boxer; Wm. Robson, single buggy horse, Curly; J. D. Iverson, single buggy horse, Frank; W. L. Carpenter, single buggy horse, Frank.

MULES.—J. M. Barbree, pair of mules.

DURHAM CATTLE.—J. D. Carr, 1-yr-old bull, Louan's Lord Oxford; 1-yr-old bull, Duke of Gabilan; 10-month calf, Geneva's Oxford; 10 month calf, Fourth Duke of Gabilan; 10-month calf, Seventh Duke of Gabilan; 4-yr-old cow, Pet of Geneva; 4 yr-old cow, Hope 22d; 4-yr-old cow, Laura; 3-yr-old cow, Third Maid of Monterey; 2-yr-old cow, Hope 23d; yearling, Hope 24th; 10-month heifer, Tenth Maid of Monterey. Wm. Robson—4-yr-old cow, Rosebud; 8-month calf, Salinas. Wm. Ford—4-yr-old cow, Highland Mary. C. S. Abbott—1-yr-old bull calf, Sharon Duke: 2-yr-old heifer, First Belle; 2-yr-old cow; 1 calf Clara; 1 calf, Agnes Maria.

DEVONS.—J. D. Carr, 3-yr-old bull, Duke of Devon; 3-yr-old cow, Victoria; 3-yr-old cow, Victoria Secoud; 3-yr-old cow, Fairy Second; heifer, with 10-month calf, Victoria Third; calf, Victoria Fourth.

HERD CATTLE.—J. D. Carr, 1-yr-old bull, Louan's Lord Oxford and 5 cows.

CASHMERE OR ANGORA GOATS.—C. P. Bailey, 1 thoroughbred buck, Soledad; 1 thoroughbred ewe, Queen of Monterey; berd of 10 goats.

SHEEP—SPANISH MERINO.—J. D. Carr, 5 rams, 7 ewes and lambs, 7 ewes. E. Sherwood, 5 ram lambs, 1 lot Merinos.

SOUTHDOWNS.—J. D. Carr, 4-yr-old ram, Salinas; 7 ewes, 5 ewe lambs, 9 months old.

SWINE.—J. D. Carr, 1 boar, Essex; 2 sows. J. R. Hebbron, 2 pigs under 6 months, boar and sow.

POULTRY.—T. G. Harris, Dominique, Sumatra Game, Ginger Red Game and Black-breasted Red Game. J. H. Harris, white Dorkings; pair ducks. C. C. Wilson, Irish Game, cock and hen. Z. Herbert, Buff Cochins, 6 and 9 months old.

RABBITS.—A. Salsbury, 3 rabbits.

AT THE PAVILION.—W. H. Wilson exhibited 17 varieties of apples, several of pears and quinces; S. Cassidy, 11 varieties of apples and several of pears and quinces; M. Riordan, display of apples; Mr. Dixon, pears; J. H. Harris, apples, potatoes, pumpkins and vegetables; W. F. Preot, lot of pears; J. H. Harris, California tobacco, hams, lard and bacon; H. Cory, box of butter; C. P. Kellogg, display of butter; W. L. Carpenter, display of cheese.

Northern District Fair.

The Northern District fair was held last week at Marysville. The following premiums were awarded for live stock:

HORSES. — Thoroughbreds — J. B. McDonald, best stallion, 1 yr old, Charley De Long, $15; J. B. McDonald, 1-yr-old gray filly, $10. Families—J. M. Hollister, b. m. Pet with three colts, $10. Graded Horses—D. M. Reavis, best stallion, 4 yrs old and over, Blackbird, $20; P. Wall, best mare 3 yrs and over, Minnie Bryden, $15. Draft Horses—J. Doty, best span Major and Bell, $10. Roadsters—J. B. McDonald, best stallion 3 yrs old and over, Brigadier, $15; A. Cross, best mare, Winchuck, $20. Horses of all work—John Ramsey, best stallion 3 yrs old and over, Wake-up-Jake, $20; D. M. Reavis, 1 yr old and over, Heitzic, $10; D. M. Reavis, sucking colt, Hunter, $5. D. M. Reavis, mare 3 yrs old and over, Nellie, $20; J. Hollister, 2 yrs old and over, Rosey, $15; D. M. Reavis, sucking filly, Jeunie, $15. Sweepstakes—J. B. McDonald, best stallion, Brigadier, $25; D. M. Reavis, best mare, Nellie, $15; Best Single Buggy Horse—J. Hollister, Pomp, $10.

CATTLE.—Shorthorn Durham Thoroughbred Bulls—D. M. Reavis, best 4 yrs old and over, Stonewall, $20; D. M. Reavis, 1 yr old and over, First Duke of Chico, $5; D. M. Reavis, calf under 1 yr, Fifth Duke of Chico, $5. Cows—D. M. Reavis, best 4 yrs old and over, Goodness, $20; best herd of 1 male and 4 females, Stonewall and family, $25. Graded Cattle—bulls—D. M. Reavis, best 1-yr-old, Young Stonewall, $5; best calf under 1 yr, Shaker Boy, $5. Sweepstakes—D. M. Reavis, best bull of any breed or age, Stonewall, $20; best cow, Goodness, $15. Angora Goats—T. H. Harlan, best buck 2 yrs old and over, Sheridan, $10; best 1-yr, Beecher, $5. Sweepstakes—T. H. Harlan, best Angora buck, Sheridan, $15; best ewe, Belle of Colusa, $10. Grades—T. H. Harlan, best pen of Angora ewes, 2 yrs old and over, $5; best pen of Angora kids, $5. Angora Robes—Dr. H. Cummings, of El Dorado county, favorable mention. Poultry—Joseph Clark, best trio of turkeys, $5; best bronze turkeys, $5.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.



"I Think of Thee Then."

A reader of the RURAL PRESS writes as follows: "The following lines, as nearly as the writer can remember them, appeared in print something more than 25 years ago. Should be glad to know their author:"

When night draws around us her mantle of rest
And twilight steals over the plain,
When the soft, rosy sunlight slow fades from the West,
I think of thee—think of thee then.

When evening her beauties spreads over the lea
And starlight bespangles the glen,
I turn from their splendors or share them with thee,
For I think of thee—think of thee then.

When the pale silver moon peeps over the hill
And bathes in its glories the main,
On sea or on land, go where I will,
I think of thee—think of thee then.

When storms gather darkly and thunders are loud,
And lightnings illumine the scene,
Forever the same—alone, in the crowd
I think of thee—think of thee then.

A Midsummer Song.

Oh, father's gone to market town; he was up before the day,
And Jamie's after rohins, and the man is making hay,
And whistling down the hollow goes the hoy that minds the mill,
While mother from the kitchen door is calling with a will—
"Polly!—Polly!—The cows are in the corn!
Oh, where's Polly?"

From all the misty morning air there comes a summer sound—
A murmur as of waters from skies, and trees and ground.
The birds they sing upon the wing, the pigeons hill and coo,
And over hill and hollow rings again the loud halloo—
"Polly!—Polly!—The cows are in the corn!
Oh, where's Polly?"

Above the trees the honey-bees swarm hy with buzz and boom,
And in the field and garden a hundred flowers bloom,
Within the farmer's meadow a brown eyed daisy blows,
And down at the edge of the hollow a red and thorny rose.
But "Polly!—Polly!—The cows are in the corn!
Oh, where's Polly?"

How strange at such a time of day the mill should stop its clatter!
The farmer's wife is listening now, and wonders what's the matter.
Oh, wild the birds are singing in the wood and on the hill,
While whistling up the hollow goes the hoy that minds the mill.
But "Polly!—Polly!—The cows are in the corn!
Oh, where's Polly?"
—*Scribner's Monthly.*

Centennial Chat—No. 11.

[Written for the PRESS by MARY MOUNTAIN.]

"Homeward hound" through Utah and the great American desert, I find time to review the rather meager notes taken during a second visit to Philadelphia in the fine, cool days of early October, when Dame Nature and all her children came forth in the warm tints of autumn splendor.

From the top of Mount Washington in the last week of August we had seen the first trimmings of crimson, scarlet and gold brightening here and there the solemn old forests that climb and forever climb those mountain walls and almost oppress the soul with a sense of lofty grandeur. All through September the glow of forest beauty grew broader and brighter, and the leisurely trip from the Atlantic to the great lakes was through the rich, warm splendors of the ripened year.

Everybody said, "How early the leaves ripen this year; does it mean that winter is so close at hand?" But for returning Californians there is no chill shadow of approaching or retreating winter to darken the brightness of any season; and like the summer birds they are up and away long before.

"The melancholy days have come,
The saddest of the year."

The brightest scene in this autumnal journeying was from a favorable standpoint in front of horticultural building, a point that overlooked all that was best worth seeing in an out-door view of the Centennial grounds.

The crisp sparkle of a racing breeze gave soul to this wonderful enchantment, and flags, turrets, fountains and flowers looked as truly alive as the gay throngs who marched briskly through the winding ways—a different looking crowd from the wilted pilgrims of last July.

And what different flower beds! The drooping slips of midsummer have grown and spread into brilliant masses of color—not even Flora McFlimsey, dashed with cardinal red, is arrayed like one of these! But no description or comparison can do justice to the October beauty of the Centennial.

Inside the buildings there is no more disorder of preparation, for the most tardy departments have put on their finishing touches and fallen into line with the great harmonious whole.

At the California Building

There is very little change. A small map and a few lithographs are hung upon the walls and a large glass case contains a fine exhibit of cocoons and raw silk from Newman, of San Francisco. We inquired what had become of the beautiful elk-horn chair that could not get itself presented to Dom Pedro, and were told that the indignant trapper had kept his word, for he repacked the chair and the wonderful mule's head fiddle and "emigrated" so fast and so far that no one could tell na what had become of him.

It was a great treat to go through the familiar ways and note the new things added here and there; and the new exhibits were nearly all in American departments. In agricultural building the wax fruit in glass cases was more than rivaled by the fresh apples and pears that fairly made the mouth water, a sort of magic that wax fruit is never guilty of.

Stopping to admire the Nebraska exhibit, we had a talk with J. W. Moore, who represents that State at the Centennial, and as usual the discussion grew warm over the merits of

California vs. Nebraska.

"I know how you brag of climate," said Mr. Moore, "but I have been there myself and found sick people everywhere. Yes, I was sick and went to Dr. Bourne's place in San Francisco, where I found as many as 10 ladies to one gentleman patient. How is it that your women are so good for nothing? I studied the puzzle and it sums up like this: *Your climate makes the women indolent*, and ill health follows of course."

Let no California woman think that I did not attempt a protest against this sweeping charge, as I thought of a great many of us who need nothing so much as a little judicious indolence. But Mr. Moore's polite utterance of facts (?) was at flood tide and could not bear the least ripple of rejoinder, though I stood before him gasping like a fish out of water, and fully aware that this man will have to die some day and never know what good things I had all ready to say to him. But he had been in California nearly five months and knew us too well to learn anything more from an old pioneer, and after doing us up brown in the matter of climate, sickness and laziness, he gave us the challenge direct, by saying that

California Cannot Begin with Nebraska

In raising good apples. Upon this we rushed to the rescue and told him we had never seen in California such a pale lot of fruit as his; hardly a ruddy or even red-cheeked apple in his whole collection. So we rattled away at our pros and cons before an audience of pilgrims who seemed to side with California, and some of them told us in a confidential way that they were soon coming to California and would we tell them where they had better go? Not one said anything about going to Nebraska; so I suppose we had the best side of the argument. Finally I told the fruit man that if he wished a good report of his colorless fruit he must let me taste it, and he did very gallantly present me with a Bellflower and a seedling that has as yet no name, but tasted better than the Bellflower, which was truly so insipid that we would not have suspected it of belonging to that royal family of fruit. Yet I will not condemn the Nebraska exhibit upon that test; very likely some of the fruit was crisp and juicy like our own best samples. And now, thinking to rejoice in the triumph of California, we led the way to the pomological hall, and pranced gaily along toward the department whose overhanging banner seemed to beckon all lovers of California fruit.

Alack and alas! Dame Hubbard could not have been half so mortified when she opened the traditional cupboard, for here not only were the shelves bare but there was such a pitiful stretch of bareness. In the first rush of disappointment, it seemed to me those shelves were about half a mile long, and truly they were as barren as the withered fig tree. We didn't say much, just sneaked right and left as though looking idly for nothing in particular; and our raptures over Michigan and Wisconsin were not at all equal to the merits of their handsome fruit and mammoth vegetables. Finally we reached the exhibit from Canada and our praise was no longer faltering. Here, as in all her departments, Canada furnishes

A Surprise for Everybody.

Her many tables stretched far and full, and if not the biggest, still for variety, beauty and excellence the Canadian fruit will lead the van. In Vermont and New Hampshire, we had just learned that from too much winter and too many worms and bugs they can hardly raise any more good fruit, their prime crop consisting of crab-apples and choke-cherries. So our astonishment over this Canadian display helped us to recover our spirits, and we were ready enough to joke about Yankeedom going to school to Canada to learn how to raise fruit.

A little quiet inquiry in regard to the nakedness of the California department seemed likely to disclose that some sort of commercial trickery had swept the boards, and will hereafter bar us out. Hoping this is not true we forgat our chagrin in the search for new wonders. In the main building we found a beautiful crystal of alum that weighs nine tons—18,000 pounds. Opposite was another cone-like mass of the same crystal clearness, and a monument of concentrated alum, smooth as alabaster. The main building is fascinating as ever with its long lines of glittering beauty, its sweet music, glancing fountains, and murmurs of admiration. But there is not nearly as much talking done here as in the more noisy buildings, where the general rattle seems to animate the tongue, and you will see those eager inventors and mechanics explaining the same things over and over with an energy that seems never to tire.

We heard a good story of a delighted Down Easter who was trying to take in the wonderful extent and glory of the main building and finally asked: "What building is this?"

"The main building, sir."

"By he Holy Jericho! I allers knowed old Maine could beat the hull world if she once let herself out."

We went again to the Grange Encampment and joyfully greeted old friends who had done much to make our summer sojourn pleasant. The huge building was rather breezy for October, and would have been chilling if everybody had not been so jolly. The same pretty girls still waited upon the tables—at least we found "our girls" and a warm welcome came smiling along with cups of coffee and platters of steak. We were glad to learn that they are making a financial success.

How Do You Do?

[Written for the PRESS by N. J. M. S.]

I wonder if "to cultivate the soil and the mind," means to acquire and cultivate acquaintance? If it does, then across hill and plain, o'er mountain and desert I reach you my hand and say "Very well, I thank you; I'm very happy to meet you;" in this day of lightning expresses and telegraphs, it don't seem such a long stretch after all, especially when one has a friend who remembers them once a week *sure*, and gives positive proof of the same by sending them a copy of the RURAL. I have just opened the last number, and as I hoped there would be, I find a letter from Mary Mountain (wonder if she is as large as her name,) from the Centennial. She says a friend tells her she had better write a book of Centennial gossip and experience; but my advice is to let the book remain unpublished, for I don't believe the poor human family ought to have anything done to make them gossip more than they do now.

Perhaps in California there is so much that is attractive in nature, and your people are so earnest in their lives, so taken up with reform, with the progress toward a higher tone of society and life morally and physically, that you've gone beyond your Eastern friends and have no time to indulge in the weakness of gossip. I sometimes think so when I read the letters in the RURAL. Who could associate gossip with Mrs. Carr, Mary Mountain, and above all, with Mrs. Nichols? By the way, I have always thought she was the Isntha Howard I used to hear about up among the Windham hills, in Londonderry, Andover and Townshend, in my childhood; and when you gave a sketch of her life in a back number of the RURAL, I was almost sure, though you omitted telling her maiden name. It makes me feel proud to know that my native State gave to the world so glorious a woman.

I don't know, but I can't think of anything but the Green mountain breezes that can give to Mary Mountain that brisk spiciness that runs through all her writings. I wonder how one feels, transplanted from the blustering, almost frigid cold of a Vermont winter to your beautiful climate? They must feel as though they were in Paradise, and I don't believe some are quite sure they're not in Heaven. To me, the difference is great, even here in the old Bay State, where it is cold enough for thick flannels the most of the year. We have been obliged to keep constant fires to sit by for four weeks; the leaves are falling fast; frost has killed all the flowers that have not been protected, and altogether a view outdoors is very dreary. One needs on overcoats, thick shawls and gloves to go out with any degree of comfort.

Speaking of dress reform, a sister said in last week's paper that she had a good dress pattern with but seven pieces, and thought she was the happiest woman in the universe. I am happier than that. I have one with but *five* pieces, and it takes but eight yards of calico to make it. I call that mastering hard times. But I *will* have my starched white collar for all the ruffle; it makes me look better, and I like to look well to myself.

I'll stop, for it isn't polite to take up all the time in the *first* conversation, and I wouldn't wonder if this kindled the editor's fire.

Westfield, Mass.

HORNED MEN IN AFRICA.—There was a paper read before the British Association, written by Capt. J. S. Hay, relating to a strange malformation in the males of a tribe of people he has visited in Akem, in West Africa. An extract is as follows: Two diagrams which are laid before you depict to the best of my ability, and will at least convey some idea of a malformation which is, I believe, peculiar to this tribe. I have at least noticed it in no other. The malformation in question is confined to the male sex, and consists of a protuberance or enlargement of the cheek bones under the eye, which take the form of horns on each side of the nose. The malformation begins in childhood, but is not, so far as I am aware, hereditary. It presents no appearance of being a diseased structure, nor is it a raised cicatrice, after the fashion adopted by many African tribes. On the contrary, I have seen children with this peculiarity of structure, whose parents were doing their utmost, though ineffectually, to stop it by medicines and applications. In the meantime, to set all speculation and conjectures at rest, and to corroborate a statement that doubtless may appear extraordinary, I have lost no time in writing to a missionary, a native of the country, to procure me, if possible, skulls in which the phenomenon appears; and as soon as these arrive it is my intention to exhibit them, in connection with a paper on the subject, which I propose to read at the Anthropological Institute in London.

A Royal Funeral in Egypt.

The Khedive of Egypt recently buried his favorite daughter, Princess Hanem Zeinub, who was but 15 years old, and the wife of Ibrahim Pasha. She died of typhus fever—a likely cause considering the malarial character of the Nile regions in the warmer seasons of the year. The ceremonies attending the burial were certainly imposing, if a large concourse of Moslem priests and people, the scattering of money from a treasury which a few months since was declared bankrupt and deeply in debt, and the butchery of oxen, followed by a big exhibition of gormandizing, suffice for the creation of an impression. The Cologne *Gazette* thus describes the demonstration:

"The Khedive and his family, as well as his guest, the Sultan of Zanzibar, and the whole city of Alexandria, were much disturbed by the sad event, and the theater was closed for three days. The body was taken to Cairo the same day, and placed in the Kasrel-Nile palace. An immense concourse followed the body to the depot in Alexandria, and hundreds of thousands of *tire* were distributed among the poor people. The interment took place in the Rilah mosque on the following morning. Twenty-four bullocks, 30 camels, and 20 wagons were in the funeral procession. These animals were laden with bread, dates, cooked meats and vegetables; the wagons carried casks of water and syrup, and all along the route distribution of the provisions was made to the poor. Eunuchs, meantime, threw 450,000 pieces of silver coin to the people who thronged the street. Three thousand priests, some clad in rich vestments of gold and silk, others half naked, followed the wagons repeating prayers as they marched, and clapping their hands. After them came the family of the poor young Princess and the high officials of State, and then the coffin, borne by officers of rank. Behind this walked three eunuchs, bearing on golden shovels copies of the Koran, to be buried with the deceased. The coffin was of simple rough hewn wood, and the corpse was sewn up in linen cloth. Upon the coffin were placed the jewels of the Princess, worth $1,500,000. After the burial the priests slaughtered the 24 bullocks before the mosque, roasted them, and ate them up. The priests remained in the neighborhood of the grave to pray for the soul of the departed. The Khedive was so overcome with grief that he could not receive any visits of condolence."

Contrast this with a funeral of Christian civilization, and even the expensiveness of its furnishing by the fashionable undertaker seems chaste and far more appropriate.

Home Studies.

The society to promote studies at home is now three years old, and its short life is full of good works. Its object is to encourage young women to devote a part of every day to systematic and thorough study; and its method is the arrangement of courses of reading and study, with proper directions and advice, and the yearly distribution of certificates of progress from the examiners and managers. Student members must be at least 17 years old, they must pay $2 annually for printing, postage, etc., and they are expected to try honestly to devote a certain time to their work. It is thus a purely voluntary association, and implies a sincere interest in the object. Indeed, there is no conceivable reason why any one who does not wish to share the advantages of the society should trouble herself to join it, as there is no collateral benefit except that which springs from hearty co-operation. Whoever wishes to join as a student can procure a programme of studies from Miss Ticknor, 9 Park street, Boston; and having selected a course of study, she receives special directions. The term of study and correspondence is from October 1st to June 1st. In June a wholly optional written examination takes place in Boston, and students are invited to send essays in English, French or German on subjects of their own choice.

This, as Mr. Higginson truly says, is merely organized aid given by the elder and more experienced to the younger and inexperienced. The results are very gratifying. During the first year there were 45 student members; during the second, 82; and during the last year there were 298, living in 162 places, in 28 States and Canada, and as far as Florida and Louisiana. Of this number, 67 per cent., or 204 students, have done satisfactorily. The average time of study has been eight hours weekly; the largest time, about five hours daily; and the smallest, two hours weekly. The studies have been history, English literature, science, art, German and French. The committee now includes members from Maine, New York and New Jersey as well as from Massachusetts, and as the good work goes on there will undoubtedly be other chief local centers. The object is very simple. It is mainly judicious council for those who really desire it, and a more sensible and useful society for the purpose we do not know.—*Harper's Magazine.*

Hoodlumism and Drink.

It is a well known rule among the Chinese that there shall be but one wash-house in a block. If the same rule could be established among the Christians with regard to the disposition of drinking houses, or rum holes, as they are expressly termed among their patrons, a very direct blow at hoodlumism would be struck. If idleness be the root of hoodlumism, as people are generally willing to believe, it is sustained and nourished by the sale of cheap liquors. The numbers, given by the statisticians, of the places devoted to liquor traffic, are perfectly appalling; but a walk through the outer edges of the city will convince the skeptical of their truth. There is no more familiar sign decking our streets than the foaming glass of beer, with the alluring words underneath, "five cents a glass." These cheap cellars and shops, where alcoholic liquors are sold at correspondingly low rates, are the favorite lounging places of idlers and the scenes of innumerable brawls. It is impossible for the law to get at the root of the matter by breaking up the patronage. It is not easy to restrain any person or class of persons from visiting these places. In any case such a law would be a dead letter, with a body of police who are afraid to interfere with hoodlums in the open street, to say nothing of stemming the lawlessness of a crowd of striplings inflamed with liquor. It is with the dispensers of liquor that the law will be obliged to deal. It will be easy enough to limit the number of places within a certain area at which liquor may be sold, since its sale is one of the necessary evils, and, if the law be rigidly adhered to, even so simple a movement will have its weight in decreasing hoodlumism. In addition to this, the consent of a majority of the neighborhood should be obtained for the establishment of a saloon, since it is a nuisance, in that it not only disturbs the people, but deteriorates the value of property. Also, the keeper of a saloon should be a man of attested good character. Such a one would have some care about the class of habitues whom he permitted to trade at his counter. It would be a still greater improvement if a brawl, or a specified number of brawls, would insure the immediate closing up of the saloon where they occurred. If the hoodlum were met at the threshold with a warning, if he had no comfortable place in which to lounge, to brew mischief and to stupefy himself with cheap drams, he would be driven to work despite himself and his idle habits for sheer necessity of passing the time. Another evil resulting from the same cause is the ease with which young children learn to drink. More than once the police have come upon a den of young hoodlums, either under some accommodating house, or in a vacant lot, where the entire gang were stupefied with beer procured for a trifle at some adjoining groggery. The oldest of the crowd in such cases is rarely more than 14 or 15 years sold. The man who will sell liquor to such children sadly needs the pressure of the law. It will certainly be necessary to put it in effect somewhere in the liquor business, or hoodlumism will shortly be beyond control.—*San Francisco Alta.*

Labor and Prosperity.

The uncertainty of wealth is proverbial—the descendants of the rich of one generation being the poor of the next. The cause is too often apparent in the enervation, want of economy, enterprise and forethought, in the inheritors of wealth, when compared with their less fortunate neighbors. Has it ever suggested itself to you how sure is the reward of honest toil when properly directed? The wealthy rising men of to-day, as a body, are almost without exception self-made. The secret of their success, sought after by many, is as plain as a noonday's sun. They do not float unresistingly with the stream of humanity, but in their separate callings struggle hard against the stream. When times are hard they are not seen on the street corners complaining of their lot; but reading the future by the unerring light of the past, know that the dark clouds on the horizon but foretell the coming sunshine. Their little savings are scrupulously cared for and judiciously invested, while the croaker comforts himself with dismal prophecies—and the result is an abundant and golden harvest. Such an occasion is the present. For three years enterprise has been paralyzed, and the most dismal prophecies have been apparently well nigh realized; but the busy marts of commerce, now deserted, shall be thronged again; the cheerful buzz of the factory, now dismal in its quietude, shall resound with honest industry. Then what will be the result? The dollar judiciously invested shall be doubled and trebled; and the poor man, unknown and unheard of, who takes stock in the prosperity of his town and nation, shall be extolled and honored. To all we say: Keep not your means idle, pay your debts, take advantage of the profitable investment now offered, whether it be in houses, lands or business enterprises, and our word for it you will not regret it. The cry of over-production is a farce and delusion. There is room enough in this broad land of ours for every honest son of toil. Hard work faithfully followed will bring success every time. The more discouraging the times of to-day, the greater the revival when it comes and the sooner it will arrive.—*American Manufacturer.*

"My bark is on the sea," as the cur said when the captain threw him overboard.



Quartz on the Brain.

Young Folks' Column.

The Farmer Boy's Soliloquy.

[Written for the Rural Press by E. J.]

What a weary, tired boy am I—
My task is never done;
How hard to have one's sleepy eyes
So dazzled by the sun.

How hard to have to get the cows,
Those two old foolish things.
That have to be got up and milked
Before the meal bell rings.

And then be scolded, too, besides,
Because the poor calves bawled;
And, just to stop their cry for milk,
I let them take most all.

How wrong to say that children's lives
Are happiness and joy,
When cruel woodpiles persecute
A little weary boy.

And should a tired boy lie down
To get a little sleep,
To wake and hear them halloaing:
"That boy's asleep again;
Oh! Willie, Willie, mind your sheep,
They're going on the grain."

Yes, twice a year, at shearing time,
To have to mind the sheep;
Without a speck of time to nip
Old Billy Buckeye's fleece.

Well! Well! Some day 'twill be my turn,
Then won't I make folks work!
If I have boys, I'll go for them,
If they attempt to shirk.

And if they say the day is cold,
Or that the day is hot,
I'll tell them that I sang that song
And I'll tell them what I got.

Oh! yes, I'll tell them how I went
At everything on hand,
And never flinched from any work
That I had strength to stand.

How pleasant 'twas to mind the sheep,
To milk the pretty cows;
I'll talk just like they talk to me;
I'll be even with this crowd.

Mary Newton at Hell Gate Explosion.

The black tug touched the little dock and after some bustle and ado a lady emerged from the cabin, escorted by Lieutenant Willard and followed by a nurse, carrying a sweet-faced, blue-eyed child. They hurried across the narrow gangway and stepped into the shanty, the original tenants making way for them by scrambling up the slope on the wet grass.

The babe seemed to inspire awe and wonder among the gazers. As they started Lieutenant Willard whispered to the man at his side. The listener wheeled instantly toward his next neighbor and whispered in turn, and that electric message flashing through the crowd exploded the mine of curiosity in a burst of surprise:

"The baby is going to fire the mine!"

The boom of the second gun came across the water, giving notice that but 10 minutes remained to complete the work. General Newton, lifting the blue-eyed baby to the table, said: "Do you know what you are going to do, Mary?"

The child, timid and confused, made no reply. Her nurse motioned toward the instrument and the chubby hand reached out to touch the key. The wires were detached and she was suffered to play with the clinking toy for a moment. The toy was removed for an instant and the wires replaced.

Boom! broke the report of the third signal gun upon the air. The moment had arrived. Every member of the little group held their breath as Lieutenant Willard, running out upon the pier, waved a handkerchief for the last signal to Colonel Abbott and then sprang back inside the hut. The chubby fist of the baby girl was stretched toward the key amid a silence like that of death. An instant of terrible suspense—two—three; the child had withdrawn her arm in fright at the general hush and looked inquiringly at her father. "Now Mary!" he said, and, seizing the tiny hand, he drew it toward the key. Click!

And simultaneously with that click, the earth quivered an instant, while a grand crown of water, boiling white at the crest, rose majestically from the mine, while a thunder-clap smote the air. Another convolution, with jets rising here and there out of the crest—the black mud at the bottom showing now, with masses of rock and timber struggling amid the chaos. Then a second report, duller than the first, rumbled along the water. Only an instant of this. The next second and the mass had tumbled foaming to its place, sending a wave circling into the river, and the climax had passed. The baby had fired the mine.—*New York World.*

Good Health.

American Physique.

I was talking the other day with a New York physician, long retired from practice, who, after an absence of a dozen years in Europe, has returned within a year to this country. He volunteered the remark that nothing had so impressed him, since his return, as the improved health of Americans. He said that his wife had been equally struck with it, and that they had noticed it especially among the inhabitants of cities, among the more cultivated classes, and in particular among women.

It so happened that within 24 hours almost precisely the same remark was made to me by another gentleman of unusually cosmopolitan experience and past middle age. He further fortified himself by a similar assertion made him by Charles Dickens, in comparing his second visit to this country with his first. In answer to an inquiry as to what points of difference had most impressed him, Dickens said: "Your people, especially the women, look better fed than formerly."

It is possible that in all these cases the witnesses may have been led to exaggerate the original evil, while thinking it over, and so may have felt some undue reaction on their arrival. One of my informants went so far as to say that he was confident that among his circle of friends in Boston and in London a dinner party of half a dozen Americans would outweigh an equally large English party. Granting this to be too hold a statement and granting the unscientific nature of all these statements, they still indicate a probability of their own truth until refuted by facts or balanced by similar impressions on the other side. They are further corroborated by the surprise expressed by Huxley and some other recent Englishmen at finding us a race more substantial than they had supposed.

My own impression has long been that nature is endeavoring to take a new departure in the American, and to produce a race more finely organized, more sensitive, more pliable, and of more nervous energy; that this change of type involves some risk to health in the process, but promises greater results when the new type should be established. I am confident that there has been within the last 20 years a great improvement in the physical habits of the more cultivated classes, at least, in this country—better food, better air, better habits as to bathing and exercise. The great increase of athletic games; the greatly increased proportion of seaside and mountain life in summer; the thicker shoes and boots of women and little girls, permitting them to go out more freely in all weathers—these are among the permanent gains. The increased habit of dining late and of taking only a lunch at noon is of itself an enormous gain to the professional and mercantile classes, because it secures time for eating and for digestion. Even the furnaces in houses, which seemed at first so destructive to the very breath of life, turn out to have given a new lease to it; and open fires are being rapidly reintroduced, as a provision for enjoyment and health, after the main body of the house has been tempered by the furnace. There has been, furthermore, a decided improvement in the bread of the community and a very general introduction of other farinaceous food. All this has happened within my own memory, and gives *a priori* probability to the alleged improvement in physique within 20 years.

And, if these reasonings are still insufficient on the one side, it must be remembered that the facts of the census are almost equally inadequate when quoted on the other. If, for instance, all the young people of a New Hampshire village take a fancy to remove to Wisconsin, it does not show that the race is dying out because their children swell the birth-rate of Wisconsin, instead of New York. If in a given city the births among the foreign-born population are twice as many in proportion as among the American, we have not the whole story until we learn whether the deaths are not twice as many also. If so, the inference is that the same recklessness brought the children into the world and sent them out of it, and no physiological inference whatever can be drawn. It was clearly established by the medical commission of the Boston Board of Health, a year or two ago, that "the general mortality of the foreign element is much greater than that of the native element of our population." "This is found to be the case," they add, "throughout the United States, as well as in Boston."

It seems to me that all our present physiological tendencies are rather favorable than otherwise, and that the transplantation of the English race seems now likely to end in no deterioration, but in a type more high-bred, more finely organized, and also more comprehensive and cosmopolitan. All this without loss of health, of longevity, or of physical size and weight. And, if this is to hold true, it must be true not only of men, but of women.—*T. W. Higginson, in the Woman's Journal.*

Many persons think melons very unwholesome, but there is really no more wholsome fruit. If eaten fresh and fully ripe, they make a most agreeable addition to the breakfast and dinner table.

Domestic Economy.

How to Use Quinces.

Stewed Quinces.—Pare and place the skins over the fire in a porcelain-lined stew-pan, and let them cook half an hour; then separate the clusters of seeds, cover them with eight or ten times their bulk of warm water, and let them steep on the stove, but not cook. Cut the fruit into quarters, or, if large, into eighths; cover them with water in a porcelain lined kettle, and stew gently until you can thrust a straw through them; then strain off the liquid from the skins, and as much as will readily flow from the seeds. Dissolve in this sufficient sugar to sweeten the whole, and pour it over the stewed quinces; boil up once and set away to cool. If pear quinces are treated in this way they will not be so likely to harden as when the sugar is cooked with them.

Pears and Quinces.—Prepare the quinces as above and add to them, as soon as they commence cooking, an equal quantity of pears, more or less, according to the flavor of each. The pears should be pared, cored, and cut to harmonize with the quinces. If the pears are sweet and in large proportion, less sugar will be required. Add the juices of the skins and seeds, as above, and serve cold.

Apples and Quinces.—In stewing these together the quinces will usually require to stew the longer. The proportions may be guided entirely by taste. A small proportion of quince will often flavor several times its quantity of apple, and if the apples are sweet no sugar at all may be needed. If it be desired that the pieces of apple remain whole, they must be stewed very gently and removed from the fire as soon as done.

Marmalade.—This may be made with the quinces alone or with quince and apple. Equal parts of the latter will be sufficiently highly flavored for ordinary use. Prepare the quinces first, and while the apples are in preparation, stew the quince-skins and steep the seeds according to directions already given. When this juice is ready put the quinces to stew in it, and when they are half done add the apples and water enough to prevent their burning. Cover close and stew gently, and when very well done remove from the fire, and stir with a wooden spoon or mash with a pestle, and strain through a colander. The softer portions clinging to the skins may also be rubbed through the colander and added to it. If the apples are not sufficiently sweet, sugar should be added just before the fruit is removed from the fire and scalded in. A smaller proportion of quinces will add a very agreeable flavor to an apple marmalade.

Quince Pudding Sauce.—Stew the skins of quinces and steep the seeds in the same water. Drain off the water until the mucilage appears to be all dissolved. This will require six or eight hours unless much time is spent in rubbing and working them. Make a little thicker than is required for the sauce; then add the juice of stewed quinces sufficient to flavor to the taste; add sugar also to the taste. Boil up once and serve. This may be canned for future use, and so may all the preceding preparations.

Quince Trifle.—Take thin slices of Graham bread, or new (not warm) gems; soak them in the pudding sauce, as prepared above, until soft; spread each piece with the marmalade and then pile them up in a glass dish. Smooth this over with the marmalade, and just before serving strew it over with strips of blanched almonds, or better still, frost it with finely-ground dessicated cocoanut, evenly or in fancy figures.

Quince Tarts.—Make a crust with "A" oatmeal, wet with one part water to three oatmeal and bake in patty-paus; fill with marmalade and sprinkle over or ornament with ground dessicated cocoanut. Another mode is to split open fresh gems, take out a little of the inside if desired, fill them or heap them up with marmalade, and sprinkle over with the dessicated cocoanut.

Baked Quinces.—Stew them as for quinces alone. When they are tender place them in a nappy, cover them with the juice, season them to the taste, cover them with a plate, and let them stand in a moderate oven and bake gently two hours.

Absorptive Power of Milk.—Attention has been called in the daily papers to a practice prevalent in some parts of the country, which appears to illustrate the power possessed by milk of absorbing atmospheric impurities. It is that of placing a saucer of new milk in a larder to preserve meat or game from taint. It is said that not only does it answer that purpose, but that the milk, after a few hours, becomes so bad that no animal will touch it.—*London Lancet.*

[The lesson to be drawn from the above is that, under no consideration should the milk pans stand in the common place where meat, etc., are stored. This is too often the practice. Not only should the odors from the meat be guarded against, but those from vegetables are equally destructive to the purity of the milk.—Eds. Press.]

Tapioca Gruel.—Wash a tablespoonful of tapioca and soak it in a pint and a half of water 20 minutes; then boil gently, stirring frequently, till it is sufficiently cooked, and sweeten.

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SAN FRANCISCO

Saturday, November 4, 1876.

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The Week.

The State wakes. The week has brought rains more abundant than those the week before had chronicled. The round of the seasons has begun again. Now that the time of activity in nearly all lines of cultivating, planting and sowing is at hand, it may be well to pause a moment and think what a variety of action and enterprise is now discernible in our agriculture. Our columns from week to week are filled with the notes of the progress which is being achieved. Volumes have been written upon our climate, soil and productions, and yet no volume gives any adequate idea of our progressive agriculture and the triumphs it secures. A book on our agriculture, while on its way from the writer to the reader, becomes old. While the printer and binder are fastening the facts in the pages, the progress of the industry sweeps on, and there are new facts to record, before which the old become obscure. A man who would put our agriculture into a book would be forced to issue an edition a week, if he kept abreast of our agricultural advancement, and thus the book would become a newspaper.

Thus we work from week to week, seizing from all sources the new facts and triumphs of California agriculture. The work delights us. We do not tire of it. We prosecute it with enthusiasm. Our reward is ample in the encouragement and patronage we receive, and in the progress which all are making we plume our pen to better deeds.

ON FILE.—"Wayside Notes," F. H. McD.; "Description of Santa Cruz," O. N. W.; "Santa Rosa Items," J. B. A.

The Situation in Wheat.

The week closes another month of the wheat season, and the records of exports show that we have sent abroad more tons than in any former month since wheat began on this coast. The shipments for October were 2,059,524 centals, and the total exports since July 1st last were 5,285,481 centals. The shipments during the same months of last year were 2,846,375 centals, showing an increase this year thus far of 2,439,136 centals.

Thus we have bearing down upon the English and continental markets more wheat ships than ever before in our commercial history at this season of the year. As the rumors of war have come one by one during the last few weeks, there has been a rise in the prospective value of this floating property, and we have heard of large advances offered for floating cargoes above clearance valuation. This chance of war has overhung the trade during the last month especially, and has made firm holders of those who have not sold their crops. The latest news from the seat of trouble in the east is that Russia sent a peremptory demand to the Porte to grant an armistice within 48 hours, or Russia would call home her embassy, and the way would be paved for war. This (Wednesday) morning the indications are that Turkey will concede to the Russian demands and call back her dogs from the throat of the prostrate province. Thus there will be peace, for a time at least, and the question of a general war will be postponed if not effectually answered in the negative.

It is fortunate for shippers of California wheat that the matter of profit on their property does not depend altogether upon the realization of the expectations of war. Although war would inflate prices suddenly and probably increase the gold balance of this coast by about $2,000,000 on the amount of grain now afloat from this port, there is still a surety that our wheat will realize a moderate profit, because of the amount of breadstuffs which England and Europe will need, even though the year be peaceful. It is probable that this lack will not exert its force until the time draws near another harvest and the home crops and early importations are consumed, but it is quite certain to appreciate the value of wheat before the crop of 1877 can be brought upon the market.

We find in the London *Economist* some computations upon this subject, showing from the shortage of the wheat crop in most European countries that there must be a deficiency which the outside world must fill. It is shown that the English harvest is still reported of the character which we described in the PRESS of October 14th. The remarkable decrease of acreage in wheat, amounting to a cutting off of nearly one-fifth of the whole area in two years, and the unfavorable conditions which overhung the crop from seedtime to harvest, resulted in a considerable decrease from the average production of wheat. Of the wheat crop in other European countries we quote from the *Economist* as follows: "The French crop, which is so important to us, is perhaps over an average; but while this may prevent France competing with us in foreign markets, there is no likelihood of a surplus from that country to make good our own deficiency. And from most of the continental countries, including Russia, the accounts are not favorable. According to the reports at the international corn market in Vienna, on the 21st of last month, there is a deficiency of about 20 per cent. in the crops of the consuming countries of Europe, except Bavaria, Saxony and France, which are credited with a good average; but with only one exception, the producing countries or regions from which our supplies are drawn are all deficient, some of them greatly deficient. The most satisfactory feature in the list is the fact that the Austro-Hungarian empire is credited with nearly an average harvest, and the most important parts of Russia with 'better than a good average;' but there is evidently no excessive surplus with which to make good the probable inability of other districts to send us very much."

After thus finding little consolation in European crops to give the English people cheap bread this year, the *Economist* looks toward America, and especially towards California, to supply the English need. Crediting us with a large crop, it argues that we shall have enough to fill their markets and thus prevent a rise of price, which otherwise would be quick and certain. Still, in spite of the great quantity it credits us with, the *Economist* looks for an important improvement in price before another harvest can be gathered in.

This, in general, is the present situation of the wheat market. In some respects we hold the key to the situation, and we are sure of a market abroad which will be eager for our surplus, if it is put on sale about as rapidly as consumption calls for it. The prospect is also in favor of a thorough clearance of the world's stock of wheat before another harvest will come into our hands for sale. This the outlook is favorable.

THE Health Officer reports that the smallpox epidemic in this city is dying out. The disease now attacks only those who are brought into direct contact with it, and the circle of contagion is becoming daily smaller and smaller. The total number of cases reported up to the present has been 1,010, and the total number of deaths 284.

Work and Weather.

We are fairly in for another season. The early rains have been copious beyond the measure of other years. The testimony of the rain-gauge at several different points puts a measure upon the weeping of the skies as follows: San Francisco, for the season thus far, 3.76 inches; Sacramento, 3.01 inches; Santa Rosa, 6.5 inches to Oct. 27th; Napa, 8.42 inches to Oct. 28th. In the southern counties there was also a visitation of rain which will doubtless open the season, but the measurements are not yet at hand.

It is quite an important matter to know the probabilities of the coming season as foretold by these early and heavy October rains. We have heard the opinion expressed at least a score of times, that early rains would be followed by a deficient rain-fall, and yet the examination of the S. F. rain tables indicates that the opposite is true. In 1849-50 the October downpour was 3 inches, and the season's total, 33 inches; 1858-9, October, 2¾ inches, season, 22 inches; 1874-5, October, 2¾ inches, season, 18 inches. Of course there is no fixed rule by which such a salutary sequence can be determined, but there seems no reason to anticipate a lack where in former years, under similar conditions, there has been plenty.

Intimately connected with the condition of the weather in this State, is the subject of work. The early rains ensure us a long season for cultivation and growth, and if continuing conditions be true to the beginning, there is reason to expect thorough and satisfactory deeds in the fields during the coming year. The rains cut short the time for idle waiting, and give the farmer full opportunity to put into practice any ideas of reform in culture which he may think would profit him. Early and thorough plowing fosters early and ample growth in the grain fields, and early strong growth gives the plant a possession of the soil which later unfavorable conditions are unlikely to prevail against. Although there may be conditions in certain localities which require special treatment, still as a general rule our observation has been demonstrated to be true.

A long plowing season will give an opportunity for a considerable increase of acreage under seed and cultivation. We hear already of a disposition to extend operations in this way. In our grain counties some of our largest farmers are setting aside broader areas for the plow. The prospect is that if work be actively begun there will be abundant time to turn many unproductive spaces to account.

There will be ample time for improvement of the farm both in directions of use and comfort. While the regular labor is in progress in the fields, there may be a gratifying industry manifested around the farm house. There will be time to beautify and to adorn. There will be time also to improve productive capacities. The lines may be drawn for irrigation works. Trees may be set for shelter, shade or ornament.

It may be fairly expected that the year which begins with last week's rains will be one of activity and be memorable in our agricultural annals as a time of enthusiastic and successful effort for advancement and progress.

The Chance in Olive Oil.

We have formerly noted the fact that the California made olive oil is an excellent product, and pleases consumers. It has been largely introduced in the hotels and restaurants of this city. Owing to the penchant for the imported product, our California oil bears a French brand even in the house of its friends. This is to be regretted, because while we are sailing under a foreign flag we are doing nothing in the way of establishing a standard of our own. We can see no reason why a distinctive California brand cannot be established, and finally made to secure the position in the markets of the world to which the quality of the article entitles it.

This point is suggested by the disclosures which are being made of the wretched adulterations which are being introduced in the commercial article of olive oil. We read in the *Chemist and Druggist* that "some of the cheaper fixed oils found in the New York market are largely substituted for olive oil. Very little of that which is sold by grocers is even imported from Europe. A New York merchant who is extensively engaged in bottling this article in imitation of the imported style, informed us that for the cheapest grade he is in the habit of putting up refined cottonseed oil, and for a somewhat better brand the oil of benne. The expressed oil of mustard, a by-product in the manufacture of table mustard, is also applied to the same purpose. Our French friend, whom we have before alluded to, also kindly informed us that in his country the ground nut oil (*Arachis hypogœa*) is used to an enormous extent for admixture with olive oil, so that but very little of the latter is exported strictly pure."

Here is the chance for a pure California product to sell on its own name and establish a fame which will be for a time at least free from the frauds of the adulterster. Not only are the French brands used to cover the compounds produced in New York city, but even in France, in olive oil, as in wine, the most detestable frauds are perpetrated. We think there is now opportunity for our olive growers to show their true colors, and by a pure product win the demand for their product.

The Dairymen's Association—No. 4.

Discussion on Dairy Stock.

Our last portion of the proceedings of the dairymen's association contained Mr. Ashburner's introduction of the subject of breeding dairy stock. We shall at this time give our notes of the remarks made upon the subject by other members of the society.

H. Y. Stanley, of San Luis Obispo county, in answer to a call, said that he had no experience with thoroughbred Short Horns; his cows were of the common stock. A matter of much importance was the improvement of this stock by the introduction of the better blood. For his section he thought something of lighter weight than the Short Horn would be preferable. He had thought that the Ayrshires or Jerseys would serve them better to cross upon the best of their common stock, but whether these or the Short Horn would be best he would like to know. He had noticed that the lighter cattle keep in better condition when they have rather rough land to roam over.

Mr. I. C. Steele, of San Mateo, gave his experience in breeding dairy stock. When dairying in Marin county he had tried the Durham. The land is rolling and found they decreased in size; when he moved these cattle to San Luis Obispo county on land that was more level the cattle increased both in size and in yield of milk. He noted the fact that there are families of Short Horns which have been bred especially for beef, and to use bulls of this strain on milk cows injures the milking qualities of the offspring. He had tried the Short Horns of the milking strains and found they improved the milking capacity of his herd. On their San Luis Obispo property the Steele Brothers had cows which gave over eight gallons of milk per day, and still were so fat that their buttocks would shake as they walked.

Mr. Steele gave advice on breeding dairy stock as follows: First determine where you are going to dairy. If it is on hills, take the medium or small size cows; they will make more milk or beef than the large under such conditions. If you put heavy Short Horns on rough lands they will grow smaller. One set of circumstances does not cover all the conditions in the dairy business by any means. First, then, select your location. Then decide whether you are going into butter or cheese, because some cattle are better for one than the other. Milk may be rich in butter or in casein.

In buying cows for the dairy it must be remembered that it takes a cow some time to become acclimated and do her best after a change of location. He had found that in bringing cows from the interior to the coast there will be two or three years required to bring them up to the climate of the coast. Some years ago he moved five cows from the Sonoma valley to Point Reyes. The first and second years they were not good, but the third year they were the best cows in the dairy.

Most dairymen make a mistake in keeping their cows on too long. It will be found more profitable to turn them off before their milk fails and put on fresh stock.

At the second days' meeting of the association, Mr. A. Mailliard, of Marin, gave a very interesting address on the dairy qualities of the Jersey cow. It was delivered without manuscript, and we regret that we are thus unable to print it. Mr. Mailliard noted the origin of the breed, and how for generations they have been bred on the Channel islands for the one aim and end of producing rich milk. This long breeding for one purpose has developed their ability to produce milk with a very large per cent. of cream, and entitles them to their distinctive fame as butter cows. For the production of milk for the market they would not be profitable, because the milk is too rich according to the measure. In the Philadelphia milk trade there are some contributing dairies of Jersey cows. By the ordinance of the city the milk sold has to show a certain percentage of cream. This Jersey milk had to be watered 30 per cent. to bring it down to the standard prescribed by the city, unless the dairyman wished to sell richer milk than necessary, which was not the case. In his experience he had found that his Jersey cows gave him one-third more butter from five-eighths of the feed required by other stock. He had one cow which gave one pound of butter from 10 pounds of milk, and the average of his thoroughbreds was one pound of butter from 12 to 14 pounds of milk. The cross of the Jersey on the other breeds was also found very profitable in butter. He had crossed the Jersey on Ayrshire, Durham and Devon cows and found that each cross improved the milk for butter. His half breeds in Marin county give him one pound of butter from 18 pounds of milk, while the average yield of common stock is one pound of butter from 28 pounds of milk.

Mr. Mailliard noted the marked success which was attained at the East with Jerseys as butter cows, and as an instance of what the breed can do, he cited a record of one cow which produced 574 pounds of butter in one year, and that on five-eighths of the average amount of feed consumed by other cows. Many questions were asked the speaker by those present, and ready answers were returned. The session was very interesting.

We expect next week to take up the subject of butter making as it came before the association.

Steam Plowing.

Upon the face of the matter, it would appear that in a country where the furrows can be traced from dawn till noon without a turning, there would be an adsptation for steam cultivation if snywhere upon the world. And yet the thing is not a fact accomplished. It is, however, well worthy of consideration, and any suggestion which may in any way simplify the problem and reduce any of the obstacles, is interesting. We have to present our readers this week an article written for us on the subject by Mr. J. W. Riley, who is a practical steam thresher and whose investigations in the line he describes have been undertaken with a view of ascertaining facts for his owu guidance. His argumeut is in the direction of turning to use, for steam cultivation, the machinery which lies idle from the end of one hsrvest until the beginniug of another. Mr. Riley writes as follows:

All efforts made in this State to plow by steam have been to pnll the plows by traction engines, and, with perhaps one exception, all have proved failu res on account of the cost of fuel, wear and tear and so much of the power of the engine being required to move itself over soft gronnd. Stesm plowing is successful in Englaud. Their method is to nse traction engines, balance plows, steel wire rope and windlasses. The engines always remain stationary when pulling the plows. By this system, two traction engines with a winding drum to each, working along opposite hesdlauds, are nsed to draw a plow, cultivator or other implement from one engine to the other, alternately. The engines are, say, 800 yards apart, and one engiue moves the width of plows and pays out the rope while the opposite eng ne draws the plow, and vice versa. There is used in this operation a double set of plows, and being reversed ou one frame it avoids any turniug. The set not in use rides clear of the gronnd at an angle of 30 degrees. Cultivators, harrows and other implemeuts are made on the same principle, to avoid turning. Another plan is to use one traction engine and patent anchors. This requires a longer rope and takes more time to move.

In our engraving, Fig. 1 shows a new style of "steam plowing and traction engine," suitable for plowing, threshing and other farm work. This engine is ahont the same size as our largest threshing engines, bnt heavier, on accouut of the traction gear and winding drum in the rear. This drum cau easily be removed when plowing is done. This engine could be nsed for hauling the threshing machine and derrick wagon, doing away with six horses. By putting another pulley on the shaft of the engine, it would do the work of horses, hoisting straw with the derrick forks by means of another belt and small wooden winding drums on the derrick wagon. This attachment has been in nse this season, run by straw burning engines, saving the lsbor of one man.

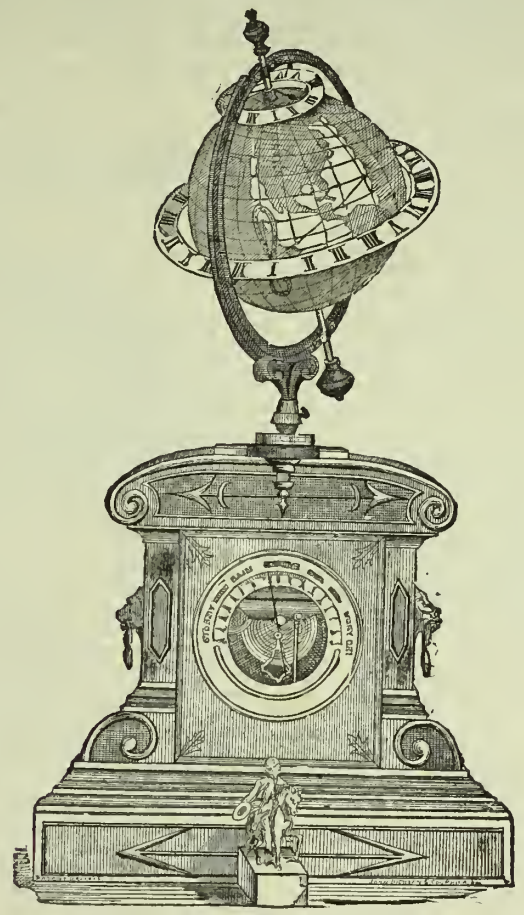
Fig. 2 is an ordinary portable threshing engine with windlass attsched to the rear by one bolt. This is an important improvement in steam cultivating apparatus, which renders the ordinary portable threshing engine available for steam plowing. Oue of these improvements is, that the weight of the engine is used as an auchorage, both for the windlass and the pulleys which lead off the ropes. The engine aud windlass, although detached for couvenience of removing from field to field, are connected when at work by a single bolt. The engineer has theretore perfect control, both of engine and windlass, and is in a favorable position for overlooking the plow as it proceeds.

How These Machines Could be Applied to our Work.

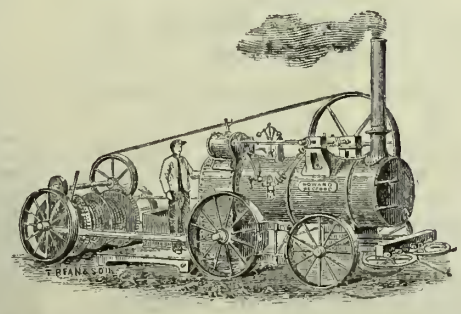
Our farmers in the State of California have for the threshing seasou of 1876 invested upward of $175,000 iu straw burning engines. The threshing is now over, and all these engines are standing idle until Juue, 1877, when threshing commences again. Why not use these engines for steam plowing? It can be done cheaper than by horse-power, and the cost of additional machinery to do this would be light. Until the two past sessons fuel has been quite an object in threshing, as every farmer knows from having paid from $4 to $10 a cord for wood for threshing; and coal in islands about the Sacramento and San Joaquin rivers, though only 10 to 20 miles from Mount Diablo mines, costing $9 per tou on the wharf aud $1 more to get it to the engine in the field, and poor steam coal at that. Any farmer having a straw burning engine can run it for plowing at a cost of the man's wages and board, to fire, say $30 per month. The straw costs uothing and is often burned to get it out of the way. The machinery required to plow with single engine wonld be one windlass, two patent anchors, one plow and steel wire rope and two pulleys attached to the fore part of the engine, as shown in cnt No. 2. The price of windlass is about $350; self-moviug anohors, $250 each, with 100 yards of steel wire rope for headland; steel wire rope one and three-fourth inches in circumference costing $24 per 100 ysrds.

Iu plowiug with one engiue and the two anchors, the position of the engiue and anchors forms a triangle, with the engine at the apex and the plow moving back aud forth on the base line.

Two farmers owning engines could work together by the purchase of two windlasses and one plow with wire rope, the engines taking the place of anchors; and one-third the length of the rope will do when using two engines. Messrs. J. & F. Howard, Britannia iron works, Bedford, England, are the manufacturers of these engines and steam cultivating machinery in general. We think Messrs. Howard would do well to send out a set of their mschinery to California, especially the portion adapted to attach to our straw burning engines, in order that the adaptability of the implements to our use could be determined by experiment.



JUVET'S TIME GLOBE.



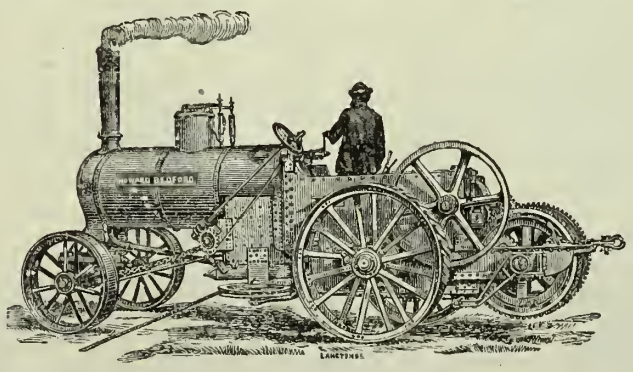


Fig. 2. HOWARD'S PLOWING AND THRESHING ENGINES. Fig. 1.

The Power of Beauty in Agriculture.—The power exerted by our fair sisters in the advancement of agriculture is a fit theme for an orator. At the recent Monterey fair the opening address was delivered by Hon. C. S. Abbott, and in contrasting the old condition of agriculture in this country with the new, he gave voice to this inspiring sentiment: "Look around you to-day and see the fine bred cattle, horses, sheep and hogs; the products of the farm, dairy, orchard and vineyard; look at the display of farmiug implements and machinery of every kind. Ladies and gentlemen, behold the contrast, and ask yourselves to what it is to he attributed. You will only have to look into one another's faces to read the answer. Intelligence, industry, pluck, genuine Yankee goaheaditiveness, together with the indomitable will of the male portion of our population, stimulated to exertion by the retiring modesty and radiant beauty of the fair sex of Monterey, is enough to make us plow the mountains down and drain the rivers dry. 'Tis enough to make every young farmer swear to plow the longest, the straightest and the deepest furrows; to breed the finest stock, to raise the sweetest grapes and make the purest wine."

The Rural Press in Monterey County.—The Salinas *Index* of Oct. 27th says: Mr. C. M. West is here writing up matters and things in connection with our fair for the San Francisco Rural Press. He also intends, before long, to make a thorough canvass of onr county, soliciting subscriptions and taking notes of our resources, etc., as a bssis for future articles for his paper. The Press is a splendid journal, and well worthy the patronage of our farmers and others interested in agriculture.

A Remarkable Timepiece.

Among the exhibits of various timepieces at the Centennial—which may be numbered by thonssnds, and from all parts of the world—there is none of more iuterest than the time globe, invented by L. P. Juvet, of Glen Falls, New York, and shown on this page. This marvel of mechanical skill shows the time on all qnarters of the globe.

The invention has been patented and is thus described by the *Jeweler*: It consists of a globe properly sustained, as shown by the engraving herewith. On this globe, whtch can he made of any proportionate size desired, is a complete map of the world. A large dial encircles the globe at it's eqnator, at which the time of the varions meridians is indicated. At the uorth pole is a smaller dial which shows the mean time at the place where the globe is located. The remarkable feature of this inveution is the fact that by the mechanism inside of it this miniature globe actually revolves, as does the earth, once in every 24 hours. The actual time at any part of the world can be easily and quickly ascertained by reference to the large dial encircling the globe at the equator. It has a sliding Veruier, divided into 360 degrees, by meaus of which the latitude of localities can be ascertained, or the proper degree of inclination of our own or any other heavenly body illustrated. By setting the globe at the proper angle of inclination, giving the poles the proper direction north and south, and letting light, properly applied, fall upon it, it will give not only the amount of light or darkness each country has, but the very time at which it has it. The clock therefore gives the time, longitude, and latitude of any place in the world, as welt as the difference of the same between two or more places.

The time globe is attractive in appearance and would adorn any place in which a timepiece is desirable. It stands in any position, and is a stem winder. Other instruments for noting the changes of the weather, etc., can be added to the case which sustains the globe.

H. W. Seale's Stock Sale.—The sale of horses and cattle by H. W. Seale, at his farm in Mayfield, Santa Clara county, was largely attended. The aggregate receipts from the sale were about $15,000. The highest prices for horses were made by the mare Black Swan, $1,900; by a five-year-old sorrel matched team, whioh brought $1,075; and a six-year-old trotting gelding, $1,050. The cattle sold low. Crego & Bowley conducted the sale.

Fine Butter.

We have seen some bntter during the week which is so good that we haste to mske uote of it. We heard iudirectly that H. Corey, of Salinas, Monterey county, was doing something excellent in the dairy line, and we called at the store of Steele & Elder to see what the product was like. When we asked for some of Mr. Corey's butter, the salesman shook his head indefinitely. When we explained fnrther that we were of the Rural Press, and wished to exsmine, not to pnrchase, we were led to the rear of the store and found three or four boxes hidden away behind a row of barrels. "The fact is," the salesman said, "we have uone of Mr. Corey's hutter for sale; it is the light make now, and we have to keep it all for regular customers." As we opened the box we found the cloth drawn tightly scross the hox so that it is held tight hy the cover and the rolls are effectually sealed in from the dust. "That looks well," we thonght. Lifting the cloth we raised roll after roll, and found that the bottoms were as clean as the top, and uot a particle of dirt to be seen. To try the flavor of the bntter we attempted to take out a piece at the center of the bottom aud found that the cloth extended aud lapped completely over the bottom, so that the bottom was covered iu almost as tightly as the sides. Finally, raising the laps, we reached the butter, and found it fragraut, firm and rich colored. "This butter," said the salesman, "we sell always from two and one-half to five cents above the market price. Every box comes just in the shape you see this one, and we cannot get enough of it." We were gratified exceedingly at the quality of the butter, aud the art which was displayed in preparing it for the market. Mr. Corey is now sending to market 12 hoxes a week. He is about to increase his dairy very greatly and next year his production will be more thsu doubled. He has hit the secret of profitable dairying and will follow it up. If a man can make bntter that has to be hid away from customers for fear they will take it, he may be sure he is upon the right track We are sure Mr. Corey's dairy arrangements, eto., are as good as his butter, and we hope at some time to he able to write of his establishment from a personal inspection.

Germany as a Grain Buyer.

There are indications that Germany will become from year to year a heavier cnstomer iu the grain markets of the world. The Department of Agriculture says the growing insufficiency of grain crops to meet home consumption in Germany gives rise to much anxiety in Berlin. According to the Berliu Mercantile Report, the excess of grain imports over exports daring the past year were as follows: Wheat, 1,500,000 centners; rye, 11,000,000 centuers; barley, 2,133,000 ceutners; osts and corn, from 2,000,000 to 3,000,000 centners; totsl, 16,000,000 centners, or about 17,636,800 centals, valned at $27,370,000.

It is clsimed that the increase of acreage is uot in proportion to populatiun, and that eveu a more extensive cnlture will not meet the increased consumption. Cultivable land in Germany is already quite fully utilized, and agricultural production consequeutly limited in its iucrease. The area gsined by clearing and reolaiming land does not exceed what is appropriated to mannfacturing. Within the lsst few years railways have taken up several hundred thonsand acres.

The raising of grain is becoming less profitable from year to year, and farmers are turning their attention to sugar-beets, tobacoo, oleaginous plants, fruits, eto. Increase in stock-raising uecessitates a more exteusive cultnre of forage plsnts. It is said that the area of profitable cnltivation has actually decreased, while the cost of labor has advanced.

Thus in the aggregate condition of the world the needs arise to meet the sources of snpply. The increase of grain growing in the east may but balance the lack in central Europe, and still America may find room for her surplus.

A severe cyclone passed over the Central American States on the 3d and 4th ult. The town of Mangra, Nicaragua, was inundated on the 4th. About 400 honses were blown down. The inhabitants had to climb on top of the houses to prevent being washed away by the flood. Many were drowned by honses falling. The total damage done is estimated at $2,000,000 The loss ou the coffee crop is estimated at $3,000,000. About 20 lives were lost and the whole district completely flooded.

A frightful accident occurred at the Royal Chinese theater on Jackson street, in this city, ou Monday uight. A cry of fire caused a panic, and in the efforts to leave the building 19 Chinamen were killed and a number more injured. Some of those killed were suffocated and others trampled to death.

Latest news from the armies on the Morava is that the Turks have penetrated the Servian lines and cnt General Tchernayeff's army in twain. Confirmation of this news will be accepted as the signal for the advance of the Turks down the Morava valley upou Belgrade.

Continued from Page 299.

directly. This is a common fault with the male goose. If but two geese are kept with your breeder, it is best. The goslings will be stronger, the eggs more certain to hatch.

If well fed during the winter, geese will lay in early March from half a dozen to a dozen eggs. They generally give you two or three litters in a season. With high feed, 40 to 50 eggs may be had in a year from a three-year-old goose. After her first laying she will incline to sit.

The geese will directly make for the water in the morning, when let out of their house; and if this be river, stream, pond, puddle or tank only, there the intercourse between the gander and his mates occurs, which fertilizes the eggs.

For two or three weeks after the goslings are hatched ont they should be kept away from the water and ont of the hot sun's rays; either will weaken or destroy them. Feed them at first with cooked bran, bread crumbs soaked in milk and scalded Indian meal. They will devour fresh cut grass at once. This is good for them, or chopped cabbage leaves, for a week. Keep them away from swimming in cold water. Thus (like ducklings) you save them from cramps, which attack them at first when they are young and tender.

Again, they must not be exposed for two or three weeks (more than should be the young turkey-poults) to cold, heavy dews, to damp, wet floors in the house or to bathing in cold water at all. Such exposure will kill one-half of your goslings.

Feed the young well every day for the first month. Then let them run in the pasture and join the old birds in the water.

From the Embden goose two or three pounds of feathers may be had annually. These are worth $1.50 to $2.25 (at 75 cents per pound). The young bring $3 to $5 each (when common geese sell at $2.50 a pair) in market. Ten geese and four ganders will thus yield in feathers some $30 and raise young worth $300 to $500 in a year. They are hardy, never troubled with disease, easy to raise, cost nothing to keep and are a source of great profit on any farm.

The Vineyard.

R. B. Blowers' Raisin Vineyard.

The reporter for the *Call*, from whom we recently quoted, has been pursuing his investigations in grape growing for raisins and visited R B Blowers, of Woodland, Yolo county. Mr. Blowers is a man of intelligence, whose experience in growing raisin grapes dates back to 1862, and the information imparted by him is especially valuable, as coming from one who has given the business the closest attention for 14 years, and who produces the highest priced raisins sold in this market. He received a gold medal at the Centennial exhibition. The reporter found him ready to communicate, in the most unselfish manner, for the benefit of others, the results of his years of research.

Climate.

Mr. West says that the Muscatels require a warm soil and climate. If the spring is cold and the soil heavy, they do not set well. The second crop is often better than the first, but is too late to be made into raisins. It is absolutely necessary in selecting a locality for the cultivation of the Muscatel grape for raisins in this State, that it be sufficiently warm to ripen the fruit by the middle of September, and earlier if possible. Much later than that date the drying proceeds too slowly to get the raisins out of the way before the first rains are likely to fall. Mr. Blowers says another requisite is that the warmth should be steady during the early summer while the vines are in blossom and the fruit setting, as sudden changes to cool, cloudy weather, by checking the flow of sap at that critical period, cause the flowers to blast and the vine to shed its fruit, even when as large as small peas. These conditions, therefore, restrict the raisin business to the warm interior valleys of the State. This may not hold good with regard to the Sultana and Corinth grapes, both of which ripen earlier and dry quicker than the Muscatels.

Location and Soil.

Although the vine thrives in most parts of the State without artificial watering, in view of the necessity of having fruit of large size for the production of the finest raisins, and the prospect that the phylloxera may become troublesome in the future, it is generally agreed that the vineyard should be located so as to admit of irrigation. The tract to be planted should, therefore, always be accessible to a liberal supply of water, and the surface should be of such a form as to admit of its easy distribution. The soil most congenial to the Muscatels seems to be a rich, well-drained, sandy loam. That of the vineyards of Mr. Blowers and G. G. Briggs, at Woodland, is rich gray loam, about eight feet in depth, and that of Mr. West, at Stockton, is similar in color, but considerably heavier and inclined to clay. The raisin grapes thrive admirably in both locations, and will doubtless succeed on any rich, deep soil, except heavy clay or adobe.

Preparation of the Ground

Mr. Blowers proposes to plant a tract of 18 acres during the coming season, and in describing this part of the work we shall confine ourselves more particularly to the method practiced by him. The ground was fallowed during the past summer and will be thoroughly plowed and harrowed as soon as the rains have sufficiently moistened it to render it friable. The vines are to be planted ten feet apart each way, in order to give plenty of space between the rows for drying the grapes, with spaces of 15 feet every ten rows for the passage of teams. The next operation is to mark off the ground into "lands" ten feet wide. The furrows are turned in opposite directions from the center, where the row of cuttings are to be planted, after which the plow goes through again, turning furrows outward from the dead furrow for a space of about two feet on each side, so that the center is now two furrows deep. Just before planting is commenced, the plough again goes through the depression to be occupied by cuttings, loosening the soil still deeper in order that when the ground is again levelled that along the row will have been thoroughly loosened to a depth of about two feet.

The Cutting and Planting.

There is a difference of opinion as to whether rooted vines or cuttings give the most satisfactory results, and both have earnest advocates in this State. Mr. Blowers is in favor of cuttings, asserting that with him they make much the most vigorous vines. There is also a diversity of opinion as to the proper length for cuttings, but about three feet seems to give the best results. It permits the lower portion to be planted horizontally, and at such a depth that when the upper part is bent into a perpendicular position, it brings two buds above the surface of the ground after the whole is again leveled. The horizontal portion of the cutting should not be more than 15 to 20 inches below the surface in most soils, otherwise it would be likely to rot instead of taking root.

Time of Planting.

There is no stated period for the work in this State, nor agreement among grape-growers as to the most suitable time for this important operation. In passing through the wine regions one sees planting going on at almost any time during the wet season, the most active period being from January to March. Mr. Blowers is decidedly in favor of early planting, and would not put off the work later than the last of January. By following the plan here given he once put out 1,200 cuttings and only three failed to grow. Five years ago he planted in January and lost only five per cent., while with the same treatment he lost 25 per cent. of those planted in February. The advantages of the method for starting a vineyard as above described are, the certainty of a greater portion of the cuttings taking, and of their making a more vigorous growth afterwards. With short cuttings, planted perpendicularly, the usual custom in this State, there is the objection that as the ground settles around them the newly formed and delicate rootlets are torn off, while long cuttings, a portion of each being planted horizontally, are not subject, to the same extent, to this difficulty. If, however, the vineyard is to be irrigated, the water can be brought on shortly after the planting is completed, and this will effectually settle the earth around the cuttings and prevent any injury from this cause.

Pruning.

The Muscatel vine is found to produce the largest crop and most perfect bunches when the crown is kept low, and this is especially the case in windy districts. If the crown of the vine is kept near the ground, the lowest branches being just far enough above the surface to allow the passage of the horse-hoe close up to the trunk, there will be little twisting off of the young growth, or chafing by the wind. In the vineyard of Mr. Blowers the crowns of the vines are so low that most of the bunches of grapes rest upon the ground, but are not in the least injured thereby and attain a perfect development.

Cultivation.

As soon as pruning is finished, the plows are started, the furrows being turned away from the vines. After the whole is gone over in this manner, a horse-hoe or cultivator is run crosswise of the furrows, in order to loosen the narrow unbroken strip of land between the vines that was left when first going over the ground. A skillful workman is able to run the plough so near the vines that little is left to be done by hand. At Woodland two thorough cultivations of the vineyard are found to be sufficient. The second usually takes place after the rains have ceased and the buds have started, and the furrows are turned toward the vines, leaving the dead furrow midway between the rows, into which, later in the season, the water is turned when the vineyard is to be irrigated. Manure has not yet been made use of to any great extent in California vineyards, but Mr. Blowers proposes this season to apply pulverized bone to his vines, believing that to be the most suitable fertilizer.

Irrigation.

The vine lives and produces fair crops in nearly all parts of California, and where wine is the object in view, is doubtless better without the application of water during summer. But when the object is to produce heavy crops of large fruit, irrigation must be resorted to. The practice of Mr. Blowers is to give the land a thorough soaking for several days during the coldest part of the winter. At that season the vines are perfectly dormant, and the water may cover the ground for an indefinite period without injuring them. Flooding the vineyard has been found in France to be the only effectual remedy for the phylloxera, and is doubtless a great destroyer of other insects. The next application of water is made in summer, after the second crop of fruit has set, and the streams which are the source of supply have become warm from the heat of the sun. Experience has demonstrated that the application of cold water to the vines while in blossom, and when the fruit is setting, is certain destruction to a large part of the crop. The cold water is supposed to check the flow of sap like a sudden change in the weather, the effects of which, in causing the flowers to blast and fruit to fall, were mentioned under the head of "climate" in another part of this article. A thorough saturation of the soil at this season, which at Woodland is about the first of June, is found to be sufficient to keep the vines in vigorous growth during the remainder of the summer, and bring the fruit to perfection. In lighter and less retentive soils, however, it may be necessary to apply water more than once during the summer.

The First Crop.

If the vineyard has done reasonably well, an occasional bunch of grapes may be found on the vines the second year, but the first crop, and that a light one, need not be expected until the third year. If every stage of the work up to this time has been thoroughly done, the first crop of fruit should be of sufficient value to pay the expense of the third year's cultivation. From this time the vineyard begins to yield a profit, and at the sixth year is considered to be in full bearing.

Vines in St. Helena—Grape Syrup.

EDITORS PRESS:—The leading interest of St. Helena is the product of the vine. We have 17 cellars in the immediate vicinity of St. Helena, and it has been estimated that they will make at least 800,000 gallons wine this season. This estimate still left a large quantity unprovided for. Those having varieties suitable for converting into raisins have sent them to the driers or spread them out in the sun. The latter have been more or less damaged by the late rains. It has been suggested that drying floors be made on sloping ground and canvas coverings provided to be spread on frames, the coverings to be removed or replaced by means of rollers. This plan, it is thought, will insure a fine article, as they easily can be covered every night from the bleaching effects of the dew. Some plan of this kind will have to be adopted, unless cheaper driers are introduced than are now in use.

Mr. John Weinberger, who has just built himself a very fine wine cellar and is converting a large amount of grapes into wine, has also introduced one of Cook's evaporators, and is converting the juice of the Mission grape into a delicious syrup. Messrs. Bruce & Gilliam are also making an excellent article, a sample of which I send you per Wells, Fargo & Co.'s express. [Allusion to this syrup is made elsewhere in this issue of the PRESS.—EDS]

Mr. Weinberger informs me that 100 gallons of the juice will make about 40 gallons of syrup; and with grapes at $8 per ton, the syrup can be sold for about 60 cents per gallon. J. M.

St. Helena, Cal., Oct. 23d, 1876.

CANNON HALL MUSCATS.—EDITORS PRESS:—Those extra fine Cannon Hall Muscats, of which I spoke in my letter, published in RURAL PRESS of October 28th, were grown in James R. Keene's vineyard, at Mission San Jose, Alameda county. Any information pertaining to them can be obtained from Mr. C. Woods, who is now making raisins at the Mission from them and other Muscat grapes. W. A. SANDERS.

The Immigrant Bureau Re-Organized.

A Free Employment and General Information Office.

The Peoples' and Grangers' Immigrant Bureau, which accomplished so much good last year, has been re-organized under a new Board of Directors, and will continue its good work of attracting immigration and providing for the necessities of the new comers FREE OF CHARGE. Four thousand and eighty-two situations have been found for applicants since May, 1875 The Bureau expects to receive orders for all the help that may be required in the country the present season. Four hundred persons visit the office daily. Descriptions of land, maps pamphlets, circulars, and local newspapers, should be sent to the Bureau. They will be freely distributed among inquirers. The Bureau was established by the State Grange, and being supported *entirely* by subscription NO CHARGE is made for any business transacted. The following gentlemen are on the Board of Directors for the ensuing year: Mayor A. J Bryant, Chairman; I Friedlander, C. Adolphe Low, Mark L. McDonald, Amos Adams, J. Regensburger, C. D. Sullivan, Charles Lux. George H. Eggers, J. C. Wilmerding, C. J Cressy, John Morton, Col. A Wason, Hon. F. A. Gibbs, F. B. Taylor, C. H. Dennison, Claus Speckles, Charles Kohler, A. W. Thompson, All communications should be addressed, J. EARL, MANAGER, IMMIGRANT BUREAU, Grangers' Building, 40 California street, San Francisco.

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Assets, October 15, 1876..... 268,716.52

MUTUAL PLAN.

	AMOUNT.	PREMIUMS.
Risks written to Oct. 1, '76...	$5,181,591.00	$114,445.57
Less Amount Canceled.....	300,644.00	6,297.50
Amount in force, Oct. 1, '76..	$4,880,947.00	$108,148.07
Losses paid.....		$7,251.00

CASH PLAN.

	AMOUNT.	PREMIUMS.
Risks written to Oct. 1, '76...	$2,585,914.19	$51,606.96
Less Canceled and Expired...	976,908.00	$19,538.16
Amount in force, Oct. 1, '76...	$1,609,006.19	$32,068.80
Losses paid.....		$10,153.71

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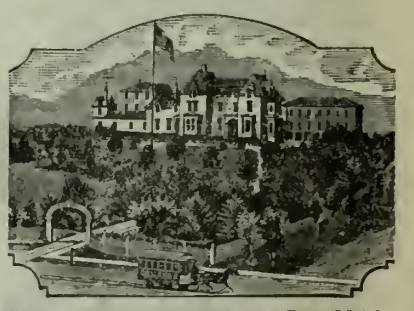
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SACRAMENTO, May 29th, 1875.

MESSRS. DEWEY & CO.—*Gentlemen:*
Yours of the 27th inst. is received. The patent came duly to hand yesterday, by express. Please accept thanks for your promptness in obtaining the same.
Very respectfully, DUNCAN BEAUMONT.

Breeders' Directory.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

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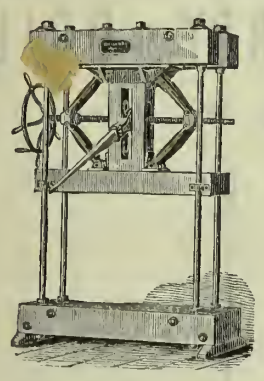
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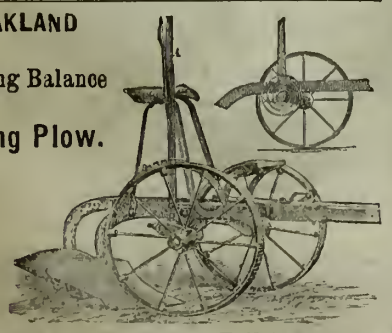
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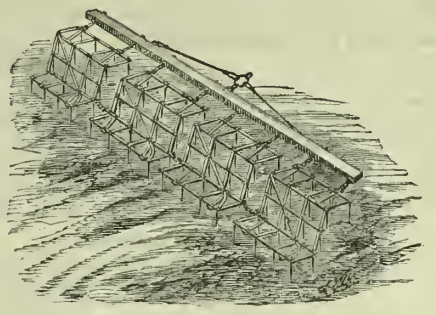
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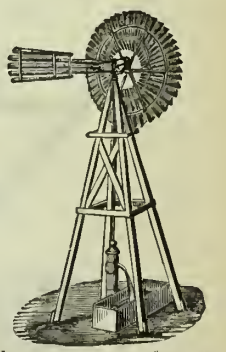
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Much Obliged, Etc.

Portland, Oon., June 26th, 1876.

Dewey & Co., Patent Solicitors, S. F.—*Gents:* I am much obliged to you for courtesy shown me, and am well pleased with the manner in which you have done my business, and assure you, will cheerfully recommend you to my acquaintances needing such services. Hope to have a case again before long, of my own. I have been an inventor all my life, but let others reap the benefit, or had work stolen from me. Please have the extra copies of my patent, etc., mailed to me direct, and oblige Yours truly, J. H. Woodrum.

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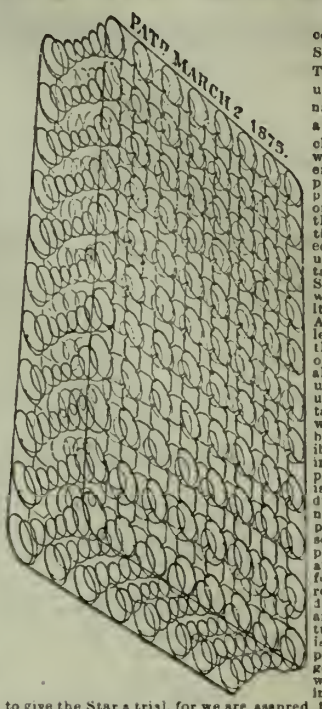
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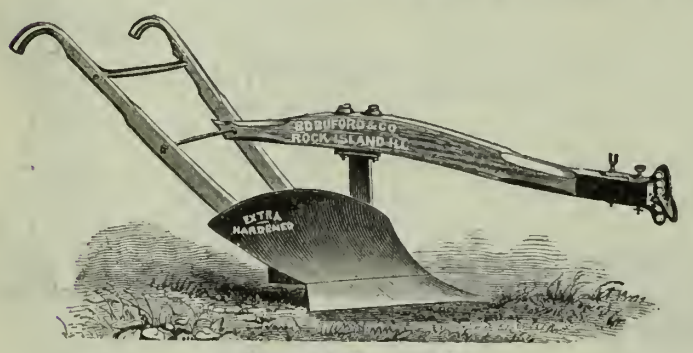
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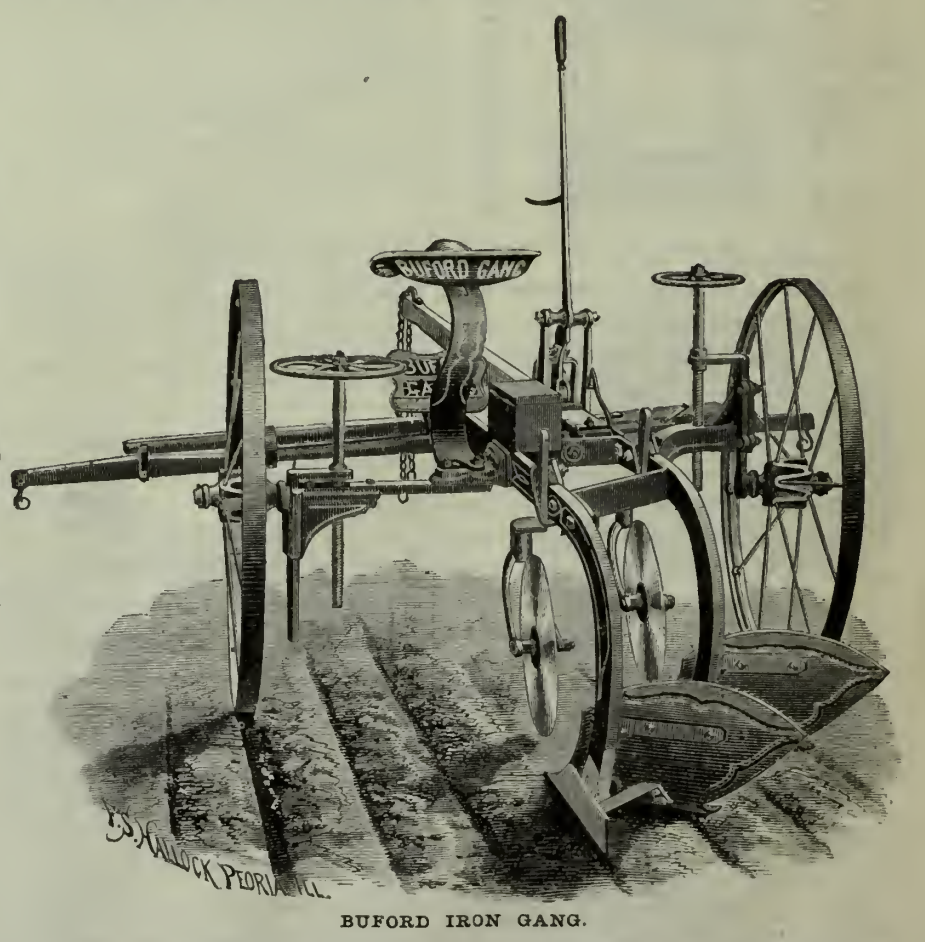
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HARROWS, CHISEL CULTIVATORS, CAHOON SEED SOWERS, Etc.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Wednesday, Nov. 1st, 1876.

The coming of the rains awakens trade in some lines of manufactured goods and gives a life to the city, thus reflecting the beginning of active work in the country. The gradual movement of Eastern affairs toward a peace bsis brings temporsry weakness to our Grain market. Holders are firm, but pnrchasers are on the lookout still, and transactions have been small and at lower rates than were talked two weeks ago. During the week the cable has shown a descending tendency.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Prodnce Exchange dnring the days of last week has been aa recorded in tho following table:

	Cal. Average.			Club.		
Thursday	10s	4d@10s	7d	10s	7d@11s	—
Friday	10s	4d@10s	7d	10s	6d@10s	10d
Saturday	10s	4d@10s	7d	10s	6d@10s	10d
Monday	10s	4d@10s	7d	10s	6d@10s	—
Tuesday	10s	3d@10s	6d	10s	6d@10s	9d
Wednesday	10s	3d@10s	6d	10s	6d@10s	—

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.			Club.		
1874	9s	8d@10s	—	10s	4d@10s	9d
1875	10s	11d@11s	2d	11s	4d@11s	9d
1876	10s	3d@10s	6d	10s	6d@10s	9d

The Foreign Review.

LONDON, October 30th.—The *Mark Lane Express* says: There has been better weather during the past week, and in the North the remains of the outstanding crops have been mostly gathered. The condition of the crop is deplorable. In many districts, Barley and Oats are hardly worth cntting, and the grass was ao aodden as to have lost much of its nourishing properties. Reports of the Potato blight are gloomy. The disease as yet is confined to a few English and Scotch districts, but it is feared that it will extend to Ireland. Fine, dry weather is greatly needed for Potatoes, and for sowing Wheat, a conalderable acreage of which has been sown during the present week. Holders of Wheat remain very firm and millers buy very reluctantly, but they are by no meana satisfied that an advance in prices is improbable. The local trade has been quiescent, with a moderate consumptive demand. Wheat has, with difficulty, maintained previous prices. Maize, Flour and Feeding stuffs are unchanged. Arrivals off the coast have been very limited. California cargoes on passage have declined slightly from the highest point, but a firmer feeling has been shown laiterly.

Freights and Charters.

The past week, says the *Post*, has not been accompanied by much life or tone to the freight market. A large number of vessels have arrived here in ballast, seeking charter. There was no record kept of these npon the list of vessels on the way, and the fact that many have already arrived in this manner is sufficient to indicate that others will in due time put in an appearance. This, quite unexpectedly, adds to our visible tonnage supply, and has anything but a hardening tendency upon rates At present we quote £2 15s to a direct port, and £2 17s 6d to Cork for orders; Havre, £3; Antwerp, £3 2s 6d. We have now in port 62,065 tons of tonnage secured for Wheat, 5,384 tons for miscellaneous and 42,284 tons are disengaged. Following are the engagements of the week: Br bark Osseo, 601 tons, wheat to Cork, prior to arrival; Br ship Northern Monarch, 1,280, wheat to Liverpool, prior to arrival; Br ship John O'Gaunt, 1,327, wheat to Liverpool, prior to arrival; Br ship Olty of Berwick, 1,187, wheat to Liverpool. prior to arrival, £3 2s 6d; Br ship Cape Sshle, 1,480, wheat to Liverpool, prior to arrival, £3 5s; ahip Hellcon, 1,200, wheat to Cork. £2 17s 6d, or Havre, £3, or other continental ports, £3 2s 6d; Br bark Mary Low, 910, wheat to Cork, £3; ahip North American, 1,534, wheat to Liverpool, prior to arrival, £3 2s 6d; ship Olive S. Southard, 1,193, wheat to Liverpool, prior to arrival, £3; Br bark Cormorin, 803, wheat to Cork, U. K., prior to arrival, £2 17s 6d; Ger bark Fulda, 860, wheat to Cork, for orders, prior to arrival, private.

Chicago Grain Market.

CHIOAGO, October 29th.—The week that has just closed has been marked by no great variations in the prices of the principal cereals, and though there has been a very large legitimate business transacted in nearly every branch of produce, and the speculative dealings have nearly equaled those of the preceding week, the situation seems practically unchanged as regards the future. The Eastern question seems to have assumed a phase which will prevent any sudden rise in the near future on account of a probable war, and prices here seem to have a receding rather than an advancing tendency. Receipts have been large, and shipments not so heavy as had been anticipated; consequently stocks are not moving out rapidly, and a season of the year is approaching when freights are inevitably high. The price of cash Wheat has ranged from $1.09 to $1.13, closing at $1.10¾. Corn has sold at 42 to 43¾c, closing at 42¾c; Oats at 32¼ to 32⅝o, closing at the outside price. Rye and Barley have weakened, Rye closing at 61c and Barley at 62c. Little importance is attached to the latter two cereals just now. Receipts for the week have been—Wheat, 585,000 bushels; Corn, 944,000; Oats, 269,000; against 955,000 Wheat, 682,000 Corn, and 570,000 Oats for the same time last year. Shipments have been—Wheat, 580,000; Corn, 1,144,000; Oats, 274,000; against 721,000 Wheat, 455,000 Corn, and 313,000 Oats for the same period last year. The falling off in receipts since last year, in the face of high prices, indicates either great confidence on the part of producers that there will be war and higher prices further on, or that the crop in the Northwest has fallen far short of expectations, based on statistics and the observation of usually accurate judges.

New York Grain Market.

NEW YORK, October 29th.—In the Wheat market there are few features of interest to note. The news from Great Britain has been rather disappointing; the leading markets have been dull, and prices of common qualities of spring have not been sustained. This has exerted an unfavorable influence here and at the West, but the principal holders have very generally contended for full prices. This has greatly restricted business, as the limits of most shippers' orders are below current prices inslated on. Old spring has ruled very quiet, though if free and cool it has been strongly held. Winter was in demand, but business was restricted for want of an assortment.

Oregon Wheat Shipment.

PORTLAND, October 31st.—The French bark Bluche cleared to day for Cork for orders, carrying away 15,017 centals of Wheat, valued at $24,778. The British bark Kingdom of Sweden sailed to-day for Europe with 22,809 centals of Grain, valued at $35,353. There is a large number of vessels here seeking charter. Farmers are holding back for higher rates, and Wheat is coming in slowly. Ruling rates are steady and firm at $1 50@1.55 per cental.

California Barley in Chicago.

The *Western Brewer*, of Chicago, says of California Barley: The advance in freights checked the demand for California Barley, and only a few car lots have been received, some of which have sold at $1.25 per bushel. The brewers have received some of the Grain contracted for last month, but it is understood that they have not made any large contract since September. Receivers are much dissatisfied with the inspection, which they claim is much too rigid, or the rules are misinterpreted by the inspectors in their efforts to remove the objections which existed last year. It has been said that some of the Barley which has been received and inspected as No. 3, was quite good enough to pass as No. 2, but was excluded from that grade on account of dew stains, which did not materially injure the grain for brewing purposes. They say the grain is plump and sound, and is only a little off in color. In proof of the injustice to receivers, many cases are presented where car lots which had been inspected as No. 3, have been sold subsequently by aample at 5@10c above the price of No. 2, and often to parties who are considered good judges of Barley. Some dealers think the inspection of No. 3 is not rigid enough.

Eastern Wool Markets.

NEW YORK, Oct. 28th.—The Wool market continnes active, though the demand is chiefly speculative. Manufacturers are proceeding very cautiously, hoping for a turn in their favor. The position of the market is, however, favorable to the holding interest, and the course of prices is upward. Stocks are light on the seaboard, and through the interior they are known to be greatly reduced. Sales for the week are: 218 bales choice spring California at 30½c; 23,000 lbs inferior do, 23@27c; 119,000 lbs fall do, 15@22c; 680 bags Western Texas, 18@21c; 2,000 lbs X pulled, 40c; 10,000 lbs XX Ohio, 46c; and 250 bales Cape, 10,500 lbs Utah, 40,000 lbs White Colorado, 2,000 Black do, 43,000 lbs Oregon, 12,000 lbs Eastern Texas, 5,000 lbs Southern, 50 bags super pulled, 28 do short X do, 50,000 lbs X and XX Ohio, and 100,000 lbs State, on private terms.

PHILADELPHIA, October 31st.—Wool is in moderate demand, supply light, market almost bare, with prices firm and tending higher. California fine and medium, 25@28c; coarse, 22@25c.

Domestic Produce,

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week Oct. 11.	Week Oct. 17.	Week Oct. 25.	Week Nov. 1.
Flour, quarter sacks	84,677	34,972	42,711	111,793
Wheat, centals	404,408	424,611	433,997	514,389
Barley, centals	82,457	83,491	53,119	41,378
Beans, sacks	1,940	2,224	2,584	6,248
Corn, centals	4,253	1,742	2,998	1,398
Oats, centals	7,694	3,846	3,091	7 380
Potatoes, sacks	17,901	13,970	16,490	21,960
Onions, sacks	1,560	2,232	1,859	1,427
Wool, bales	8,337	6,619	8,383	6,291
Hops, bales	794	522	989	1,358
Hay, bales	1,881	1,733	1,379	996

Bags—Bags are still in an unsettled condition and prices are nominal. The stock belonging to the suspended firm still overhangs the market. There was an offer of 278,000 wheat Bags of this stock at auction during the week, but they were withdrawn without sale. The rate for standard ranges from from 10 to 11c, or at any price at which a sale can be made.

Barley—Feed Barley is quotable a point lower. The amounts received are large and the stock is freely offered. Brewing and Chevalier maintain their prices. We note sales: 1,250 sks Brewing at $1.07½; 1,000 do at $1.10; 250 fair do, $1.07½ per ctl; and 400 sks Coast Feed at 95c, silver; 110 sks Coast Feed, 92½c per ctl, silver; 100 do fair Brewing, $1.07½; 200 ctls choice Bay Chevalier, $1.40, gold; 200 sks good Coast Feed, 95c, silver; 500 do bright Bay Feed, 97½c, silver; 400 do Coast for seed, $1; 500 do choice Chevalier, $1.37½ per ctl, gold; 1,500 sks good Brewing, $1.12½; 1,200 do fair do $1.07½; 700 do fair Feed, 90c, silver; 1,000 sks Coast Feed, 90c; 6,200 do do, 92½c; 400 ctls do, 93c; 1,200 do do, 95c per ctl, all silver.

Beans—The receipts are increasing and the winter trade in dry Beans is beginning. We note a change since last week, by which Butter Beans are lower and Pink higher by several points. Prices in our tables.

Corn—Corn has shown a slight tendency to fluctuate during the week, but prices are not greatly removed from former range, aa may be learned from the following sales: 200 sks Small at $1.15 per ctl, and 780 sks Large Yellow at $1.15, silver; 140 sks Large Yellow at $1.12½; 700 do Large and Small Yellow, in two lots, $1.15 per ctl, silver; 750 sks Large Yellow at $1.15 per ctl, silver; 1,000 sks Large Yellow, $1.15, silver.

Dairy Produce—Prices for Butter are unchanged, excepting for some fancy brands which have sold higher in small lots. There is still a great variety in the quality of the fresh roll which is offered, and the range in price is wide, as our quotations will show. The quick growth of fresh feed is looked upon as liable to increase the amount of fresh roll, and consequently pickled roll is weakening. The prospect of a fair demand for all kinds of Butter is quite favorable, because there is very little Eastern Butter in the state, and though prices may not advance greatly, there is a prospect of a full consumption of the make. Cheese maintains its former range, with no improvement yet noted.

Eggs—Eggs have advanced, fine fresh Eggs selling at 50c, with selections at 52½c per doz.

Feed—Ground Feed prices are unchanged. Hay improves a little, an extreme of $14 per ton being now available by the choicest Wheat. Sales have been small. We note a sale of mixed quality, 20 tons at $11.50.

Fruit—There is no change in the Fruit market except a reduction of some kinds of grapes. Mexican Oranges are now in the market.

Hops—Receipts of Hops by sea noted. The City of Panama from Victoria arrived with 357 bales from Tacoma. The Geo. W. Elder from Oregon brought 124 bales. The local market is unchanged. There are few sales and the range is still 25@28c, with some lots held at 30c. Emmet Wells reviews the New York market for the week ending October 20th:

Trade has been very quiet this week; and when sales have been at all forced, a concession of one and two cents per lb, has been submitted to. The dullness is attributed to a falling off in the export demand; the shipments this week being only 1,400 against 2,400 bales last week. By this it will be seen, that the only real assurance we have of a healthful tone to the market in the future, lies in our ability to ship freely from our large supplies, for if we are dependent wholly upon a dragging, hand-to-mouth demand from brewers, present prices cannot be maintained.

The London *Brewers' Guardian* says: "The German markets continued very active during the past week, and the famine prices close with an additional rise. The cause may be traced to short supply, and the fact that the Hops came down much lighter than was estimated. Moreover, the present bad weather arrests the drying to such an extent that the proportion of discolored and wind-beaten Hops is much larger than has been the case for many years past. English Hops continue to be shipped to Germany, but, although of comparative low values, do not find the expected attention of brewers."

Oats—Oats continue in good demand and prices are firm. We note sales: 560 sks fair Feed, $1.65; 300 do good Coast do, $1.70 ₱ ctl, both half silver; 1,400 do Washington Territory Milling, $1 87½; 200 sks common Feed, $1.45; 700 do good do, $1.65 ₱ ctl, both half silver; 500 do Milling, $1.75, gold; 2,500 sks good Coast Feed, in two lots, $1.55, gold; 300 sks at $1.80 ₱ ctl, half and half.

Onions—Onions are unchanged, except an advance of 5c ₱ ctl for finest lots.

Potatoes—Petaluma Potatoes are beginning to arrive, sales being made $1@1.05 ₱ ctl. Humboldts have also made a showing, but the lots were generally small and poor and prices for this brand are not yet established. Cuffey's Coves are a point lower.

Poultry and Game—Poultry is unchanged.

Provisions—Beef is abundant and low. Mutton is plenty and prices are maintained. Hogs are also in good supply and in good demand for packing at our quotations. The Provision market is active and prices are well maintained. Lard is lower and Smoked Beef has a lower inside figure.

Rye—Rye is held at 55@60c.

Vegetables—Green Peas, Summer Squash, String Beans, Lima Beans, Green Okra and Cucumbers are all advanced in price during the week.

Wheat—Sales of Wheat have been few and at inside prices. We note sales as follows during the week; some of the prices are above the prices offered to-day: 600 ctls shipping, $1.62½; 20,463 sks do, from warehouse, $1.67½; 1,600 do choice do, $1.70; 1,850 ctls choice milling, $1.75; 200 sks shipping, $1.65; a small lot of Coast for seed sold at $1.70; 5,200 sks Bay shipping, 5,000 do Coast do, terms reserved; 10,000 ctls good shipping at $1.70 per ctl; 7,500 ctls fair shipping at $1.60; 1,200 sks shipping at $1.70; 20,460 ctls fair shipping, $1.67½; 2,200 do choice milling, $1.75; 2,400 do do, $1.80.

Wool—Wool prices are unchanged. We note sales in this market of 100,000 lbs fall at 13@21c; 21,000 Oregon, 25c.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., Nov. 1, 1876.

BEANS.

Bayo, ₱ ctl	2 25	@	2 75
Butter	1 5	@	1 87½
Pea	2 00	@	2 50
Pink	2 75	@	3 00
Sm'l white	2 00	@	2 10
Lima	1 75	@	2 00

BROOM CORN.

Common, ₱ lb	2	@	2½
Choice, do	3	@	4

COTTON.

Cotton, ₱ lb	15	@	18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll ₱ lb	30	@	45
Point Reyes	50	@	52½
Pickle Roll	32½	@	35
Firkin	25	@	32½
W'st'n Reserve	16	@	25
New York	—	@	—

CHEESE.

Cheese, Cal., lb	10	@	15
do Old	—	@	—
Eastern	12½	@	15

EGGS.

Cal. fresh ₱ doz	45	@	50
Ducks'	40	@	—
Oregon	40	@	4 ½
Eastern	21	@	30

FEED.

Bran, per ton	17 00	@	—
Corn Meal	27 50	@	—
Hay	8 00	@	14 0
Middlings	22 50	@	—
Oil cake meal	—	@	33 50
Straw, ₱ bale	55	@	60

FLOUR.

Extra ₱ bbl	5 00	@	5 75
Superfine	4 50	@	5 00
Graham, ₱ bbl	4 50	@	4 75

FRESH MEAT.

Beef 1st quality lb.	4½	@	6
Second do	3½	@	4½
Third do	2½	@	3½
Mutton	4	@	4½
Pork, undressed	6	@	6½
do, dressed	8¾	@	8¾
Veal	5½	@	6
Milk Calves	5½	@	7

GRAIN, ETC.

Barley, feed ctl	90	@	95
do brewing	1 05	@	1 17½
Chevalier	1 30	@	1 40
Corn, White	1 12½	@	1 15
do Yellow	1 10	@	1 15
Oats	1 40	@	1 65
Milling	1 70	@	1 85
Rye	1 55	@	1 60
Wheat shipping	1 60	@	1 70
do milling	1 70	@	1 80

HIDES.

Hides, dry	15½	@	16
do wet salted	6	@	7½

HONEY, ETC.

Beeswax, per lb	25	@	27½
Honey in comb	10	@	12½
do Strained	6	@	8

HOPS.

New crop	25	@	28

NUTS—Jobbing.

Alm'd an'rd sh'l lb	8	@	—
do, soft sh'l	14	@	16
Brazil do	14	@	16
Cal. Walnuts	12	@	14
Chile Walnuts	11	@	12½
Pecanuts	17	@	18
Peanuts per lb	8	@	9
Filberts	15	@	16

ONIONS.

Union City ctl	—	@	—
Stockton	55	@	65

POTATOES.

Petalnma, ₱ ctl	1 00	@	1 05
Salt Lake	—	@	—
Humboldt	—	@	—
Half Moon bay	75	@	1 00
Cuffey Cove	1 15	@	1 20
Early Rose new	60	@	75
Sweet	—	@	75

POULTRY & GAME.

Hens, per dz	7 00	@	8 00
Roosters	5 00	@	6 00
Broilers	3 50	@	4 50
Ducks, tame, dz	7 00	@	9 00
do Muscovy	8 00	@	—
do Canvass	—	@	8 00
Geese, per pair	2 00	@	2 25
Wild Gray dz	2 00	@	2 50
White	1 00	@	1 25
Turkeys, Live, lb	16	@	18
do Dressed	18	@	20
Quail, per doz	1 25	@	1 50
Snipe, En., doz	1 75	@	2 00
Doves, per dozeo	50	@	57
Rabbits	1 00	@	1 25
Hare, per doz	2 00	@	2 50
Venison lb	7	@	10

PROVISIONS.

Cal. Bacon, L't, lb	16	@	16½
do Medinm	15	@	15½
do Heavy	—	@	15
Lard	13½	@	15½
Cal. Smoked Beef	11	@	12½
Eastern do	—	@	—
East'rn Shonld's	—	@	12
Hams, Cal	15	@	15½
do Armour	—	@	—
do Worster's	—	@	19
do Dupee's	19	@	19½
do Davis Bros	—	@	19

SEEDS.

Alfalfa, Chile lb	9	@	13
do California	13	@	15
Canary	9	@	10
Clover Red	—	@	22
do White	50	@	55
Cotton	6	@	10
Flaxseed	—	@	3½
Hemp	12½	@	—
Italian Rye Grass	25	@	30
Perennial do	20	@	30
Millet	10	@	12
Mustard, white	5	@	6
do. Brown	3	@	3½
Rape	5	@	8
Ky. Blue Grass	30	@	—
do 2d quality	29	@	—
Sweet V Grass	—	@	75
Orchard do	30	@	35
Red Top do	—	@	25
Hungerian do	8	@	12
Lawn do	50	@	—
Mesquit do	20	@	25
Timothy	10	@	13

TALLOW.

Crude, ₱ lb	5	@	6
Refined	8¾	@	9

WOOL, ETC.

FALL—			
Free	12	@	14
Choice	14	@	16
Northern	17	@	21
Burry	10	@	13
Oregon Eastern	21	@	—
do Valley	25	@	—

RETAIL GROCERIES, ETC.

WEDNESDAY, M., Nov. 1, 1876.

Butter, Cal. ch'ice	50	@	60
Cheese, lb	18	@	30
Eastern	25	@	30
Lard, Cal., lb	—	@	18
Eastern	20	@	25
Flour, ex. fam, hl	6 25	@	6 50
Corn Meal, lb	2½	@	3
Sugar, wh. crsh'd	12½	@	13½
do lt. brown, lb	8	@	9½
Coffee, green, lb	23	@	35
Tea, fine blk,	50, 65, 75	@	1 00
Tea, finest Jap,	55, 75, 90	@	100
Candles, Adamant'e	15	@	25
Soap, Cal., lb	7	@	10
Rice, lb	8	@	12½
Yeast Powders	dz. 1 5	@	2 50
Bowen Bro. large can per doz	5 00	@	—
Small, do	2 50	@	—
Bowen's Cream Tartar lb	—	@	75
Can'd Oysters, dz.	2 00	@	3 50
Syrup, S F. Gol'n.	75	@	1 00
Dried Apples	10	@	12
Dr'd Ger. Prunes	12½	@	14
Dr'd Figs, Cal	9	@	10
Dr'd Peaches	11	@	15½
Oils, Kerosene	30	@	40
Wines, Old Port	3 50	@	5 00
do Fr. Claret	1 00	@	2 50
do Cal., dz. bot.	3 00	@	4 50
Whisky, O.K, gal.	3 50	@	5 00
Fr. Brandy	4 00	@	8 00

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., Nov. 1, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M	25 00	@	30 00
Tahiti, do	30 00	@	35 00
Cal. do	—	@	—
Limes, Mexican, ₱ M	10 00	@	12 50
Malaga Lemons, ₱ bx	—	@	—
Cal. ₱ 100	2 00	@	2 50
do Sicily ₱ b'x	14 00	@	—
Bananas, ₱ bnch	2 00	@	3 00
Cocoanuts, ₱ 100	6 00	@	7 00
Pineapples, ₱ dz	—	@	—
Apples, ₱ box	50	@	1 50
Apricots, lb	—	@	—
Blackberries cse	—	@	—
Cherries ₱ lb	—	@	—
Plums lb	2	@	3
Prunes lb	2	@	4
Figs	4	@	6
Gooseberries	—	@	—
Huckleberries	—	@	—
Strawberr's ₱ box	8 00	@	10 00
Pomgranates	—	@	—
Raspberries	—	@	—
Currants, ₱ cs	—	@	—
Cranberries bbl	14 00	@	15 00
Peaches, ₱ lb	5	@	9
Pears, ₱ box	50	@	1 50
Crab apples, ₱ lb	2	@	3
Grapes, ₱ box	30	@	50
Rose of Peru	50	@	75
Muscat	75	@	1 25
Black Hamburg	50	@	75
Tokay	75	@	1 00
Quinces, box	1 00	@	1 25

DRIED FRUIT.

Apples, ₱ lb	5	@	6½
Pears, ₱ lb	8	@	10
Peaches, ₱ lb	5½	@	7½
Apricots, ₱ lb	10	@	12½
Prunes, ₱ lb	3	@	4
Pitted, do ₱ lb	—	@	13
Raisins, imported	3 25	@	3 75
Cal. Raisins box	1 50	@	2 75
Black Figs, ₱ lb	5	@	7
White, do	12½	@	15
Prunes	12½	@	17
Citron	28	@	30
Zante Currants	9	@	10

VEGETABLES.

Asparagus ₱ lb	—	@	—
Beets ₱ ctl	—	@	60
Cabbage, ₱ 100 lbs	50	@	60
Carrots, ₱ 100 lbs	50	@	62½
Cauliflower, doz	—	@	50
Celery, doz	—	@	50
Garlic, ₱ lb	—	@	2½
Green Peas ₱ lb	3	@	3½
Green Corn ₱ doz	10	@	15
Sum'rSquash ₱ box	1 00	@	1 25
Marro'fat Sqush, tn	8 00	@	9 00
Artichokes, ₱ doz	—	@	—
String Beans, ₱ lb	2	@	2½
Lima Beans	3	@	—
Parsnips	—	@	—
Shell Beans	1½	@	2
Peppers, green, bx	60	@	75
Okra	8	@	10
Cucumbers, ₱ box	50	@	75
Tomatoes, box	50	@	75
Egg Plant, box	1 25	@	—
Rhubarb box	—	@	—
Lettuce, doz	10	@	—
Turnips, pr ctl	50	@	62½
Watermelons doz	75	@	1 25
Canteloupes do	60	@	7

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., Nov. 1, 1876

BAGS.

Eng. Stand Wht	10	@	11
Neville & Co's Hand Sewed	10	@	11
24x36	—	@	—
24x40	—	@	—
Machine do 24x40	—	@	15½
" " 23x40	14½	@	—
" " 22x40	13	@	—
" " 22x36	9½	@	10½
Flour Sacks ½s	9	@	11
" " ¼s	6	@	7
" " ⅛s	4½	@	5
Hessian 60-in	12¼	@	14½
do 45-in	10	@	—
do 40-in	8½	@	—
Wool Sacks, 3½ lbs	45	@	50
do 4 "	50	@	52½
Stand. Gunnies	11½	@	12
single seam do	—	@	—
Bean Bags	7	@	8

CANNED GOODS.

Ass't'd Pie Fruits in 2¼ lb cans	2 75	@	3 00
do Table do	3 75	@	4 25
Jams & Jellies	4 25	@	—
Pickles ½ gl	—	@	3 50
Sardines, qr box	1 65	@	1 90
do hf boxes	3 00	@	—

COAL—Jobbing.

Anstralian, ₱ ton	8 00	@	8 25
Coos Bay	—	@	9 00
Bellingham Bay	—	@	9 00
Seattle	—	@	9 00
Cumberl'd	14 00	@	16 00
Mt. Diablo	5 75	@	7 75
Lehigh	—	@	22 00
Liverpool	8 50	@	10 00
West Hartley	—	@	14 00
Scotch	9 00	@	10 00
Scranton	13 00	@	16 00
Vancouver's Isl.	10 50	@	12 00
Charcoal, ₱ sk	75	@	—
Coke, ₱ bbl	—	@	60

COFFEE.

Sandwich Island	—	@	21½
Costa Rica per lb	21½	@	—
Guatemala	20½	@	21
Java	—	@	24
Manilla	—	@	19
Ground in cs	25	@	—
Unioorv	27	@	—

FISH.

Sao. Dry Cod, new	5½	@	6½
cases	6	@	7½
do boneless	8½	@	10
Eastern Cod	8	@	9½
almon in bbls	6 50	@	7 25
S do ½ hbls	3 75	@	4 00
do 2lb cans	2 40	@	—
do 1lb cans	1 40	@	—
do Col. R. ½b	4 25	@	4 50
Pick. Cod, hbls	22 00	@	—
do ½ bbls	11 00	@	—
Mack'l, No. 1, ½ bls	11 00	@	—
" extra	—	@	12 00
" in kits	1 90	@	2 25
" Ex mess	3 50	@	4 00
" Ex mess. ½ bs	—	@	12 00
Pic'd Herr'g, bx	3 00	@	3 50
Bos. Sm'k'd Her'g	40	@	50

LIME, ETC.

Lime, S'ts Cruz, ₱ hbl	2 00	@	2 25
Cement, Rosendale, do	2 75	@	3 50
do Portland, do	4 75	@	5 50
Plaster, Golden Gate Mills	3 00	@	3 25
Land Plaster, ₱ ton	10 00	@	12 50

MISCELLANEOUS.

Pulu	—	@	7½

NAILS.

Assorted size, keg	3 25	@	4 00

OILS.

Pacific Glne Co Neat F't No. 1	1 00	@	90
Pure	—	@	—
Castor Oil, No. 1	1 05	@	1 10
Baker's A A	—	@	1 10
Cocoanut	—	@	60
Olive Plagniol	4 85	@	5 00
do Possel	4 45	@	4 50
Palm lb	9	@	—
Linseed, raw	—	@	65
do hoiled	—	@	70
China nnt in cs	65	@	70
Sperm	2 00	@	—
Coast Whales	60	@	65
Polar, refined	—	@	60
Lard	1 15	@	1 17½
Oleophine	—	@	37
Devoe's Bril't	38	@	39
Eureka	32½	@	38
Barrel kerosene	32½	@	—
Downer Kerose'e	45	@	—
Elaine	—	@	42

PAINTS.

Pure White Lead	9¾	@	10¼
Whiting	—	@	1¾
Putty	4	@	5
Chalk	—	@	1½
Paris White	—	@	2½
Ochre	—	@	3½
Venetian Red	—	@	3½
Averill Chemical Paint, per gal. White & tints	2 00	@	2 40
Green, Blue & Ch Yellow	3 00	@	3 50
Light Red	3 00	@	3 50
Metallic Roof	1 30	@	1 60

RICE.

China No. 1	5¾	@	6
Hawaiian, ₱ lb	7	@	—
Carolina, ₱ lb	10	@	—

SALT.

Cal. Bay, per ton	10 00	@	14 00
do Common	5 00	@	7 00
Carmen Island	12 00	@	15 00
Liverpool fine	13 50	@	16 50

SOAP.

Castile ₱ lb	10	@	10½
Common brands	4½	@	6
Fancy do	7	@	8

CANDLES.

Grant's	16	@	16½
Mitchell's	18	@	20

SPICES.

Cloves ₱ lb	45	@	47½
Cassia	23½	@	26½
Citron	28	@	30
Nutmegs	95	@	97½
Pepper	14½	@	14½
Pimento	16	@	17½
Gr'nd Allsp'd	—	@	12
do Cassia	—	@	50
do Cloves	—	@	50
do Mustard	—	@	20
do Ginger	—	@	00
do Pepper	—	@	00
do Mace	—	@	00
Bowen's Pure Ground ₱ lb	—	@	50

SUGAR, ETC.

| |

Seedsmen.

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THE SIX-FOOT MACHINE, with two horses, will seed 12 acres per day easily. THE EIGHT-FOOT MACHINE will seed 16 acres per day; THE TEN-FOOT MACHINE, with four horses, will seed twenty-five acres per day; THE TWELVE-FOOT MACHINE will seed 34 acres per day; THE FOURTEEN-FOOT MACHINE, with six horses, will seed 40 acres per day. ☞ Extras of all parts always found with us.

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Iron Harrows; Hard Wood Harrows, with adjustable hinges; Teeth of the Best Toe-Cork Steel; seven and nine Chisel Tooth Cultivators, with Reversible Teeth.

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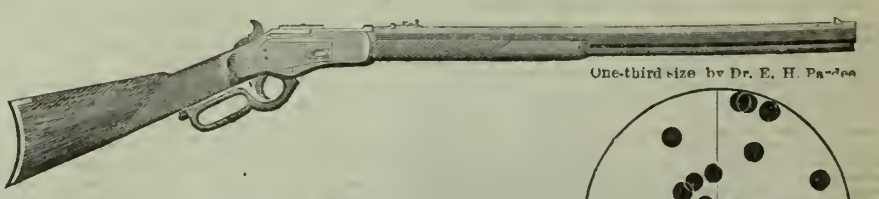
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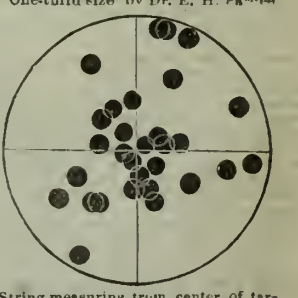
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String measuring from center of target to center of each shot, 32¾ inches. Average distance of each shot, 1 9-100 inches.

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The San Francisco Agency is now fully supplied with all the various kinds and styles of Arms manufactured by the Winchester Repeating Arms Company, to wit:

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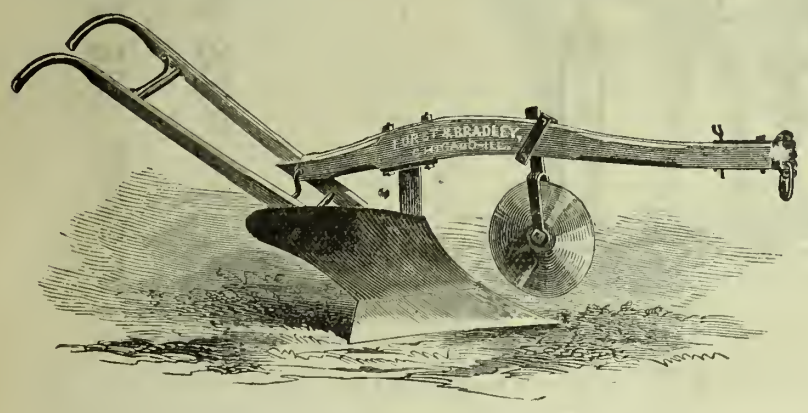
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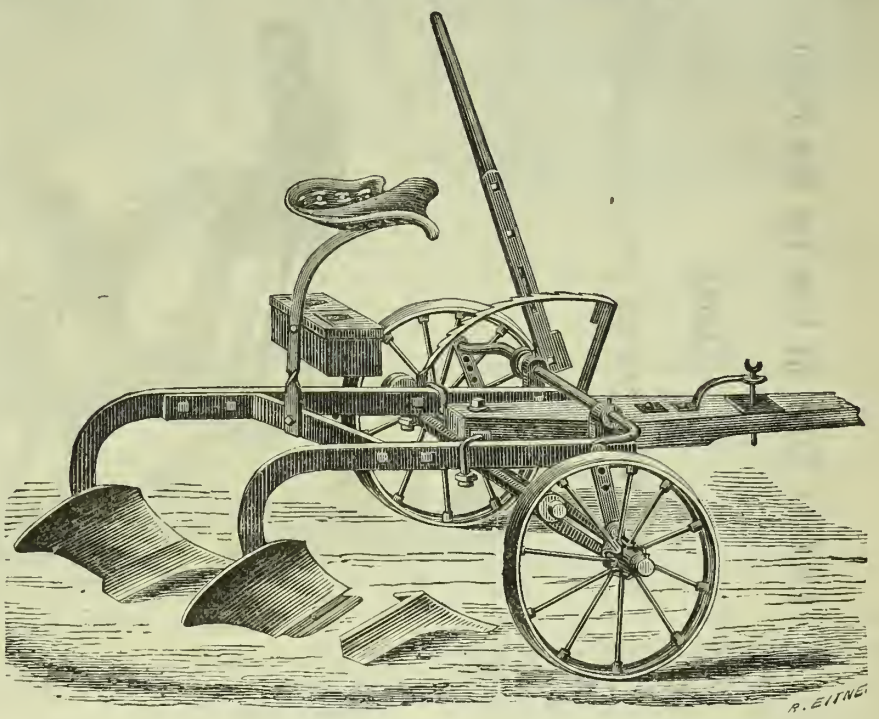
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We have three sizes, 10, 12, and 14 inch Price, $100.00.



GARDEN CITY CLIPPER PLOW.



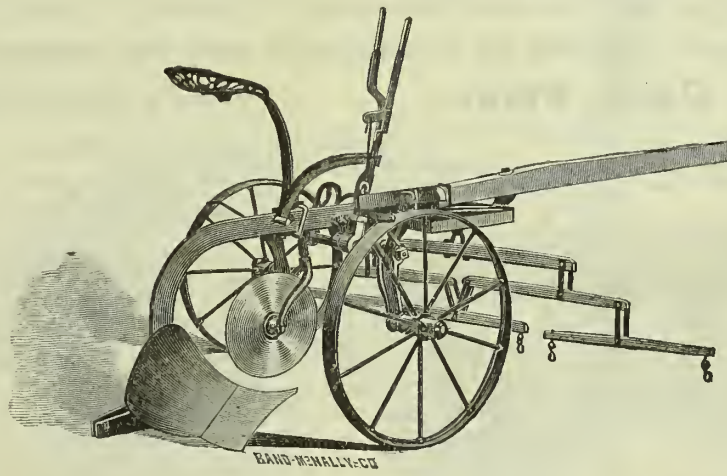
MYERS' EXCELSIOR GANG PLOW.

The established merit of the Garden City Plows is well known, they being the only small plow made out of cast steel. The manufacturers have visited all parts of this State and have constructed a plow peculiarly adapted to our wants.

No. 22½	cuts	10	inches. Price	$13 50
No. 26½	"	11	" "	14.00.
No. 31	"	12	" "	15 00.
No. 40	"	14	" "	16.00

We have also the Scotch Clipper for adobe, 12 and 14 inch, and Corn Plows to cut 7, 8, and 9 inches.

Sole Agents for Garden City Plows and Cultivators, Friedman Harrows, Fish Bros. & Co's Wagons, Wm. Anson Wood's Mowers, Russell Reaper, Genuine Chicago Pitts Thresher, Granger Seed Sowers, and Little Giant Fan Mills. A Full Assortment of Agricultural Tools.



FURST & BRADLEY SULKY PLOWS—Wood and Iron Beam.

This superior Sulky Plow has taken the first premium in Oregon and California, where now over one thousand of them are in use, being especially adapted to summer fallowing and potato land. It is sixteen inch cut, and turns under all foul weeds and coarse stubble, plowing to a greater depth than other plow. It is very easily handled, requiring but three horses, and with a rolling coulter it is impossible to choke.

Price, $75.00.

LINFORTH, KELLOGG & CO., - 3 & 5 FRONT ST., S. F.

CAUTION.

To Farmers and all others who put Barbs upon Wire Fences, Making a Barbed Wire Fence, and to all Manufacturers and Dealers in Fence Barbs and Barbed Fence Wire.

You are hereby notified, that in putting barbs upon wire, making a barbed wire fence, or in using or dealing in barbs or barbed fence wire, not made under license from us, you are infringing upon our patents, and we shall hold you strictly accountable for damages for all infringements of Letters Patent, Nos. 66,182, 67,117, 74,379, 84,062, 153,965, 157,124, 157,508, 164,181, 173,667; re-issues, Nos. 7,136, 6,976, 6,902, 7,035, 7,036, 6,913, 6,914, and other patents. Copies of our claims can be obtained of our attorneys, Coburn and Thacher, Chicago, Ill.

WASHBURN & MOEN MANUF'G CO.,
Worcester, Mass.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

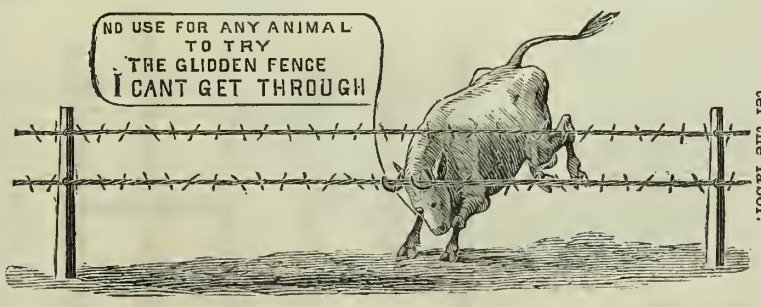
BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

ASK YOUR GROCER OR OIL DEALER FOR
"ELAINE"
THE FAMILY SAFE GUARD OIL

$250 A MONTH--Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

After Nearly Three Years' Test, the STEEL BARBED FENCE WIRE, Patented by J. F. GLIDDEN, Stands Head and Shoulders Above all Competitors, and is More in Demand than all Other Barb Fences Put Together.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



about one-half the cost of any other good fence; and can be put up for one-quarter the labor.

OVER 300,000 POUNDS SOLD IN CALIFORNIA THE FIRST SEASON OF ITS INTRODUCTION. THE GLIDDEN PATENT BARB WIRE HAS BEEN TESTED BY THOUSANDS OF PRACTICAL FARMERS, WHO UNIVERSALLY RECOMMEND IT, AND IS SUPERIOR TO ALL OTHERS FOR THE FOLLOWING REASONS:

1. The wire is manufactured entirely from steel, which has a relative strength of 50 per cent. greator than of any common iron wire. 2. The only steel wire barb. 3. The only barb that cannot be displaced with thumb and finger or cattle's horns. 4. The only barb with prongs projecting from between the twisted wire and cannot be bent, broken or rubbed off, and never needs replacing. 5. The only coiled barb with broad base on main wire, which renders it immovable. 6. The only barb wire during process of manufacture its strength is tested equal to that of two-horse power. 7. The only barb put on with machinery. It is not pounded on with hammer and indented in main wire to hold it in place. 8. The only barb wire you can lay 80 rods or more on ground and drag with team and not injure or displace the barbs. 9. The only barb wire that gives nivers al satisfaction and has greater sale than all of ers put together.

JONES, GIVENS & CO.,
Pacific Coast General Agents, Sacramento, Cal.

Manufactured by WASHBURN & MOEN MANUF'G CO.



LOOK!

ALBERT E. BURBANK, importer and breeder of Fancy Fowls, Pigeons, Rabbits, Dogs, etc. Also, Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,
43 and 44 California Market, S. F.

TRADE MARK.

CALVERT'S CARBOLIC
SHEEP WASH,
$2 Per Gallon.

After dipping the Sheep, is useful for Preserving Wet Hides, Destroying the Vine Pest, and for Disinfecting Purposes, Etc.

T. W. JACKSON, S. F., Sole Agent for California and Nevada.

ANGORA
ROBE and GLOVE COMPANY,

San Jose, California,

Capital Stock, $50,000.

C. P. BAILEY, President, J. LEWIS, Secretary.
J. W. HINDS, Treasurer.

DIRECTORS:—C. P. Bailey, J. W. Hinds, Jackson Lewis, C. H. Lapham, Return Roberts.

Manufacture, from Angora Goat Skins,

FURS FOR ROBES,

Mats, Robes, Gloves, Etc.

SMITH & WESSON'S

New Model. 38 Calibre. Central Fire.

With **Automatic** Cartridge Ejector



NOW READY.

For **convenience, power** and **accuracy,** it is *unequalled.* If your merchant does not keep them, order direct from the Agency, *79 Chambers St.* New York, **M. W. Robinson,** Gen'l Agent.

DAVIS & SUTTON,

75 Warren St., New York,

Commission Merchants in California Produce.

REFERENCE.—Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A. Lusk & Co., San Francisco, Cal.

50 **Visiting Cards,** with your name finely printed, sent for 25c. We have **100** styles. **Agents Wanted. 9** samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

Prices Reduced. FARMERS, ATTENTION. **Prices Reduced.**

"Eureka," "Sweepstake" and Centennial "Iron Clad" Gang Plows,

Manufactured Expressly for

BAKER & HAMILTON, - - - - San Francisco and Sacramento.

10,000 Now in Use on the Pacific Coast.

Extra Parts are all Interchangeable.



The Cheapest and Best Gangs in the United States.

"EUREKA" GANG PLOW, WITH FIN CUTTERS.

No. 1.—"SWEEPSTAKE" Steel Gang, with two extra Points—Wood Beams..... $ 85 00
No. 3.— Ditto, with 5-16 Steel Mold and Cast Steel Points, two extra Points—Wood Beams.... 90 00
No. 5.—Centennial "IRON CLAD" Moline Bottoms, two extra Points—Iron Beams..... 85 00
No. 6.—Hill's "EUREKA" Star Moline Gang two extra Points—Iron Beams..... 100 00
No. 7.—Hill's "EUREKA" Steel Gang, with 5-16 inch extra Hardened Molds, Cast Steel Points, with two extra Points—Iron Beams..... $100 00
No. 8.—Hill's "EUREKA" three Gang Plow, with three extra Points..... 120 00
No. 9.—Hill's "CHAMPION" Deep Tiller One Plow Sulky, no extra Points, cuts 14 to 16 inches, Made to Order.
Fin Cutters, - - - - - - - - $2 50 per pair.

The above mentioned Plows are the Standard Gang Plows of the Pacific Coast, and are manufactured by the Sweepstake Plow Company, San Leandro, Cal. They are simple, durable, painted and finished off in first-class style, and none but the most skilled mechanics are employed in their manufacture. There are thousands of them now in use on this Coast, and giving entire satisfaction.

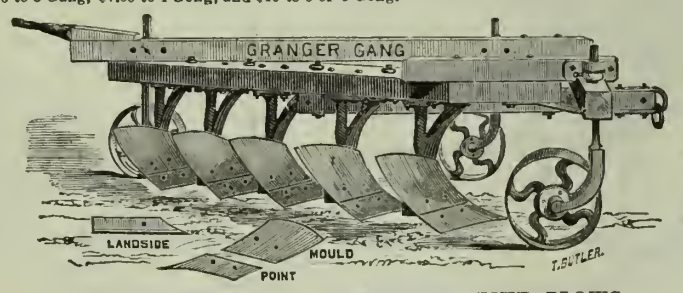
If you want a Gang Plow that you can depend on giving entire satisfaction, buy one of the above.

"Granger" Gang Plows.

No. 11. 3 Gang, 8 inch..$56. 9 inch..$58. 10 in..$60.
No. 12. 4 " 8 " . 67. 9 " .. 70. 10 in.. 75.
No. 13. 5 Gang, 8 inch..$75. 9 inch..$80. 10 in ..$85.
No. 14. 6 " 8 " .. 80. 9 " .. 90. 19 in.. 90.

All with 2 Castor Wheels in Front, and extra Points. The Woods are clear Oregon Pine. For Oak or Ash Woods add $5 to 3 Gang, $7.50 to 4 Geng, and $10 to 5 or 6 Geng.

2 Gang, 10 in.....$50.
All parts are made Interchangeable
Indispensable to the Economical Farmer.
Every man his own Blacksmith.



Simplicity, Durability and Cheapness Combined.
Extra Molds $3.
Extra Points, $1.00 $1.50.

THE GRANGER GANG PLOW, WITH FIVE PLOWS.

Chisel Cultivators, With Wrought Standards, Thoroughly Braced,

The Sweepstake Plow Co. make of Chisel Cultivstors is acknowledged to he the best ever invented. All the parts are made interchangeable, and are easily repaired. Each tooth is calculated to stand the strain of six horses.

4 Horse 7-Tooth Chisel Cultivators.....$ 75
6 " 9 " " " 85
8 " 11 " " " 100
10 " 13 " " " 110

These Cultivators ere made of the best Herdwood, expressly for

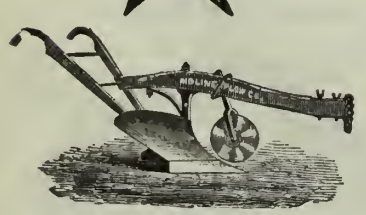
BAKER & HAMILTON,

SAN FRANCISCO or SACRAMENTO.

STAR MOLINE PLOWS.

We are the sole agents on this coast for the celebrated Star Moline Plows. They are made Extra Hard, elegantly finished, and the only Plow which scours in every soil found in California and Oregon. Parahasers should see that each Plow is branded on the beam with a Bright Red Star, and our name over it. There are numerous cheap sheet steel Moline Plows offered, which are nearly without merit, excepting the name "Moline."

Many of the Plows are iron which are sold for extra hardened steel, and purchasers should see that they are not imposed on by any imitation The Star Moline Plows have been tested for the past four years, and found to wear longer than any other, draw much easier, and scour in any soil. The reputation of the Extra Hardened Star Moline Plow, as sold by us, has been so great that the demand for them has induced numerous manufacturers to flood the State with sheet steel imitations. Caution is therefore necessary in buying Plows—see that all have BAKER & HAMILTON on over the Star.



STAR MOLINE PLOW.

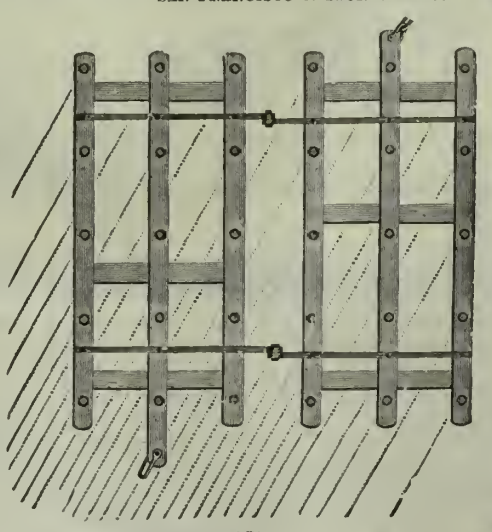
SIZES AND PRICES.

No. 8¼ Slip Share, cuts 9 in. $8 50
" 8 " " 10 in. 9 00
" 7½ " " 11 in. 14 50
" 7 " " 12 in. 15 10
" 6 " " 14 in. 16 00
" C 7 Scotch Clipper Slip Share, cuts 14 in.....17 50
S No. 1 Cast Steel, 12 in.....19 00
S No. 1 Cast Iron Beams.....22 00
These Plows have Steel Lands.
High Landsides.....$1 00 extra.
Fin Cutter.....1 50 "
8-in. Gauge Wheel.....1 75 "
Rolling Coulter, 12 in.....$6 00
" 14 in.....6 50

Castor Coulter.....$8 00
16 in. Extra Breakers.....40 00
18 in. " " 45 00
20 in. " " 50 00
22 in. " " 55 00
24 in. " " 60 00
Two-Wheeled Truck for Breakers..... 18 00

12 in. Gruh Breakers.....$35 00
14 in. " " 37 50
16 in. " " 40 00

The Extra Breakers have extra share Rolling Coulter and Gauge Wheel.



Single Shovel Plow, Wood Beams.....$7 50
Double Shovel Plow, Wood Beams.....8 00
Double Shovel Plow, Iron Beams.....9 00
Single Shovel Plow, Iron Beams.....8 00
Three Shovel Plow, Iron Beams.....$12 00
Subsoil Plow, with Gauge Wheel..... 22 50

We keep full stock Moline Points, Beams, Handles, etc.

Oliver's Patent Chilled Plows.

No. 20 cuts 11 inches, $19.

No. 40 cuts 12 inches, $20.

The metal used in the molds and landsides of Oliver's Chilled Plows, is the only material in use adapted to all kinds of soil It is the hardest, most dense and finely-grained metal used in the manufacture of plows, and will receive the highest degree of polish. It will not corrode. The heaviest coating of rust disappears almost as soon as the plow enters the soil, leaving it as smooth and bright as when last used. The process by which it is made insures a uniform degree of temper, and we warrant every mold and landside sold to wear twice as long as any steel or metal plow in market.



"GEM" AND CAHOON SEED SOWERS

Price List of Seed Sowers.

No. 1 "GEM," to run with chain and bevel gear..... $35 00
No. 2 " " " belt..... 40 00
No. 3 " " all geers..... 50 00
No. 3 only made to order.
CAHOON SOWER, to run with chain..... 25 00
" " " all gears..... 40 00
" Hand Sower..... 10 00

The GEM throws the seed the same as if thrown by hand. It sows on *either side* of the wagon at pleasure. It saves the price of itself over any other Sower in one season. In commencing to sow, one-half of the grain is not wasted, as you can close one slide and sow *only* on *one side*.

HARROWS.

30 Tooth Slat Harrows, ⅛x1½ Teeth..... $16 00
36 " " " " " 18 00
42 " " " " " 20 00
48 " " " " " 22 50
56 " " " " " 25 00
64 " " " " " 27 00
72 " " " " " 30 00
90 " " " " " 35 00
100 " " " " " 40 00

Manufactory, Sweepstake Plow Co., San Leandro.

All these Harrows are made with Plate Hinges running across the top, and are Mortised Slats, and are made of the very best seasoned timber.

We have other *sizes* and *styles* at greatly reduced prices.

Address BAKER & HAMILTON, San Francisco and Sacramento,

IMPORTERS OF ALL KINDS OF

FARMING IMPLEMENTS HARDWARE, ETC.

LIBERAL DISCOUNT FOR CASH ON ALL ORDERS.

PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, NOVEMBER 11, 1876. [Number 20

Alfalfa Seed.

As has been noted before in these columns, the crop of California grown alfalfa seed is very short this year. The market prices tell the story. Seed which was quoted last spring at 13 and 14 cents for first quality is now held at 20 and 22 cents. There was an early prospect for a large crop, but the crop never came. There was a general failure, almost like a blight in its wide spread area. Supplies are now so short that there is but little to be had from Sacramento, and our city seedsmen find themselves unable to fill orders at anything like the prices which they quoted to their customers a few months ago.

The increase of the demand for alfalfa and the fitness which it is displaying each succeeding year as a valuable forage crop on widely diverse qualities of land, seem to us to warrant more attention being paid by our farmers to the seed as a special crop. The seed has been hitherto a minor consideration among alfalfa growers. After drawing what they needed from the fields in the way of hay or pasturage, they have devoted the remnant to seed. The condition of the market, showing the liability of second and later growths to fail of good seeding, suggests the importance of some producers, at least, setting apart the early and surer growth for the seed market. In most cases it will be found that the earlier growth will produce a larger and better quality of seed and the surety of a crop will be sufficient reward for the undertaking. The production of the seed, where the farmer is conditioned for it will be found profitable, and a wise effort to produce seed of superior quality will not fail of a reward.

The shortage in the crop of native seed this year will turn the attention of large purchasers to the Chile seed, which is now quoted at a range of 8 and 13 cents. In Chile the crop is grown largely for the seed, and instead of harvesting the remnant, as is common with us, they cut the crop at the time of the strongest seeding, and doubtless this year they will profit by our importunity. We hear from different parts of the State of preparation of large acreages of new land for alfalfa, and the plant is evidently advancing to a more important place in our farm economy.

The Rainfall.

The importance of the rainfall in our agriculture warrants careful record of its area and amount. From all available sources we have compiled the following table, showing the precipitation at the places named for the season up to Nov. 1st:

PLACE.	COUNTY.	INCHES.
Martinez	Contra Costa	2.41
Vallejo	Solano	2.76
Colusa	Colusa	4 72
San Jose	Santa Clara	1.17
Napa	Napa	8.45
Santa Rosa	Sonoma	6.20
Stockton	San Joaquin	2.14
San Rafael	Marin	7 35
Nevada City	Nevada	10.46
Woodland	Yolo	3.54
Oakland	Alameda	4.99
San Francisco	San Francisco	3.76
Sacramento	Sacramento	3.01

AMERICAN FORESTRY.—We have received the following from Prof. H. H. McAfee of Ames, Iowa: "At a meeting of the American forestry association, at Philadelphia, September 15 last, its organization was fully perfected, and it becomes my duty as secretary to ask you and other friends of the forestry interest to aid the association in the accomplishment of its objects by an active co operation. You can become a member of the association by sending your name and address, with one dollar membership fee inclosed, to H. H. McAfee (secretary), Ames, Story county, Iowa, and you can aid our work by forwarding to the undersigned any information or statistics you may have in regard to forestry in your section. Members are entitled to the publications of the association." We think there is a fine field for the labors of this association. Its work should be forwarded by the organization of tree planting societies in States and counties, and then a national society would be of value in summarizing the progress of all local societies.

The "Beurre Coit" Pear.

Our illustration shows a native American pear which has gained a good record. It was originated by Col. H. H. Coit, of Euclid, Cuyahoga county, Ohio. The report of the department of agriculture says it "is of such excellence as to deserve a place in all collections," and Downing gives it a good name. The following are the descriptions of tree and fruit:

Fruit.—Size, above medium. Form, obtuse pyriform; slightly angular. Color, rich brown russet, mostly overspreading a yellow ground, with a brownish red cheek in the sun. Stem, rather short, with an occasional lip-like at its junction with the fruit. Cavity, shallow, with unequal projections. Calyx, with segments nearly erect, surrounded by depressed, crescent shaped furrows, in a shallow basin. Core, small. Seeds, blackish. Flesh, yellowish white, melting, buttery, juicy, sweet, vinous. Season, last of September and in October, in the Eastern States.

Tree.—Hardy, vigorous, upright grower, becoming spreading as it matures, with dark brown shoots and broad waved leaves, with rounded serratures. The tree is productive, and comes early into bearing on the pear roots.



THE "BEURRE COIT" PEAR.

HUXLEY'S VISIT.—Prof. Huxley, says the *Technologist*, was most pleasantly treated during his recent visit to this country. The railroad presidents gave him palace-car journeys without price, and for each of his three lectures at Chickering hall he received $1,600. He was also offered but declined $500 for his address at the opening of the Johns Hopkins university. He carried back to England as the result of his few weeks' visit the agreeable sum of $5,000.

Bananas.

The experiments in banana growing, which we have noted from time, seem to be resulting in successes. Of course there is a large field in the home market for this fruit. The latest experience which comes to us in this line is that of Rev. H. H. Messenger, which is described in the Los Angeles *Herald*. It seems that Mr. Messenger, on the 28th of April, 1875, planted 220 bulbs, about the size of an average onion. That was just 18 months ago, and already 100 of these trees are in fruit. The *Herald* examined one of the trees brought in by Mr. Messenger. It was a vigorous tree, and on it hangs a bunch of 45 bananas, in various stages of ripeness. The flavor of the fruit is excellent, not being surpassed by that of any of the tropical countries whose bananas we have eaten.

Mr. Messenger tells the *Herald* that, in a few years, Los Angeles county will be covered with banana trees. "The profits of their culture are large, and now that it is definitely established that they will flourish here in perfection, with ordinary care, our people will start to growing them by the hundred acres. We confess we were surprised when Mr. Messenger informed us that the shoots which sprang up during the winter did finely and are now bearing fruit."

LIEUTENANT MCCLERNAND, of the Second cavalry, and topographical engineer of Gibbon's command on the Yellowstone river and Big Horn, has made a survey of the Yellowstone river, and a report on its adaptability to steamboat navigation. The report has been forwarded to Washington.

Results of Irrigation.

While the problem of irrigating the San Joaquin valley is being discussed with words and surveyors' instruments, it is well to have evidence of the practical results which can be gained by the artificial gift of water to the soil. It cannot be doubted that as the schemes progress it will be found nearly as great an art to use the water wisely as to secure it. It is becoming clear that, in some parts of the State at least, there must be a system of drainage to remove the surplus water. On all soils which are not located so as to enjoy a natural drainage this need will be felt. The latest items of experience in this direction we find in a letter from C. L. Peterson, of Borden, which is printed in the *Bulletin*. He says:

The irrigation has, during this season, made a wonderful effect both on soil and climate. The surface water has raised all over my land from 15 to 17 feet, and I now reach it at four to seven feet on any place on my land. By a thorough cultivation the moisture will rise to the surface the year around. This it did all the past summer and produced a heavy dew every night—not merely on the slough, where we have had water all summer, but a mile or two away, where there had been no water since last winter. Although there has been a good deal of disappointment regarding winter irrigation in this settlement, I am satisfied that has arisen from our ignorance of this, a new system of farming; and I am positive that it can and will be made perfectly successful as regards small grain, and will in the future have to be practiced, as during the winter we have always plenty of water, while in the spring it may possibly fail in some season, though we have no reason to expect it from our past experience. I irrigated a great portion of my land during the heaviest and coldest rain of last season, when my grain was very young; and I found that whenever I drained my land immediately after it had covered the surface, it was a success; but whenever I left it to remain on the land 10 or 12 hours it injured the plant, or at least stagnated its growth and turned it more or less yellow. By having a system of drainage connected with the irrigation, winter irrigation must prove a success for small grain, and it should be practiced by every one so as to fill the earth up beneath with water when there is plenty. Nature has also given us a hand in tree planting. As you probably noticed when here last, millions of willow and cottonwood plants have come up along the sloughs and ditches. Besides the future value in wood, this will undoubtedly aid in retaining moisture both in the land and the atmosphere. I have the second crop of wheat nearly ripe; it is from four to five feet high, and with full good heads. I have the second crop of potatoes ready to use, grown on the same land as the first potato crop, since the middle of last February. Mangel wurtzel beets, planted last June, weigh over 20 pounds each.

MAMMOTH SWEET POTATOES.—The history of the wonderful in this State's vegetation is not yet written. Novelties recur in growing glories. We have received from J. Heel, of Bakersfield, Kern county, the following: "There is on exhibition at the store of Geo. B. Chester, of this place, six sweet potatoes of the variety of the Southern Queen, which weigh 115 pounds. The largest weighs 22½ pounds; the next in size, 22 pounds; and the smallest, 14 pounds. They were grown on the ranch of Dr. L. D. Stockton, 12 miles south of Bakersfield. Three of them, weighing 22 pounds, 21½ pounds and 18 pounds, will be forwarded to night to Jackson & Maude, real estate agents, 513 Montgomery street, San Francisco, where they can be seen at any time. I am told by parties acquainted with the growth of the sweet potato, that they are the largest ever recorded. They are well worth the trouble of going to see. If any one can beat the weight of these, we would like to hear from him."

PRESIDENT GRANT has accepted an invitation of the Centennial commission to assist in the formal close of the exhibition on the 10th inst. He will be accompanied to Philadelphia by the members of the cabinet.

CORRESPONDENCE.

Wayside Notes—Part 2.

[Written for the PRESS by FRANCES H. McDOUGALL.]

Sabbath morning in the wilds—and such a Sabbath morning! The wide cathedral, pillared with mountains and arched with the heavens, was consecrated and made worshipful by the sweet spirit of gentle and loving Nature; and as I sat there alone in the great silence, I caught the breath of prayer and praise, for the whole air seemed full of rejoicing souls. The songs of retiring stars still lingered, and they touched the chords of the springing light with thrilling sweetness. O! it is grand—it is glorious—when Omnipotence is unveiled as a palpable presence, to know and feel this intense trust in the All-Powerful. The arms of the Infinite enfolded me, and my head rested on the bosom of that Almighty Love,

"Whom we call God and know no more."

The sweet spirit of the morning lingered with me all the day, brightening the barren, easing the hard, uphill way, and softening the descent of frightful declivities; and toward evening we draw near a

Broad and Beautiful Valley,

Set like an emerald basin high up among the mountains, being no less than 6,651 feet above the level of the sea. Away in one corner of this immense area, which we were long in reaching, lies the little town of Bridgeport, where the son of my escort lives; and we find kind reception and shelter for the night. These high valleys are too cold to produce anything but grass, and consequently are devoted to stock raising and dairy purposes. We passed one large dairy of 75 cows, where the churning is all done by water power. J. W. Kingsley, whose hospitable home we visited, permitted us to go through his dairy house, and see the working of the beautiful system by which these gigantic operations are so smoothly carried forward. Everything in the milk rooms and cellars is kept with the most exquisite order and neatness, the proper degree of warmth for ripening the cream being secured by stove heat, and indicated by the thermometer. But the great mystery to me is, why they do not make some cheese, instead of all butter. There is never an overplus of cheese in our interior markets, and in all Inyo, and probably Mono, we couldn't get a bit of cheese big enough to eat with a cracker. Cheese always commands a high price, besides being so much more easily kept and transported.

Amid the Mountains.

We left Bridgeport with a large accession to our camping party, and for the first time began to look the bristling Sierras directly in the face. Before they would advance or recede, now suddenly shooting across our path, then stretching wide away as if bound to broaden the horizon. But now there was no dodging, and they had to hold still, while we absolutely entered the terraced portals of their dark domain. And through all these high mountain passes, from the first to the last, I was utterly overwhelmed with a sense of grandeur. I did not stop to ask if the scenes of Yosemite or Niagara had higher claims. I did not think of Alps or Appenines. It was enough that the whole consciousness was full and overcharged with a sense of the sublime, to which all artificial language is but a poor interpreter.

One evening, I remember, our road was along the extreme edge of a narrow canyon, the deepest and most beautiful I ever saw. Hundreds of feet below, a pent-up river was madly dashing through the gorge, and along its course a small growth of willows, poplars and other deciduous trees, now touched with the frost, blossomed like golden flowers amid the somber green of the lordly pines. The fascinated eye could not resist the charm, though it froze the blood to look down into the depths of that awful chasm, around which the road wound complacently, as if it were a mere commonplace, and not composed of the elements of high tragedy.

These mountain forests are by far the finest I have ever seen; for I have not yet been permitted to behold the Big Trees of California. And when in the early morning light I woke from the sweet sleep of my carriage bed, I looked up toward the summit of those wonderful trees, that seemed to support with stately stems the great arch above, and to open the pillared portals of another, a grander world.

Yet amid all this love and veneration of the beautiful and the sublime, come allied thoughts of the material and the useful. These mountains might supply the whole State with lumber and fuel; and they would do so if transportation were made cheap and easy, as it must be some day; for in the common course of progress of things, this great want of the people will and must make itself felt and heard, in spite of executive vetoes.

Only a few

Noticeable Spots

Came to my knowledge in the transit. Strawberry valley derives its name from the extensive crops of wild strawberries which it yearly produces, while the vines furnish the principal food of cattle and sheep in that region. In the midst of the Sugar pine forest is heard the shriek of the engine and the buzzing of the busy sawmill. Bradford & Way have extensive works near the Long Barn, supplying some of the great San Joaquin valley with building and fencing materials, also the foothill range of Tuolumne and Stanislaus and Merced counties. There are some three or four mills in active operation, giving employment to a large number of men and teams.

Occasionally may be heard the dull and heavy sound of quartz mills, as they crush the auriferous rock, giving signs of civilization in the midst of primeval solitudes. Northup's station is the first comfortable inn on the whole route from the summit. The landlord is justly famed for his accommodations and good fare; and from this point the lines and signs of civilization become more apparent, in a continuous fence along the roadside, and the frequent appearance of comfortable homesteads indicates our approach to

Sonora,

Which terminates the mountain road. This lovely little town, like all others in the county, is languishing for want of a railroad, by which its immense wealth in wood and lime is kept out of the market, or, by the heavy expense of transportation, held at inaccessible prices, and thus also its immense capacity of fruit culture is held inert. Great efforts were made at the last session of the legislature in favor of a railroad to connect with the Central Pacific; but the governor met the enterprise with a veto; yet the people clearly enough see that a road is necessary, not to Tuolumne alone, but to Inyo, Mono and even the more remote counties. And if the mines of Inyo command the prominence they are fast attaining, her enterprising citizens will make the initial movement in these important proceedings.

Once more back in dear old Tuolumne, to find that this year she has surpassed herself in the rich and varied fruitage of her foothills. The enormous product of her orchards and vineyards may be measured by one instance: Mr. J. Dickinson, of Shaw's Flat, has raised and cured upwards of four tons of apples, and in the course of the season has marketed 4,200 pounds of strawberries and the same of blackberries.

Here at Mount Pleasant, the home of your gifted correspondent, John Taylor, I fold my wings and rest.

Description of Santa Cruz County.—No. 4.

EDITORS PRESS:—If, while we have been passing down the mountain with our whole attention occupied with the wild scenes on our right, we had turned our eyes to the left, rather, we would have seen, immediately below us, and seemingly within a stone's throw of where we stand, the canyon of Bean creek, heading above us near Charley's, filled with "deep, tangled wildwood," and extending in the same direction that everything else this side of these mountains does, oceanward. A ridge of the mountain breaking from the main summit above Charley's house, and running under it and the little lake near it, continues down, first in a southerly direction, and then bearing gradually to the right it finally reaches the crossing of the creek by an abrupt turn to the west. This ridge separates all the waters of the Soquel from those of Bean creek, and it forms the segment of a circle of which Bean creek is the chord. About one-third of its length is grassy, and is interspersed, both on its top and sides, with little groves of deciduous oak. The remaining portion, to its end, is either covered with brush, or bristles with tall redwood, in some places depressed and in others rising rugged and high. Looking over this ridge and far beyond, are glimpses of the Salinas valley, the lower part of Monterey bay forming the foreground, and the high Monterey mountains beyond, the background of this distant picture. A nearer one, but still beyond this dividing ridge, to the left, is that formed by the Los Gatos mountains. Beginning far down where the Los Gatos swings wide her mountain gate they rise, and gradually approaching Prieta's dark form, they suddenly soar and attain Mt. Bache's third grade elevation among the mountain sentinels of the Pacific, then faltering and falling away towards the ocean, they separate the waters and give them direction on either side, as, these waters flow into the Soquel or into the affluents of the more distant Pajaro. In most all this picture vast forests prevail, relieved only occasionally with a little farm perched on some high table-land, and looking like a yellow spot on a vast surface of varying green.

Half way down this watery chord, Bean creek canyon widens into a considerable valley, forming the site of the old

Bean Ranch,

And now owned by C. C. Martin of Santa Cruz. This place was settled by John Bean, who crossed the plains from Missouri in 1847, but located here in 1851. The ranch extends both sides of the creek to the hills which enclose it. To the east the land is level for 40 or 50 rods to the house at the base of the first rise, after which it rises 100 feet or more, and then stretches east and south by gentle rises until it reaches the higher hill; so to the west, it also rises with easy ascent from the water to the foot of the hill. On this side, hundreds of feet above, and almost hanging over the valley, the mountain road makes a sudden approach as if it would leap the precipice into the valley below; when turning suddenly to the right, it whirls almost in a circle around a jutting point, then starts off and along the side of the cliff to where the thickening forest affords an easier way.

Mr. Bean built the present house and turned the trail from the ridge now traversed by Charley's road by his house and up the ridge of the Soquel (the segment) to Charley's house as before. His object in locating here was to establish a half-way house between Santa Cruz and Charley's, where pedestrian or horseman could get his dinner, a comfortable feeling and an assurance that if he should afterwards meet banditti on the way, he would have less *pesos* to be relieved of. Besides, this half-way feeling (half-way in distance and not in quantity) induced the belief that the after way was less rugged than before. This was one of the earliest schemes for *internal* improvements devised in this part of California, and it gave direction and permanence to future action— at least in this direction, including both up and down the mountain.

Mr. Bean was the first man that ever hauled a wagon over any part of this mountain trail, and this he did, not on its own wheels, but the separated parts on the backs of mules, although I believe Mrs. Farnham, in her book of "Early Days" claimed to have taken over this road a wagon and an "Irishman" before this exploit of Bean's. But I have been told by trustworthy persons, besides the implied confession she makes before she finishes the history of the feat—that the wagon was a "skeletonized abortion" bearing the name, and that the Irishman brought Mrs. F., the wagon, and himself over a part of the way on his own shoulders (not Mrs. F. nor himself, but the wagon). Therefore, as Bean's was a "bone fide" wagon and carried by mules, and not by an Irishman, which I think the more proper way, and should give it some kind of precedence, I am disposed to reiterate my assertion of priority in Mr. B.'s case.

About 1868 the place was bought by

Isaac Carver,

And Mr. Martin, present owner. The turnpike having been built previous to their purchase, and by it having easy access to the place, these gents enlarged their improvements and cultivated quantities of hay and grain. Subsequently Mr. C., selling his interest, went to South America, where he has ever since resided. Mr. Martin has, by his many and varied improvements, made this one of the valuable ranches of this county. He has also purchased all the territory above him, comprised within the arc and chord before described,

The Los Gatos narrow-gauge railway is surveyed through this ranch, and no doubt will cross the summit at "Taylor's pass," and then running along the south side of the summit until a suitable place is reached to pass to the ridge between Bean and Soquel creeks—which latter creek is entirely avoided by passing above and around all its tributaries—it will follow this divide and pass through Vine hill, Scott's valley, on to Santa Cruz; or passing down Bean creek after crossing this ranch, either continue down this creek and then to Felton, or else passing over the ridge just above the turnpike crossing of Bean creek, reach the Zayante creek, and thence to Felton by the way of that creek.

Grizzly bears and lions were formerly abundant and very troublesome around this Bean ranch, and with the narration of an incident illustrating the sporting tendencies of the early days, we shall close the present article, and in our next give "Scott's valley and its surroundings."

A Bear Story.

About the time of which we have been speaking, Mr. Martin was employed to keep the toll-gate at the old station near his ranch, and Mr. Carver, thinking it would be more pleasant to do so—although working on the farm—made his home with him. One summer morning before breakfast, finding it necessary to look for a cow which they milked, Mr. Carver put on his coat and started for the ranch. But as he approached one of his fields of grain, he heard the agonized squeal of one of his hogs, some distance out in the grain.

Jumping up on the fence for a better view of the scene of distress, and to learn its cause, he discovered what he supposed to be a dog, watching the operations of a canine friend engaged in whetting his teeth in the soft posterial parts of the unappreciative swine.

Mr. C., feeling a little sympathetic just at this moment, ("a fellow feeling makes us wondrous kind, etc.") shouted indignantly, and at the top of his voice, "git out!" Whereupon his dog No. 2 "got up," and presented to his astonished gaze the greased and bloody visage of a female grizzly, who had been gnawing her breakfast from the live sides and back of the protesting pig—intending some of the choice tit-bits for her respectful offspring, who constituted dog No. 1.

Our friend, thinking he had fully performed his duty, began to "git down," and just at this moment, remembering that he had forgotten something of importance at home, started immediately for it. But the grizzly, observing Mr. C's. movement, and the quickening of his pace, misinterpreted it as a banter for a foot race. Having breakfasted, she of course felt in good trim and soon reached the fence for the purpose of getting an even start with C.

Being somewhat careless in getting over it, the noise attracted the attention of C., who, now in his turn, saw what he took to be a banter to run a race. He being naturally a tall and plucky man, and concluding that he wouldn't go home just then, began to look for a fitting goal at which to end the race. Finally he descried an oak tree with a limb projecting from its side about 13 feet from the ground, and standing on a round point a little way up the mountain, and outside the valley. Looking back towards the bear and signifying his acceptance of her challenge, he began to unbutton a pea-jacket, which he thought would impede his progress, pulled it off and derisively threw it at the bear and started at the top of his speed for the oak.

Mrs. Bruin, at first disposed to resent the supposed gratuitous and unnecessary affront on the unoffending coat, upon second thought concluded to waive all minor considerations and bend all her energies to the race before her. Now, both get down to their work; for both are determined to win. Now, lovers of the turf could have seen—if they had been present—every style of running and all degrees of speed. It was, to say the least, an unique race and an advance on anything which had ever been attempted here before. But Carver, having the lead at the start, kept it pretty well till the home stretch, which was up the hill, when grizzly began to make decided gain.

The betting changed sides and began to be heavy for grizzly. But intelligence is always an overmatch for brute force—and shying to the right and taking the hill at a less angle, C. came to the oak in fine style—while grizzly—too honest to jockey, came in a little behind. Neither party being quite satisfied with the result, concluded to do the home stretch over again, and starting off in a circle around the point a little below the tree, Carver was so determined to win that he would not run fair, but getting the inside track—knowing that grizzly's greater weight would carry her far down the hill—he, by an unscrupulous *coup de main*, dashed in ahead again and was the first to reach the tree.

Being somewhat elated in mind he proceeded to raise himself into the tree, as this would relieve him from the pressure of the congratulating crowd, and afford him an opportunity to recover his wind, as he felt a little blown.

The bear, coming in soon after, was revolving the matter in her mind and trying to understand how the whole thing had been done.

Mr. Carver had overestimated his power of ascension, and, like Dedalus of the old story—who staid out too long one hot day—came down and into the very face of the bear, who, forgetful of her own defeat, had reared on her hind legs, intending to give C. a friendly "boost." Of course this last movement of C.'s was expected to both, and required from C. some explanation; and to stave the matter off and gain a little time for consideration before he gave any reasons, he pulled the hat from his head and jocosely thrust it into the bear's face, and cried out with a loud voice, "Bah-h-h!"

To the bear, this was the crowning act of C.'s eccentricity. She stepped back a little to see what would be the next movement, nor did she have to wait long, for, C.'s excitement increasing with every fresh advantage, he made another spring for the limb, and if it had been 20 feet instead of 13, he would have vaulted to it.

Now the whole matter began to open up in a new light to the mind of the bear. She had been mistreated and duped, and feeling an inexpressible contempt for Carver's pusillanimous conduct, she left the place in utter disgust and slowly retired up the mountain side after her already-departed offspring. C., sitting and resting awhile, looked down over his ranch and discovered that he had found the most interesting point from which the place could be viewed. But recollecting that Mr. Martin would wait breakfast for him, he tore himself from the entrancing view and returned to his home. C. N. W.

Watsonville, Oct. 23d, 1876.

East and West—No. 5.

(Written for the RURAL PRESS by PHILMORE.)

What should we do without matches? Matches are of little account. We often burn them for the fun of it, nor stop to think of what would have been the value of a single match 50 years ago. "Did you come for fire?" was an old saying if a visitor was in haste; and the meaning was significant, for it is scarcely beyond the memory of the middle-aged when neighbors borrowed fire from each other, and sometimes, in the country, allowing the fire to go out was attended with serious consequences. The writer has often heard his mother tell how a woman sent a colored girl to a neighbor's one mile away for fire. It was in mid-winter, and the cold and storm was severe. The family waited until they feared something had befallen her, and then determined to go in search of her. They found her about half way on her return, with the blackened brand in her hand, crouched beside a tree, frozen stiff. The spark in her went out with the brand she carried. What would all the smokers do without matches; and think of the revenue the government receives from matches alone, to say nothing of what it does not receive which it is entitled to. For years the fire was not allowed to go out in old New England country homes. The last thing the farmer did was to "rake up" the fire, which meant covering it up with

ashes, next to what was called the "bsck log," where it wonld be fonnd bright aud glowing next morning.

An old-fashioned fire-place wonld iudeed be a curiosity in those days of fnel-saving stoves and patent ranges. Those fire-places, with pot hooks and trammels, a great beam of wood up in the chimney above the highest possible blaze, from which dangled iron hooks and chains enongh to have snchored a ship. Often the front of the opening would be eight or ten feet, and in by the side of the fire, which was at the bsck, was a grest stone oven that wss heated once a week and turned out a good snpply of brown bread, puddings, pies and cakes. Wheu the large families were broken np and bnt oue or two were left to keep guard over the old hearth stone, the old oven was made a receptacle for rubbish or ashes that were selected and saved for soap. The ashes from hickory wood were the best. Soft soap was made iu the following manner: Four good, stout, crotchet sticks were driven into the ground, upon which were put cross sticks or boards, upon which was placed the barrel for the ashes. In the bottom of the barrel was a little straw, and then a layer or two of sassafras or other fragrant wood, and then came the ashes; then the water was poured in and the leacbing began. Such lye, so fragraut, so purifying and so penetrating, and then the adding the "soap grease" and a good stirriug aud the soap was made! And such soap! We cau smell the clean clothes that were washed with it, now after 40 years. We have little such in these modern days. In fact, there are very many of the old comforts and enjoyments thst we then had that are denied us now. What have we to boast of iu our country homes in this great aud bountifnl land? Some few have everything thst art or wealth can produce, and live head and shonlders above their neighbors, or fellowmen—seldom neighbors. Snch are uot expected by the plow to thrive, since they neither hold nor drive. But they have "a house in towu" and a "country seat," and all of the comforts and lnxuries that they have iu the city they expect in the country. Many of the poorer farmers have scarcely a chair to sit upon and scarcely any dishes to use. Tbey raise no vegetables, have uo fruit, plant no shade or fruit trees, make no butter; in fact, keep no cows for milk, but buy from the more thrifty sud iudustrions neighbor a mile or two away.

Such are two kinds of farming in this country. The one entirely ornamental and experimental, spending five times ss much as is produced on the place and making a pleasant but expensive country home. The other neither ornamental nor useful nor rational, skinning his acres year after yesr, his crops growing less and less, and he poorer and poorer, running in one chaunel as naturally as water runs iu the gutter. No rotation of crops, uo saving of manure, no fruits, no flowers, not anything attempted but *grain, grain, grain;* and if that fail, he fails also. And yet this has been, aud to a great extent is, California farming. Let us have a chauge.

A Wine Press—Alfalfa.

Editors Press:—Until the psst three months onr vine growers did not know what to do with their immense grape crop. The old cellars were filled with former crops, and the low price of wine did uot seem to justify the further purchase of cooperage.

But the new Santa Rosa wine company went to work with a will ss late as September, built a honse 100 by 100 feet, put up an engine house and machiuery as if by magic, aud began to run at the crushiug rate of over 40 tous a day. The compauy is payiug $8 per tou for Mission, and $15 for better sorts. A dozen wagons are usually waiting their turns to unload, though the boxes are handled rapidly by four men, and pass through the crusher as fast as unloaded.

Underueath the crnshing plstform are several square tanks which receive the macerated grapes. The jnice, not yet wine, escapes by a pipe from the bottom into a small tank, from which it is pumped through long pipes into the different bins, which are quite large enongh for youug people to commence honse-keepiug iu. The residuum, or pomace, is shoveled iuto other immense casks, where it drains. Then it is passed throngh a hydraulic press, extracting the last drop before it is thrown away.

The enterprise is a good one for the company, and, thongh $8 per ton is poor pay, it is a god-send for the farmers, who hardly know where to get money to pay taxes. The company will doubtless feel warranted in paying more next year, as they are sure of doing well with this vintage.

The rainfall for October was 6.25 inches. In the history of Sonoma county it is said a fall of oue inch for this month was uever knowu. I do not, however, vouch for the story.

Alfalfa.

The field of alfalfa sown by Josiah Davis, October 26th, 1875, of which I gave you some account last spring, had a battle royal with fenuel and tar weed during the summer. But it was mown twice to kill the weeds, and now it is ss fine, thickly set sward of alfalfa as can be seen auywhere. It is common black soil of the valley, raised without irrigation.

J. B. A.

Santa Rosa, Oct. 31st, 1876.

The Dairy.

The Dairymen's Association—No. 5.

Butter Making.

The snbject of butter making was bronght before the association at the evening session of the first day, with the following essay by T. B. Craudell, of Point Reyes.

Butter Making as an Art.

A. Willard, in his admirable work, entitled "Practical Dairy Husbandry," bas truly said thst cheese making is a science and that butter making is an art; and cbiefly ss an art wonld I attempt to treat the subject in this paper, for I can only give my own experience, which, however, has extended over a series of some 15 years.

This snbject has been so frequently discnssed iu the vsrious public prints, as well as the numerous able treatises written by competent and well-known authors, that it would seem as if the subject had been already exbausted, and anytbing I might say would be hackneyed and simple repetition. Much has been done by the constructive ingenuity of the people during the last 50 years iu the making of churns, butter workers and otber dairy implements, and adapting powers to simplify and expedite the means for reaching the end desired—a good article of butter. The theory and practice, so far as known, has been handed down from parent to child, the prsctices varying according to necessary circumstances, snd more often because of some peculiar notion or crotchet of the individual. One would have you scald all the milk as soon as drawn from the cow, before being "set" for the cream to rise; another wonld have yon place the milk, soon after milking, into cool or very cold water; another would have you pass the milk through some cooling apparatus, preparatory to its being set; and still another would require you to strain st once into shallow pans, setting the pans in a room where the temperature is kept at about 60 or 62 deg. Fah.

Of the especial merits of the deep setting process, using cold water, I leave my estimable neighbor, Mr. Claussen, who has successfully followed that plan, to inform you. I follow the shallow setting process, using the common pressed pans, holding about six quarts, and settiug them npon rscks arranged around the sides of the room, and I endeavor to keep the room at a temperature of about 60 or 62 deg. Fah.

Upou the ranch which I lease are kept 250 cows. These are divided into two or three bands, kept separate by fenced fields or pastures. We use the precaution common among experienced dairymen, of

Carefully Driving and Handling

The cows, while driving them to and from pasture and milking in corral. Necessarily we are obliged to use such feed as the pastures produce, yet this is of good quality and generous in quantity most of the year. During the fall and winter we feed some beets, and, as should be, furnish barns to feed the cows in, and for the storing of hay to feed them with, ss well as shelter through stormy weather.

The time which the milk is allowed to set depends somewhat upon the temperature we sre able to maintain iu the milk room, but usually it is allowed to remain about 36 hours. It is then skimmed and the cream churned within 24 hours thereafter.

All the dairymen upon Point Reyes use the revolving box churn, that being considered the best for all purposes. The cream when skimmed is put into cylindrical tin cans holding about 10 or 12 gallons and kept in the milk room until ready to be churned; this maintains an even temperature of 60 deg. Fah.—and right for churning.

To keep the house, milk aud cream vessels

Perfectly Clean

And dry, is of all importance.

Having uow secured for the cows and their milk the best possible conditious, the next important step is the

Making of the Butter;

And as a proof that the true principles iuvolved in the making are but poorly understood, the large quantity of poor butter to be found in the market is sufficiently convincing. This has been made poor from waut of atteution to one or all of the following particulars: It has been kept too long before being skimmed; worked too much and so made salvy, or too little and marbled; the buttermilk has uot been separated from the butter, and it soou becomes cheesy, or some other of the many mistakes thoughtless or unskilled persons are apt to make.

Light, air, temperature and handling are all efficient agents, aud must all have proper and due attention in the productiou of good butter.

Requisites for Good Butter.

We prefer a room, as before stated, where the temperature csu be maintained at about 60 or 62 degrees Fah. We desire it to be well ventilated and to have a much modified light, easily regulated by using blinds.

Having allowed the milk to stand uutil it begins to sonr, we remove the cream and churn witbin 24 hours of the skimming.

As our milk room is kept at the right temperature, the cream is also right for churning, which is of the utmost importance, as tbis determines in great measure the textnre and keeping qualities of the butter,

In churning we are careful to secure a uniformity in revolution of the chnrn.

As soon as the butter begins to separate from the buttermilk, we begiu the washing process, as tbis we think the best time to secure this all important end, for butter to keep well must be thoroughly freed from the buttermilk, and this can only be done well by washing before the butter begins to msss or gather in the churn.

Having churned the butter, which nsually reqnires about three-fourths of an hour, we take from the chnrn, and place upon the butter-worker, Allen's patent, and there wash again to obtain absolute freedom from buttermilk; we salt at ouce, using three-fourths of an ounce per pound.

After thoroughly working in the salt, we let it stand for two or three hours before molding, avoiding with jealous care over-working. It is then laid away on shelves to cool and harden before clothing and putting in boxes for market.

After Mr. Crandell's essay, another was read by Mr. H. Claussen, on the advantages of deep setting, which we will print next week.

Sheep and Wool.

Selecting Rams.

A recent number of the *Agricultural Gazette* (Englisb) contains an article from which we make the following extract: "Science has been brought to bear upon the selection of parents in order to procure the best results. Tbe close inter-breeding prscticed by the esrly breeders of both sheep and cattle was no doubt greatly due to the fact that they were unable to find anything good enough out of their own herd or flock. To resort to lower blood was not to be thought of; to find better or higher blood was impossible, and, therefore, they were compelled to risk inter-breeding. No doubt they viewed it as risky, and yet the result showed that on the whole they were justified. 'When Ketton ceased to procreate,' wrote the late Mr. Bates, as rendered by Mr. Bell, '* * * I saw no way of restoring the pnre Duchess blood but by putting the 3d Duchess to her mother's own brother, Duke (226).' Evidently he saw objections to the course (which resulted in the birth of Earl), but he wss subsequently fully satisfied with what he had done. Happily, in breeding sheep there is more choice; and although some flocks have been long bred with but little change of blood, the number of excellent studs now available should encourage a less jealous policy.

"Considerations regarding blood must be regarded as of first magnitude. It is a matter of congratulation that iu sheep breeding pedigree sud merit go hand in hand. Your crack Leicester or Shropshire breeder relates with pride how this particular sheep is own brother to the first prize at Birmingham or Taunton, sud son of a first prize sheep at Wolverhamptou or Manchester. He challenges you to find a fault in the quality of his mutton, the set of his fleece, the character of his head, or his general symmetry. He rests his claim for the purchaser's esteem upon the purity of his blood, faultlessness of his make, and the greatness of his achievements. All this is highly satisfactory, and contrasts favorably with the extraordinary double standard of merit now existing in tbe minds of Short Horn breeders. It assists us much in selecting a ram, for it enables ns to repair to the best men, and by personal judgment to select the best auimal, which means the best auimal for producing lambs, abounding in mutton, wool, constitntion, thrift, aud all other qualities for which sheep are kept.

"It scarcely seems necessary to miuutely describe all tbe indications of quality to men who are fully scquainted with and alive to them. We may, however, be allowed to point out that strength of constitution is very valuable, and hence the importance attached to a masculine head and a bold, high carriage in sll male animals. The same indispensable quality is shown by the wide chest and liberal spread of ribs which enclose the vital organs. Muscular power not only shows an auimal to be healthy, but it is in itself an end, since muscle is lean flesh. Muscular development is nowhere better illustrated than in the neck; hence a tbick neck is a great point, and one easily tested by spanning it. Good loins, good leg, and a square outline will be insisted upon, as will also countless smaller points not necessary to further specify. Too little attention is given to wool, which is itself a study. A certain conventional type of fleece is certainly insisted upon, hence we hear of a 'bold curl,' or 'lashy' fleece, and the wool is discussed according to its 'curl' or its 'set'. It is, however, doubtful if many sheep breeders have a clear idea as to what is wanted by the manufacturer, and endeavor to meet tbose requirements. Abundance of wool they certainly value, and hence in selecting parents, a well wooled head, or a well wooled purse, legs, aud cheeks, are all esteemed as indicating a disposition to grow wool.

"Lastly, rams should be selected with a view to correcting faults in the females. This sectiou of the subject is probably less simple than it at first sight appears. As a rule, a bad, low neck, will be corrected by a good neck; a weak fleece by a strong oue, etc.; but it is, nevertheless, true that two highly-crested canary birds throw occasionally bald birds. Also, Mr. Hewitt, speaking of Laced Seabright bantams, says that 'why this should be so I know not, but I am confident that those that are best laced frequently produce offspring very far from perfect in their markings, wbile thoseexhibited by myself, which have so often proved snccessful, were bred from the union of heavily laced birds with those that were scarcely sufficiently laced.'

"These facts are exceedingly curious, and appear to militate against too general acceptance of the doctrine that like begets like. We are not, however, awsre that any similar experience has been gained by the breeders of ordinary live stock, unless it be in the matter of color."

The Vineyard.

Wine Making in Los Angeles.

Editors Press:—Few persons but those engaged in the business have any idea of the vast importance to the business interests of the State of the manufactnre of pnre wiues in California.

In the palmy days of '49, meu would sqnander immense snms of money on champagnes and other foreign wines, most of which, by the by, were shockingly adulterated by the tricksters of London, England, and elsewhere, but very little gennine—Port wine especially—having been allowed to leave the cellars of the London docks, whose extent can be imagined by nothing short of uine acres; tbe fnngus plants which grow in very damp places there suspended from the ceilings, appear like large umbrellas, many of them being from three and a half to four feet in diameter, and four to five feet long in the stem or handle.

By a parlimentary report published some 30 years ago, it was asserted that there was more Port wine drnnk every year in the city of London alone thau was imported from the city of Oporto, the natural inference, of course, being that the balance of the world was supplied with logwood juice; and it was uot very far from the truth. So bad, indeed, was the Port wine usually sold that it was fast coming into disuse, and the very fine medicinal virtues of the genuiue article were being lost to the world. My experieuce was first called to the virtue of California wine by the surgeon of the old *Moses Taylor*, in which I and my family were passengers from Nicaragua some 10 years ago. He told me he knew of notbing likely to save my wife's life but good Port wine and toast. I had no ides, at the time, that I could obtain any genuine Port wiue, but ou applying to the steward he gsve me a bottle of Messrs. Kohler & Frohling's wine, for which I paid him $5 in currency, and ou tastiug it was surprised to find how vastly superior it was to the so-called imported Port. With it I was able to bring my wife alive to this port, while another lsdy similarly troubled, who refnsed the professed aid, sunk four days after landing.

Being in the place where such fiue wines were made, I naturally become interested iu witnessing the *modus operandi* of the wine mannfacture. I found there were several large wineries which manufactured 100,000 gallons of wines from their own grapes, and one or two which manutactnred much more from the grapes of their neighbors; the total product for 1875, as I showed in my previous letter, being uo less than 1,328,000 gallons, one of the principal houses being that of

Messrs. Kohler & Frohling.

On visiting their place I was cordially welcomed, and invited to examine iuto every detail. They have only 17 scres of vines, bnt purchase very largely from surrouuding vineries. This being the hight of the wine season, numbers of wagons were engaged in bringing the boxes of grapes to the press, where they are thrown into a hopper and fall between two rollers, where they sre crushed, and the lnscious juice flows into a barrel snnk iu the ground, whence it is pumped into monstrous casks of two or three thousand gallons capacity, where it is allowed to settle, and then drawn off into other barrels and shipped in due season to market. It is highly appreciated by the medical facnlty of London, Berliu, aud other places, where a pure article has long been required, but could with difficulty be obtained.

I saw large gangs of uative Indians picking the grapes, and was pleased to see that every berry seemed ripe and souud. It appears that in Europe a large uumber of grapes on a bunch will be diseased or nuripe, but here they were all perfectly ripe and sonnd.

I had heard some very unpleasant descriptious of wine making, and was delighted to fiud no such practices prevailed here; every part of the process was perfectly and cleanly done.

The daily consumption of grapes by Messrs. Kohler & Frohling was between 150,000 and 175,000 pounds per day.

I was informed that of 22 vintages this firm had only suffered a partial loss of one crop by frost.

Messrs. Kohler & Frohliug mannfacture several varieties of wine, principally Port, Sherry, Angelica, Hock, Muscatel and Claret.

This firm also manufactures a large quantity of very fiue brandy, having a still imported from France of very ingenious aud iutricate

Continued on Page 322

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Grangers' Business Association of California—Notice of Assessment.

Principal place of business and Secretary's office, Grangers' Building, northeast corner of California and Davis streets, San Francisco, Cal.

Notice is hereby given, that at a meeting of the directors of the Grangers' Business Association of California, held on the 31st day of October, 1876, an assessment of two and one-half dollars ($2.50) per share was levied upon the capital stock of the said corporation, payable in gold coin of the United States, to the Secretary, Amos Adams, at his office, No. 40 California street, San Francisco, Cal., on the 10th day of November, 1876.

Any stock upon which this assessment shall remain unpaid on the 30th day of December, 1876, will be delinquent, and advertised for sale at public auction, and unless payment is made before, will be sold on the 17th day of January, 1877, to pay the delinquent assessment, together with the costs of advertising and expenses of sale. AMOS ADAMS,

Secretary of the Grangers' Business Association of California; Office in Grangers' Building, 40 California street, San Francisco, Cal.

Rates of Subscription.

Secretaries of Granges and Farmers' Clubs, (and all reliable farmers and subscribers of the PRESS) are hereby authorized to make up clubs, of five or more names, at $3 each, per annum, in advance.

☞ No Agents or Secretaries are authorized to receive subscriptions at less rates than $4 per annum except in clubs of five or more, strictly cash in advance, yearly subscribers. Any arrearages that may accrue on club subscriptions will be charged at full rates.

Copies of the Constitution and By-Laws of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

Grange Directory.—A full list of Subordinate Granges, Masters and Secretaries, of California and Nevada, is published as often as once a quarter in this department. See issue of Sept. 23d for latest insertion

P. of H.—Subscribers who pay fully one year ($4) in advance for the Pacific Rural Press can receive the California Patron *free*, or other premiums. See our premium list in another column.

The Grange and Its Values.

We make room this week for a few paragraphs taken from a stirring address recently delivered at the anniversary of the establishment of Rincon Grange, No. 227, by Bro. H. C. Brooke, W. L.

The improvements and inventions of the past few years have entirely changed the status of the farmer, they have completely changed his relationship to the outer world. It now behooves him to rouse to action. Organization in some shape has become a necessity to that condition, hence the Patrons of Husbandry is but the child of necessity, and followed as a natural consequence of a want, and of a want too, felt by the farmer some years previous to the organization of the Order. This fact is evidenced by the various attempts made by him to improve his calling and condition by association.

In this connection I might mention the agricultural society. This, although ostensibly a society in the interest of the farmer, has accomplished but little if anything for the farmer; being confined to the mere locality in which it was situated, in its operations, under the entire control and management of but a few of its members, called the "Board of Managers," meeting in general assemblages but once a year, having no particular business aim or purpose; what is the result? The annual exhibit of some few mammoth pumpkins, some few extraordinarily tall corn-stalks, some of the finest fruits culled from some of the finest orchards in the section, a heterogeneous mass of rare vegetable curiosities of no earthly use to the farmer, gratifying the vanity of a few, at the expense of the many. At these annual exhibitions of county agricultural societies, as a general thing, two hours spent in leisurely passing from table to table is sufficient to "do up" the eight-seeing—then the interest flags; then centres on some dozen or two race horses and fancy stock; then comes the main performance, which has been all the time the main instrument in calling the crowd together,—the *race*. Money is wagered, many hundred dollars "change hands," and of course one-half of the participants leave the fair with high spirits elated over good luck and happier fortunes in *guessing* the right horse; the other half disappointed, chagrined, with depleted pockets and sore hearts—but this last episode is the *exciting* part of the exhibition in behalf of the interest of the *agriculturist*. As a finality, the whole concern, with all its appurtenances thereunto belonging, is passed over to a few horse jockies and gamblers, and—exit the agricultural society. I will mention, as another evidence of the necessity for organization on the part of the farmer is his interest, and of the fact that he *felt* this want.

The Farmers' Club.

We read a few years ago of the farmers' club being established in most of the counties of meaningless way, and, likely, wound up their proceedings by adjourning for a supper, and, probably, sometimes a *spree*, and—exit the farmers' club. But, I think, these attempts served a purpose. They served as the forerunners of the more complete and perfect

Order of P. of H.

This great Order has its National Grange which meets at regular intervals; it has direct communication with each State Grange, which, in turn, has frequent and direct correspondence with each Subordinate Grange. It has its agents everywhere all over the country, direct access to every seaport, every great inland center of trade, where railroad transportation or river navigation connects, to a great extent directing the movements of grain and live stock, in fact, everything the rural laborer has to produce, and thereby, to a great extent, controlling the markets and advancing the prices in favor of the agriculturist. You have in your Order an agent by which you can most unquestionably better your condition in a pecuniary sense. But let me tell you one truth, that agent will be effective just in accordance with, and just in the degree to the use you make of it.

But there are

Other Advantages,

Other benefits to be gained from your Grange besides that included in a mere pecuniary, money-making sense. I could not pass this subject and omit to bring them to your minds.

1st. The Grange may be made an effective means to improve the farmer's intellectual welfare. Heretofore all great movements having for their purpose the general welfare of the community have rested in the hands of the town folks; they, living in communities, naturally have their debating and literary societies, their Masonic, Odd Fellows and other lodges; and their public assemblages are of frequent if not nightly occurrence. This necessarily educates, trains and practices the town-raised individual (who takes advantage of the opportunity offered) in the method and manner of conducting business where numbers meet, each having a common purpose to work out, and each seeking by uniting individual effort into one compact, united whole, working as one man (yet holding the controlling power of numbers) for one and the same end.

The farmer, (and this applies especially to the Rincon district) being remote from towns and cities, has heretofore been deprived of this privilege. The Grange offers a most excellent and complete instrument to supply this deficiency, if the farmer will but take advantage of the opportunity offered. To my mind it is infinitely superior to the debating society or literary institute. When man seeks by uniting forces to gain an end, certain rules of order are necessary to govern and unite the whole. All men are not constituted alike; nay, I will assert, no *two* men are exactly alike in mental capacity. This explains the reason why that, when men are brought together for a specific object, although the whole mass may sympathize and agree as to the main purpose, yet there will be conflict of opinion as to the method, manner or ways and means. Hence, Cushing's Manual has been generally adopted as the authority on rules of order for deliberative or legislative assemblages. The Grange is superior to the debating society as a school, for the reason that, partaking of the nature of a secret society, the forms and rules are necessarily more strictly applied. Another reason: Questions are always arising in the Grange, calling for debate and interchange of opinion; but, unlike the debating society, they are questions having a real purpose in view, and the issues joined are real live issues, not mere abstract questions having no practical end. As to literature, our formulas, our ritual furnish us with metaphor and simile without end, which if we study and practice upon carefully and with attention, cannot fail to improve our literary taste and refine our minds. To the young man who is ambitious of bettering his condition as he advances to riper years, no better school of theory and practice is offered.

As a Social Organization.

Heretofore the farmer, from the very nature of his pursuit, has been to a great extent a "stay at home" individual, having but occasional intercourse or association with his neighbors or society at large. Very frequently in rural districts, communities by the force of circumstance are thrown together, coming together from all sections, differing in opinion, in mode of thought, manners, ways of living and of doing things. This necessarily begets to a certain extent antagonism. None of us are perfect, but when one man regards as just and right and correct, another sees in just the reverse light. This naturally begets prejudice. You all no doubt have looked through the spy glass. You know that when you look through the small end distant objects are not only magnified but apparently drawn nearer to us; when we reverse the glass, end for end, objects which are in reality closer in hand appear away off in the distance, and so reduced that they are scarcely distinguishable. In the imperfection of our natures we are apt to see in our neighbors, first their faults or foibles, or what we regard as such, and I fear very often exaggerate, magnify, and they very often appear nearer to us than they really are, and we allow them to annoy, worry, vex us; while their virtues we either fail to see at all, or, looking through the big end of the glass in our mental vision they appear away off, some scarcely discernible. How frequently do we meet individuals whom at first sight, mere superficial acquaintance, we the State; as a general thing they met in the county town or some important town in the district, adopted a constitution and code of by-laws, elected a president, secretary and treasurer, etc. What was the result and final fate of these associations? Having no particular definiteness of purpose, having no direct communication with the centers of trade, or, at most, a very imperfect one, probably talked over the state of the weather, and condition of crops, and general prospects ahead in a vague, dislike, but the more we come to know and understand them, new virtues rising to our view, we put them down as not so bad as at first sight, and finally we learn to like, if not to love them. I remarked before, none of us are perfect, we all are liable to slips, mistakes, and sometimes to "go wrong." Let us endeavor—so far as reason will bear us out—to throw the veil of that most blessed charity over such, and hope for the better. I believe there is a bright side to almost every character. There is always room for hope. When we are thrown into contact with him who is comparatively a stranger to us, we know not what disappointed hope, what trial or trouble may have overtaken him, embittering or souring his temper, and for the moment prompting the uncourteous reply, or the unkind remark; we should make allowance, because:

> "For us all some sweet hope lies,
> Deeply buried from human eyes:
> And in the hereafter, angels may
> Roll the stone from its grave away."

The Grange presents the opportunity for the assemblage of country neighbors, for the interchange of friendly and social feeling, for neighbors to become acquainted with each other, and if a proper use is made of it, cannot fail to make neighborhoods more united in sympathy, in feeling and in effort.

On Education.

The following is a reply made by E. C. Burch, W. L., to the question on education brought up in Pescadero Grange at a recent meeting:

In making a few remarks on the subject of education, as brought up in our Order, I intend to be true to my own convictions in relation thereto. To my mind the most vital and self-evident truth of all the stories of antiquity is the story of man's fall. Without the fall there would be no knowledge from which to construct the moral of life. Now that we are down it becomes the first object of life to get up. Much of the logic now in use in relation to getting up again has so long possessed the chair that it will perhaps be thought an affectation of novelty in me to suspect that rules that have served the learned world the past years of her history are not sufficient to guide the understanding in all future years. I feel quite certain that this will be censured as vanity or presumption. In bringing up the subject, it was thought best to put the question in accordance with the growing demand of the times. It would be vain to palliate or attempt to disguise this matter. It is always necessary that the means that are to accomplish an end be equal to the accomplishment of that end or the end can not be accomplished. Therefore the question is,

"In What Shall Education Consist

To advance the best interest of mankind?" I answer truth, more truth. But what is truth? says the jesting inquirer, and will not stay for an answer. If you will give me your sober attention for a few moments, I will try to tell you in what I think truth consists in relation to this matter, allowing you all indifference to my opinions, not wishing you to take what I say as truth any farther than the evidence in the case, and that alone, gives the attestation of truth. I think that all will agree with me that the truthful relation that education holds to the world of mankind is to advance matter and mind to higher degrees of perfection and happiness. The relations of matter and mind are such that progress will be looked for in vain. While obeying the laws governing one, we neglect to obey the laws governing the other. The effort to advance is the product of moral reason, the opinions of all who hold reason at a liberal discount to the contrary notwithstanding. There is a design in this. It is action founded upon cause and effect; "the ax at the root of the tree." Let us now inquire, what is the first development for and of

A True Education?

My answer to the inquiry is simple, natural, and, I think, reasonable. It is a material body perfect to the adjustment of an atom, residing in it a harmonious mind, duly impressed of entire symmetrical proportions, a sense of self-harmony. Accompanying this most perfect and beautiful of all rudimental sensations, is an intuitive perception of the natural laws of life, a simple, clear understanding of what should constitute a correct action. How to live so as to secure the general order and harmony of one's own existence is the first simple natural and reasonable consideration. To preserve material and spiritual health, so as to enjoy material and spiritual wealth, spontaneously flowing from the inexhaustible repositories and treasuries of nature, is the constant and central study of a duly balanced mind. The highest regard for personal happiness, the simplest means for its attainment, the natural privileges to which body and mind are ever entitled, are correct subjects of contemplation and desire, and a due amount of care thereto is prescribed by the interior sense of self-responsibility. And seeking a harmony of objects and forms presented in the wide spread fields of nature, combining all enjoyments with labor, science and art, doing nothing to disturb but everything to augment the harmony of material and spiritual existence, are the ceremonies and sacred obligations imposed upon mankind as growing out of and associated with a true education.

From the depth of the mind within will be evolved a sweet conception of our creative father, tinting every thought with celestial beauty, inspiring it with immortal aspirations, and the admonitions growing out of the sentiment within is, at first "know thyself," and answer with integrity and fidelity all demands enjoined by personal justice, by obeying all the natural laws of life, in rightly using every individual endowment.

Therefore the first development of a truthful education is to know thyself. Now that we have developed the first degree, may we not ask what will be the second degree of development? I answer: The comprehending the material and spiritual relations and unity of its self-hood and harmonious relationship which should subsist between every man, and the sacred ties that should inseperably unite and constitute of the whole a brotherhood. That a friendship may subsist between all classes and that each may live in reference to the interests of the whole, are the unfolded sentiments of the internal and true education. Therefore it is made distinctly manifest that the oft-repeated saying "love thy neighbor," is nowhere else appropriate or practically applied or made use of but in this stage of educational development, where it becomes the spontaneous sermon "do unto others as you would have others do unto you." Hence the second development is fraternal love.

If it is asked, what is the third and highest development of a truthful education, I reply, that after understanding the laws of nature and the unchangeableness of their operation in personal and general existence, the mind adopts principles of righteousness and urges their application, when all social relations of mankind will be investigated, classified and harmonized. Prompted by justice, each one will study her or his physical and mental qualifications, their fitness and relative attractions, the one to the other, as well as to the nearest or most distant neighbor, and a voluntary, spontaneous unity will be the result.

A truthful education, being thus above everything, descends to all departments of human life and action, uniting agricultural, mechanical and commercial interests, guaranteeing to every inhabitant of earth land privileges and home comforts. A suitable home and appropriate tract of land secured to each individual according to his actual want and capacity to cultivate and improve well, with well constructed edifices for the accommodation of all, will be the church and charitable institutions of the true education. "That time to come and that will to be done on earth as it is in heaven," is to be worked out through the exquisite harmony which is represented in the general structure of the body and mind. Accompanying this idea is a knowledge that a relationship and correspondence subsists between all world forms and existence in being. That the Lord God Omnipotent reigneth is the fixed and growing conviction.

This education has always been urged for our acceptance by our divine father and master. It was the high estate our primitive father and mother fell from, and our restoration is to be found nowhere else but in that direction. To develop this education we must be free—free from all prejudice. Let nothing impede primary operations. First, know thyself; second, love thy neighbor; third, be truthful and just to thyself and others. I feel this to be the true but unloved education.

Grange Halls.—Grange halls should everywhere be used to elevate the profession of the farmer. In what more appropriate place can a good circulating library be kept? If there are a hundred members, and each contribute one book, there are a hundred volumes at once, and these can be increased as time goes on. What better place for a good debating society, or farmer's club, or arbor club, than the Grange hall? What better lecture hall than the Grange room? By all means use it for the intellectual and moral and social elevation of the farming profession. A moot legislature or congress could be organized, with a full set of officers, and laws passed, and thus the farmer be educated as a law maker.—*Hoosier Patron.*

Grange Meeting.—Editors Press:—An open Grange meeting will be held in Santa Clara, on Saturday, 18th instant, at 11 A. M. Blakie Pilkington, Worthy Lecturer of State Grange of California, will address the meeting. All farmers are specially invited to attend.

I. A. Wilcox, Master.

Santa Clara, Nov. 6th, 1876.

"We are having revivals all along the line, with a knowledge of what the Order wants." Thus writes Brother Jones, Master of the National Grange. There is the true spirit of advance manifested in every direction. Lift your banners high.—*Hoosier Patron.*

Cardinal Antonelli, the eminent friend and counseller of the Pope, is dead. During the political power of the Pope, Antonelli was either the Pope's prime minister or chief adviser.

Agricultural Notes.

California.

ALAMEDA.

Livermore.—*Enterprise*, Nov. 4: Our roads are in excellent condition, and many of our farmers have commenced plowing.

Fire in San Leandro.—*Transcript*, Nov. 3: About two o'clock yesterday morning fire was discovered in the machinery department of the Sweepstakes plow factory in San Leandro. The belting and a large portion of the machinery were destroyed. The new fire company organized in the village prevented the building's being totally consumed. The cause of the fire, originating as it did in the machinery room, is supposed to have been accidental. The factory is owned by Messrs. Baker & Hamilton, of San Francisco, and, we understand, was fully insured. The total loss is estimated at from $2,500 to $3,000.

BUTTE.

Grain Lost.—*Record*, Nov. 4: During the heavy storms of last week, Dr. Glenn, of Colusa, lost 65 stacks of wheat, which was the balance of his enormous crop unthreshed. Mr. Gridley, of Gridley's station, also lost heavily through the same cause. It is seldom that at this time of the year such storms are seen, and consequently many of the largest ranchers were totally unprepared for the terrific rains that fairly deluged the valley in this neighborhood.

Early Rains.—*Mercury:* From all sides comes the cry that the rain has come too soon to be of any benefit to the farmers. On the black lands farming is suspended until the land becomes hard and dry enough to admit of being plowed and harrowed. As it is now, the harrow soon clogs up and nothing can be done. So far as we have heard, but very few men have got in their crop, having been delayed in trying to get their last year's crops to market. Notwithstanding the low price of grain this year, our farmers have gone to work with a vim and as many or more acres will be seeded the coming season as last year. Many of the fields on which a crop was raised last year will need but little seed this, for the wind threshed out more than enough to seed the land.

COLUSA.

Willows.—Cor. *Independent*, Nov. 4: Most all of the farmers in this part of the county are making valuable improvements, showing conclusively their general prosperity. Taking into consideration that this part of the country has been principally settled within the last seven years, we think it compares favorably in point of improvement with any other portion. There will be a greater area of summer fallow sown this year than ever before. Most all of the low hills west and northwest of the Willows were plowed up last spring and will be sown this fall. This will be the first crop that has ever been sown on them. Three years ago these hills were thought entirely unfit for cultivation and useful only for sheep range; but now, the fact of their being adapted to grain raising as well as sheep raising, they are quite equal in value to the very best valley lands, and decidedly more valuable than a great deal of the lands on the plains. They are desirable to live on because of the protection afforded by the hills on the north.

Leveeing.—*Sun*, Nov. 4: Messrs. Joseph McConnell, S. W. Randall and J. H. Rowland are having a levee built on the east of their farms to keep off the back water from Butte creek. The contract for doing the work has been let to J. P. Bainbridge. It will require an expenditure of some $6,000, but it will, they think, thoroughly protect their farms from overflow.

Fine Jack.—Wm. Billups, of Colusa, purchased the other day one of the finest jacks ever brought to this State. Gray Jack is five years old, was raised by W. W. Goddard, of Harrodsburg, Ky., and brought to this State by Geo. B. Payne. Mr. Billups was largely instrumental last year in bringing to the county a couple of thoroughbred horses. Those gentlemen who bring fine stock into the county are doing a good for the whole people.

FRESNO.

Death From A Rattlesnake Bite.—*Expositor*, Nov. 2: Last Saturday afternoon the body of a man named Charles McDowell was brought to this place from the Posa Chine for interment. McDowell had been engaged in herding sheep in that vicinity, and on last Friday went forth with a band of sheep as usual. During the day, in some manner, he had one of his hands bitten by a rattlesnake. He endeavored to suck the blood from the wound, but to no effect. He started for the camp and was finally discovered in a bad condition. Alcohol and whiskey were administered, but the amount at hand was not sufficient to stay the effects of the poison, and he finally died in great agony. McDowell was about 28 or 30 years of age.

LOS ANGELES.

Vegetable Growth.—Anaheim *Gazette*, Nov. 4: Swain's farm, situated about seven miles from Anaheim, directly west, and on the east side of Coyote creek, can truly be called one of the most prolific farms of California. I visited this place on Wednesday afternoon, and was astonished to be shown cucumbers measuring 17 inches in length by 12 inches in circumference, one of which I send that you may be convinced; others, and many, measuring 16x12; egg-plants measuring 20x22 inches in circumference; squashes weighing from 100 to 200 pounds; ears of corn from 10 to 16 inches in length and remarkably full and plump. Four hills of tomatoes have yielded about one bushel each, and are now as full as ever; castor beans yielding over one ton to the acre. The yield of potatoes has no end; they are raised all the year round. I must mention, also, a cotton plant which was planted late, an experiment, and which has received no care. This plant has now at least 25 and perhaps 40 bolls, on the eve of maturing. All the seeds of this are intended for planting next year.

Onions.—*News*: Wm. Graham, whose farm is situated three miles southwest of Santa Ana, has harvested 5,950 pounds of onions from a little less than one-half an acre of land. At the present market price, 2 cents per pound, this would give $119. Pretty good for half an acre.

MONTEREY.

English Pheasants.—*Index:* Our fish society obtained a pair of English pheasants with a view of stocking the country with those birds, and sent them to Tennant's station, a few miles this side of San Jose, where they will be well cared for. It is proposed to introduce other foreign game birds, such as quail and prairie chickens.

NAPA.

Wine Vinegar.—*Register*, Nov. 4: One of the interesting features of Van Bever's establishment is the vinegar manufactory, which is a comparatively new branch of the business with Mr. Van Bever, and which is managed by Mr. Stansbury. The process of turning wine into vinegar consists, in general terms, in exposing it to the air, and the object is attained by running it from cask to cask. The wine starts from a large cask or vat in the basement, and is pumped into a room above, where it passes through several casks, and comes back to the basement, and is again pumped through the casks. Running it through twice, which is done in a day, is generally sufficient for turning the liquor into superior vinegar. We tasted some and found it to be strong and good, too strong for table use without dilution. About 1,200 gallons are made weekly and a ready sale is found for it in the San Francisco market.

Squirrel Killing.—The work of exterminating the squirrels and gophers goes bravely on in Napa county, under the stimulus of the bounty law. The justices of the peace have the pleasure of counting the scalps. Justice Hartwell has counted something over 4,000 for Mr. Webster, and about that number for Mr. Hoey, both adding installments of 500 or 600 last Monday morning. The amount of money levied for the county fund this year is $5,400.

SANTA BARBARA.

Vegetables.—Lompoc *Record*, Oct. 28: Beans are turning out much better than any one anticipated. Many fields that were estimated to yield 1,500 lbs per acre are turning off 2,500, and some a ton and a half. H. D. Hammer, living on the mesa, says that he dug 90 potatoes from one hill grown on the mesa, 75 of which were good merchantable potatoes.

SAN DIEGO.

Sowing.—*Union*, Nov. 2: The farmers on the Cajon are already busy sowing wheat, at the rate of about 120 acres a day. The ground is in better condition for working than ever before, and more ground will be planted in wheat than in any previous year.

SAN LUIS OBISPO.

Heavy Frost.—*Tribune*, Nov. 4: Since the rain on Friday night last, the evenings have been exceedingly cool, and culminated in a heavy white frost on Wednesday night. Thursday morning the ground was quite white and the air of a decidedly boreal temperature. We have seen no ill effects from it thus far. It will only serve to hasten the dropping of deciduous foliage, but will not check the blooming of roses, callas, fuchsias and geraniums.

SAN JOAQUIN.

Plowing.—Stockton *Independent*, Nov. 3: The plowing season has begun favorably and the soil throughout the valley is in admirable condition for the work. Farmers are everywhere busily engaged putting in their crops for the coming season, and agricultural implement manufacturers and dealers are crowded with business in supplying them with plows. There is no article of manufacture for which there is a more general demand than the instrument for turning the soil. At every plowing season we feel like urging upon the farmer the principle of greater thoroughness of cultivation in order to ensure themselves good and unfailing crops. Experiments have been tried with sufficient frequency upon the black heavy land of this country to make it positively certain that subsoiling and deep cross plowing will not only render it moist and mellow through the season but prevent its ever cracking or crusting on the surface. We have no doubt that with the proper thoroughness in cultivating, vegetables could be raised throughout the driest season without a drop of irrigation. The theory of moisture in the soil being induced by pulverizing it finely has been thought to be that the cold soil below that is never affected by the heat of the sun, condenses moisture from the air. The upper soil being finely pulverized, the air is allowed to penetrate it to the cold soil below and imparts its moisture thereto. Moisture certainly does not come from below, and the theory of its being condensed from the air seems the only plausible one. With the good results of thorough cultivation as pursued by thrifty Eastern farmers, constantly before the agriculturists of this State, we hope the time not far distant when similar thoroughness will be the rule among them rather than the exception. Drouths may by laughed at and irrigation considered superfluous if by extra labor we may be able to snatch moisture from the air itself.

Mushrooms.—One advantage of the early advent of the rainy season is in the fact that it will soon bring that luxuriant edible, the mushroom, to market in abundance. We saw the first of the season at Browning's yesterday, and noticed that two different lots were shipped by the *Alice Garratt* to San Francisco. No country produces finer mushrooms than California, and they are highly esteemed by epicures.

Large Yield.—George West is driving the business of wine-making at El Pinal vineyard, near Stockton, with all possible speed, at the same time keeping his distillery in operation in the manufacture of grape brandy. His grapes this year are yielding better than they have ever done before, and the grapes are larger and of better quality. He stated, and vouches for the statement that he has picked 20 tons of grapes from 960 vines, or about one and one-third acres. These vines are the oldest of the vineyard and are now 16 years old, and standing up like great trees, with trunks from 15 to 20 inches in circumference. Mr. West's vineyard is unquestionably one of the finest in the State, and the vintage of 1876 promises to be the largest and best of all. To one who enjoys seeing grapes by the car-load heaped together in tempting piles, a visit to this vineyard would be quite worth his time and pains. The reputation of El Pinal vineyard and its productions is becoming so universally established, that a visit to it, such as we recently made, is of unusual interest.

Sowing of Wheat.—The question of the amount of wheat per acre that it is most desirable to sow to obtain the greatest yield, is one of as much dispute as that in regard to deep or shallow plowing, on which farmers are divided in opinion. Some prefer sowing one bushel per acre as quite sufficient, while others will put in two and sometimes three in order to have the wheat come up thickly and shade the ground to prevent the evaporation of moisture. An exchange has the following: "It is estimated there are from 600,000 to 700,000 grains in a bushel of wheat—say 600,000. There are 6,272,640 square inches in an acre. Using one bushel per acre there would be about one seed to each nine and one-half square inches. Suppose each plant to tiller nine or ten-fold—and it most certainly will under half-way favorable conditions—it gives one stalk or head to the square inch, which is many more than can mature under the most favorable circumstances. It is therefore plain that one bushel of good seed per acre is a superabundance. In sowing two we waste one, even though it does not decrease the yield."

SANTA CLARA.

Mr. Feeley's Grape Display.—San Jose *Mercury:* One of the finest exhibits of grapes at any fair this year was to be seen at our recent exhibition in a display by Mr. Feeley, grown three miles above the town of Lexington, in the Santa Cruz gap, on a steep mountain side some 1,400 feet above the level of the sea. The stock of Flame Tokay grapes from this mountain vineyard are nearly double the size of the grapes in the vineyard from which the cuttings are taken, while the flavor is fully as fine, if not superior. One bunch weighed six pounds, and the grapes were the size of plums. This vineyard is situated within the limits of what is known as the "warm belt," where there is an almost entire absence of frost, and where the grapes are never troubled by mildew. The belt extends to both sides of the Santa Clara valley, but for some peculiar reason the western hills and mountains are better adapted for fruit and grape growing than those on the opposite side. Although this valley is considered the home of the grape, and prices are at the very lowest notch, the products of Mr. Feeley's vineyard sell for almost double the regular price in the San Francisco market. His vineyard having been planted as an experiment, and it already having brought forth such excellent results, it is not improbable that a new departure in grape culture would prove most gratifying to those whose lands lie in the section referred to. The Santa Cruz mountains have for years furnished the lumber used by the inhabitants of the valley, and as fast as the redwood forests are cleared away the ground can be planted to vineyard and orchard. There are no little valleys, but if the soil will produce such grapes and such fruit and nuts as were exhibited, the day is not distant when it will pay to dig terraces in the sunny mountain sides and cultivate the vine and tree by hand.

SONOMA.

Utilize the Waste Places.—*Russian River Flag*, Nov. 2: John L. Rogers, who resides about three miles northwest of Healdsburg, on Dry creek, had on his farm a small piece of marshy ground, less than one-fourth of an acre, kept in that condition by the overflow of two small springs, which he decided to convert into a fish pond. He grubbed out the brush, cleared off the surface and threw an embankment across the ravine in which the marsh was situated, securing a depth of water of from three to five feet. He placed a board partition across near the center, intending to make the upper portion a breeding pond. The lower portion was stocked with about 2,000 small fish of the common varieties found in this locality, such as suckers, perch, pike, trout, etc., all of which are doing well and have made a fine growth, although but little more than a year in their new quarters. In April last he purchased 12 carp from Mr. Poppe, of Sonoma, at a cost of $5 each; these he placed in the upper pond, where they are growing and fattening on a diet of barley, corn, wheat and offal from the kitchen. Mr. Rogers expects the carp to commence breeding in the spring; in that event he will dispose of the common varieties, and use his pond entirely for raising carp. He is planting willows and several other varieties of trees on the margin of the pool, and in a few years expects to have this an ornamental and profitable addition to his farm.

Potatoes.—Petaluma *Argus*, Nov. 2: The potato digging season in this vicinity commenced about the 15th of last month, and is now going on vigorously. There was an interruption for a few days on account of the recent heavy storm, but Chinamen who have been engaged for service in this line by our farmers have arrived by the score every evening for the past two weeks, and now several hundred are at work. The digging season usually lasts two months, and closes about the middle of December. At present potatoes are arriving in town at the rate of 800 sacks per day, and 6,000 have been received up to date. In a short time, if the weather is not unfavorable for digging and hauling, thousands of sacks will be received daily. The area planted this year was a good deal larger than usual. The quality of the potatoes, the price and the yield per acre are about the same as usual at this season of the year. Most of those that have thus far been brought to town have been purchased by our merchants and shipped to San Francisco.

Items.—*Democrat*, Nov. 4: We learn from Mr. W. H. McNiel that hundreds of acres of corn and potatoes in Russian River valley were badly injured or destroyed by the rains of last week. Old grape growers say that the rains have done no material damage to grapes They have not been injured except the few bunches which lay on the ground. W. H. White, of Bloomfield, writes us that the rainfall there was the heaviest ever known in the month of October. From the 17th to the 27th six and a half inches of rain fell. The hills are green and the ground is in good condition to plow. The potatoes not yet dug are in a bad fix.

SUTTER.

Grain and the Storm.—*Banner*, Nov. 2: It was apprehended by many farmers and others that the unprecedented rain storm which visited this section last week would result disastrously to the large quantities of grain known to be deposited along the river banks and exposed to the elements, awaiting shipment to tide water. We are gratified to be able to state authoritatively, upon the reputation of a gentleman who has made a personal inspection of the vast quantities so exposed, that the damage will fall far short of what was to be expected. Our informant states that he has personally inspected about 2,000 tons within the past week, and the loss, in his estimation, will not average over five or ten pounds per sack. The upper tier of sacks generally are not wet more than an inch or two in depth, and the grain apparently appears uninjured, while the same exists in the lower tiers, with the addition of the sacks being sadly demoralized. Most, if not all, will require new sacks to make it marketable. When the increase in weight is taken into consideration the loss will appear even smaller than it is here represented. The difficulty of getting the unsheltered grain to tide-water, and the insufficient warehousing accommodations are the principal causes of any loss whatever, and our farmers should in the future throw aside their improvident way of "taking the chances" on early rains, and provide covering and shelter for every sack of grain prepared for market. Where warehouse accommodations cannot be had, and storage on the river banks has to be resorted to, canvas or tarpaulin should be prepared, and trenches dug around the grain to carry the surplus fall away from it. The expense would be trifling compared with the amount of damage likely to ensue every year from our early fall rains. We throw out the suggestion now, that our farmer friends may profit by it.

TULARE.

Flax.—*Iron Age:* Parties in Tulare county are preparing to go extensively into the business of raising flax.

Vegetables.—*Delta*, Oct. 26: And now comes the largest squash in the country. It is still growing on the ranch of Mr. N. H. Spencer, or rather his successor, near Grangeville, and would no doubt tip the scales at a little over 200 pounds. Its surface is smooth and bright, and the vine still fresh around it. In the space of a few rods may be seen about a dozen others, either of which would attract a crowd at the best agricultural show in the State. Fifty pound watermelons are no longer a subject of remark. One ranchman on Cross creek had several tons of fine, large ripe melons piled up near a big barn, as common feed for his stock—hogs, horses, cows and poultry being alike fond of them. We were recently shown a 20-pound red yam sweet potato, grown on Tule river bottom, and at the Grangeville hotel we also saw the red king yam of that locality, which was labeled 17 pounds. A gentleman who saw it measured, says that a pumpkin vine on the ranch of Mr. Welch, on Mussel slough, measured 42½ feet. Off one row of potatoes 40 rods long, Mr. G. W. Gordon, near Grangeville, got 610 pounds of sweet potatoes. One of them weighed 19 pounds. Mr. G. sold a ton off this patch, at Grangeville, for $30. He also gathered from 18 acres 740 bushels of corn, or over an average of 40 bushels to the acre. Welcome Fowler has a patch of about 50 acres which he thinks will go a little better.



Tears.

[Written for the RURAL PRESS by E. J.]

Silent tears of affection, wild tokens of sorrow,
From childhood to age by life's pilgrims are shed;
They fall on the innocent eyes of the infant,
And fall on the chill, pallid brow of the dead.

They come from emotion, from joy and from sadness,
To light-hearted youth and the stricken in years;
Yes, even in moments of triumph and gladness,
The bright smile of happiness mingles with tears.

The maiden, confiding in him she believeth
As changeless as stars that look down from above,
Finds them rise to her eloquent eyes as they brighten
In joyful response to the tale of his love.

Tears come to the bride love-light's glow has forsaken,
When shades shroud the hopes of the fast coming years,
When the first cruel words of unkindness awaken
The young heart's wild fountain of passionate tears.

In mercy, tears come unto all who inherit
The heritage won from life's shortening years;
For the worn heart of age and the young wounded spirit
Are soothed and relieved by the outburst of tears.

Merced City, Oct. 18th, 1876.

The Blessings of a True Home.

[Written for the PRESS by JOHN TAYLOR.]

As the years come and go upon silent wings, we are more and more attracted towards the divine surroundings of a true home, believing that attendant privileges and blessings are Heaven's choicest gifts to man, and a foretaste of happiness portrayed by inspiration. When peace and prosperity mantle the favored land we live in, agriculture and kindred pursuits are the leading avocation of the industrious. When homes are planted in rural simplicity, security and peace, even though shorn of many of the adornments of the rich man, love and domestic happiness flow around, and the dove of peace and contentment spreads its wings over the consecrated shrine; cottages embowered with clambering vines bespeak the happiness within. Above and beyond all, the guardian angel of virtue, consecrates the loving inmates with incense from purity's altar above.

Rural scenes of peace and domestic thrift are as a sweet flowing river, gathering strength and purity as it nears the ocean's depths; so with the loved of happy homes, the countenance of the patriarch glows with a heavenly radiance, brighter and brighter as it nears the shining shores of Summer Land. How happy when cheered in life's decline, to listen day by day to the innocent glee of merry children. The benevolent smile of old age gains in intensity under such influences Happy indeed the patriarch who sits in the domestic chair of honor and affection, enjoying the smiles of a tender and loving wife, amidst surroundings sanctified by law, human and divine.

If Heaven is to be found anywhere upon earth, it is in the precincts of a well regulated rural home. How aimlessly the man wanders through life when deprived of home and domestic affection. Rich he may be in worldly possessions, but the soul is as a barren wilderness, with here and there a flower to gladden the eye and heart of the weary traveler, but no garden may be found in all his daily surroundings. "Home is Heaven" to the old and the young, when planted in accordance with affection and wisdom. It is man's harbor of safety, and society's safe-guard for morality and virtue. It is a nation's foundation for peace, prosperity and the advance of art and science. In fact, home is the foundation of all civilized existence. It is the one universal star which is worshiped by all men. Even the Indian has his wigwam and wife sacred to his life, and woe to the intruder or despoiler.

How many foot-sore travelers wander through life without experiencing the pleasures of a home and the many blessings which are found around the domestic hearth. How many are afraid to launch life's bark on the sea of matrimony, because of the many failures to obtain the golden ideal. Better far is it to storm the citadel, capturing a whole dry-goods establishment, pin-backs and candle lectures to boot, rather than not secure a home and fireside, a prattling child to educate and rear to manhood, a wife to love and be beloved, a farm to cultivate or a garden to bloom in fragrance and beauty. If we are heirs to a home in the eternal world above, where flowers immortal bloom, we should show our appreciation of the boon conferred by creating a home in mortal life, typifying that which will endure for aye, as the spirit home in spheres o'erhead is only a step higher in our ascending life towards perfection. Although our little doves pass away while yet in tender years, better it should be so than not to be the privileged parent of any, for surely the pure angels will be the first to greet the author of their being, when homes of earth fade from sight and celestial homes appear in the distance.

You who enjoy the luxury of a well regulated home, have untold blessings vouchsafed. O, prize that greatest of all gifts from the gods. If thy passion, pride or folly should ever make thee rebel against the laws of peace and paternal or maternal dignity, just think for a moment of the homeless and heart-sore, the unloved and uncared for—except for money and influence—and the smile will take place of the frown, charity will come from its hiding place, and the dark clouds will disappear in sunshine and love. Better far endure the small annoyances which intrude themselves in everyday life, than to give way for the gratification of having a ruling power or fancied wrong righted.

Home peace should be held sacred; the shrine of love never desecrated, its portals undefiled by the betrayer of innocence. Home and its sacred obligations require vigilant watching and prayerful solicitude for continued sanctity. The heart which plans and executes the destruction of home peace and genial surroundings is held guilty of a heinous crime by God and man, for which the law of restitution will bring to the transgressor untold suffering as an atonement.

Our ideal of life's greatest blessing is in home and all its manifold pleasures, secured by rural and industrious surroundings. Few of the wealthy enjoy the peace of domestic quiet and true house life. Domestic happiness is sacrificed on the altar of fashion, and the yearnings for the true and natural are stifled. Notwithstanding all the lessons of life which multiply around us, home ties are broken, the holy altar desecrated, love, peace and purity banished from the sacred hearth, without due reflection on the future consequences, which even reach out to an eternal destiny. Few realize the magnitude of the evils resulting from passion, when in the ascendency. And the beautiful significance of home is lost in anguish and despair.

Oh, how my soul sickens while picturing the dark side of home, for life presents us homes, some showing the glory of a noon-day sun and some the gloom of midnight. The blessings of a happy home are worthy of being cherished as our most sacred idol, for no greener spot, with flowers of beauty, greets us as we pass on heavenward.

How many eyes have been dimmed with sympathetic tears while listening to the wail of the "Exile," by Campbell:

"Sad is my fate," said the heart-broken stranger,
"The wild deer and wolf to a cover can flee,
But I have no refuge from famine and danger,
A home and a country remain not to me."

Even the lonely Nazarene left us a plaintive wail because a home was denied him in mortal existence. "The foxes have holes, and the birds of the air have nests, but the Son of Man has not where to lay his head." What more pitiful appeal could be made in favor of a home, with all attendant blessings. Suppose the good Jesus had been gazing on the happy homes nestled in a productive valley, his meditations would have run thus:

Peace falls as silent curtains of the night;
God's love invests its treasures there.
To man and angels 'tis a regal sight,
While stillness reigns in ambient air.

The country for homes, the city for domestic sepulchers. The desolation of home altars is complete, and the moral starvation of the heart a worse poverty than exists amongst the peasant poor whose humble roof enshrines the home of love. It is indeed a grand recompense for the lack of worldly wealth: the wealth of home with its social ties and sweet memories. "Paradise regained" might be likened to a family circle when the labors of the day are ended, and a re-union cemented by song and story.

"Each chair being filled, the loved at home,
No weary heart, no footsteps roam;
The father, mother, sister and brother,
A kingdom to reign with one another."

All which imagination can conceive or poets sing, can never describe or portray the benefits arising from having a resting place in a happy home. There the weary heart finds rest, and the prodigal is ever glad to return.

If you ask for proof of home's power and influence over the affectionate of our nature, go ask the youth of tender years, after bidding adieu to the scenes and friends of his childhood, and he will tell you with tear-dimmed eyes of the longings of the heart for home and all its sacred surroundings—the brook dancing merrily adown the mountain side, the hawthorn, with its well fingered branches, the village schoolhouse and playmates, the love of a mother and the tender solicitations of a sister, but above and beyond all, the affectionate hands of a father, bestowing the parting benediction, as the last lingering gaze leaves for a season all that has ever been dear of life. Think you such remembrances fade as fades the light of day into darkest night? Ah, no; the memory of home life is indelibly engraven upon the tablets of life's brightest page, to be again re-enacted when memory makes us live again, as when the curtains of night fall over childhood's happy home.

Ask the home-bound mariner the cause of his swelling "heave ho!" as the anchor is brought home to its place. With a kindling eye he will tell you that the magnet of the heart's affection is home, and those who compose the charmed home circle. The dangers of the deep are cheerfully borne, so that wife and children may have the creature comforts, and he is satisfied with the overflowing demonstrations of sympathy on the return of the good ship with a supply of foreign gems to adorn the interior of home and to please the eye of affection.

Though tempests howl in darkest night,
The love of home is the sailor's light;
Though wrecked on barren foreign shore,
Home's star of hope shines evermore.

And thus it is, through struggling life
Home's flowers bloom midst toil and strife.
Our father hath promised us homes above,
Fadeless and boundless as heavenly love.

A Strange Adventure.

[Written for the PRESS by PHILMORE.]

What I saw and heard and felt during the wanderings of which I am about to write may appear very strange, but follow me for a while, and if you do not recognize some of the scenes which I witnessed, I shall think it an illusion and wish it had never been written. Were I to tell you it was a dark night when I set out upon my journey it might seem absurd, and you might throw down the paper in disgust. Believe me then, it was a beautiful morning in spring. All nature bloomed and the fragrance of flowery meads was borne on the breeze. Beautiful landscapes stretched away to the margins of limpid streams. The path was shaded with trees like spreading oaks, the branches of which were laden with mammoth roses of every hue. Sweet singing birds were hidden amidst the foliage, cooing lovingly to their amorous mates. The lilies of the valley carpeted the earth, and crushed flowers repaid me with their sweetest breath. The path is lost; on either hand are dense forests through which the sunlight cannot enter. The damp earth rots the scattered seeds that are hidden beneath the fallen leaves, and the pine tree sings an eternal requiem for the forest monarch that fell amid the elemental carnage in ages past and now lies buried at its feet.

The darkness deepens, the howling wind now bellows, the tall trees bow their heads and tremble to their base. The combat thickens, and the tottering must fall. All elements combine to lay the forest low. Hark! the thunder peals, the lightning's shock now rends the giant trees that a thousand years have stood defying storm and wind. Not one alone but thousands fell as through their ranks I fled, and escaped unhurt amid the general ruin that befel.

I tried my wings, for wings I had, I never knew from whence, but well they served me now. I soared away and perched upon a mountain's top 10,000 feet above the valleys round. Bold and barren; no living thing is seen; the daring eagle courts not such solitude nor seeks to build its nest on mountain top so bleak. I look beneath; a thousand mighty hills have settled in the plain and all seems smooth as roller-leveled lawn. Diamonds like cobble-stones, thick and large lay scattered far and near, and with the rising sun are all ablaze.

I dizzy grew, toppled off and fell. I know not how, or how I escaped unhurt. I found myself in the valley's lowest depth in mud and slime, sinking deeper and deeper still. I struggled hard; I clung to slippery roots that broke and let me down. I felt that all was lost and tried to accept my fate. When lo, a light breaks from below, a blood-red light. Anon another world is seen, and beings strange and creatures all unknown.

I met an aged man that all amazed accosted me thus: "Whence comest thou?" What answer then I made I know not, but begged his aid to aet me on my way. The path he pointed out was overgrown with bushes and weeds beset with reptiles dangerous and vile. But go I must, and with a scythe, the like of which I never saw before, I mow a swath from which the reptiles flee as from a furious fire. I tire and fain would rest. I sought advice again; my ancient friend once more comes to aid me and to tell me my pathway thus I am to make a thousand leagues. I swoon, and when returning reason gains its sway, I hear a sound and see a blazing globe; a screech, and then a halt. A comet gone astray and hurrying home with lengthy train, and stupid passengers that, all oblivious to the dreadful place, sleep on. I strive to get on board and lose my footing, fall With rushing sound the burning mass goes by and I am ground to powder. All but the immortal soul.

I gathered up the fragments and moved along where but now the fiery train had passed at lightning speed. Substanceless as air I sped along, nor feared the pains of flesh; I mounted to a purer sphere where all was bright, and there among the throng, dressed in robes as textureless as light, floating in the boundless space and mingling all in one and one in all, yet all distinct as rainbow hues athwart the arching sky. No night, no darkness there, no gloom, no cares oppressed, but endless day of joy, day of eternal rest.

The morning's earliest ray spread o'er the earth. The sun's first beam the shadows all dispel, and waking from my sleep I knew it was a dream.

WHAT is a man's wealth to him when he is racked and tormented with aches and pains? Many a rich man would give all his piles of gold for one night's sleep. Nay, money stands to him in lien of health, since he sacrificed health for the sake of obtaining money, which cannot assuage one pang, nor lessen one mischief, nor comfort one heart-break, nor supply one affection.

Thanksgiving Day.

WASHINGTON, OCTOBER 26th.—The President to-day issued the following:

By the President of the United States of America, Proclamation:

From year to year we have been accustomed to pause in our daily pursuits and set apart a time to offer thanks to Almighty God for the special blessings He has vouchsafed to us, with our prayers for a continuance thereof. We have at this time equal reason to be thankful for this continued protection and for the many material blessings which His bounty has bestowed. In addition to these favors accorded to us as individuals, we have special occasion to express our hearty thanks to Almighty God that by His providence and guidance our Government, established a century ago, has been enabled to fulfill the purpose of its founders, in offering an asylum to the people of every race, securing civil and religious liberty to all within its borders, and meting out to every individual justice and equality before the law. It is, moreover, especially our duty to offer our humble praises to the Father of all Mercies for the continuance of His divine favor to us a Nation and as individuals.

By reason of all these considerations, I, Ulysses S. Grant, President of the United States, do recommend to the people of the United States to devote the 30th day of November next to the expression of their thanks and prayers to Almighty God; and laying aside their daily avocations and all secular occupation, to assemble in their respective places of worship and observe such day as a Day of Thanksgiving and rest.

In witness whereof I have hereunto set my hand, etc.

U. S. GRANT, President.

HABITUDES OF WOMEN.—The domestic simplicity and utilities of ancient times contrasts strongly with the show and extravagance of the present day. The daughters of Philip, king of Macedonia, sisters of Alexander the Great, employed themselves in making clothes for their brothers. Augustus, who was sovereign of the world, declined to wear any clothes except those made for him by his wife and sister. But a few centuries have passed since any queen or princess in Europe would have been offended with the charge that she did not know how to cook. In those days, before the coming of pianos and wet nurses, the allotted sphere of woman was that of a helpful companionship, and she found employment for her time and energies in the maternal and domestic duties of the household, and contentment rendered such employment pleasant. For the discharge of those functions woman—and woman only—is fitted, and this is her mission into the world. The depravity of our age, however, has affixed to these customs, which are very nearly as old as creation itself, an idea of meanness and contempt, and has substituted in room thereof the fascination of the novel, devotion to fashion, a soft indolence, silly conversation and a strong passion for show. As a penalty for this departure from the purposes of God and decrees of nature, the women of to-day, found in the circles of wealth and fashion, are reaping a harvest of effeminacy, disease, poverty of the heart and early death.

FLOWERS.—Amongst all the pleasant things of life—and the all-bountiful hand of Providence has scattered the path of our days with innumerable pleasant things, if man would but enjoy them—amongst all the pleasant things of life, there are few more pleasant than a walk in the flower garden before breakfast on a sunshiny morning. To see those mute and still, though not motionless, creatures—we mean the blossoms—opening their painted bosoms to the beneficent rays which give them their color and their loveliness, welcoming the calm blessing of the light, as if with gratitude, and seeking, in their tranquil state of being, for nothing but the good gifts of God, might well afford a monitory lesson; for everything in nature has its homily, to us, the eager hunters after fictitious enjoyment. How calm do they stand in their loveliness! how placid in their limited fruition of the elements that nourish them! how, in their splendid raiment, do they sparkle in the sun, how do they drink up the cup of dew, and gratefully give back honey and perfume in return.—*Eliza Cook.*

MARRIED LIFE.—Forbearance is the keynote of married life. There can be no great discord, no large divergences from tunefulness, so long as the husband and the wife forbear. Now this cannot be attained without some labor. Results are approached gradually in character, as they are in making a sand hill. It is grain upon grain, and shovelful upon shovelful, and load upon load, that makes the mound to rise. So results of character come gradually. An act at this time, a deed yesterday, a word this morning, a cross answer to-day, repeated a month hence, and so on, till at last you find there is a ridge between you and your wife's or husband's affection.

HOME EDUCATION.—We should not hesitate to attribute greater importance to home education than to school education; for it is beneath the parental roof, when the heart is young, and melted by the warmth of fireside affection, that the deepest impressions are made; it is at home, beneath parental influence and example, that the foundations of physical, moral and mental habits are laid; it is at home where lasting opinions are founded. School instruction can never supersede the necessity of vigilant parental leading and training at the fireside.

Our Grandmothers.

The wonder about women and work is not that they do many things so well, that they are opening so many branches of employment, but that they have never done all these excellent things before. Every one must choose his own reasons as he best like for the failure of women to keep their places in the business world, but the sore point of working women might reasonably be, not a regret that they have to take certain positions, but that their grandmothers did not do it in their day and generation.

These grandmothers were not all happy at home. They were not all Marthas or Cornelias. Some of them were as keen-sighted as Mrs. Adams, and saw the drift of politics as well. Some of them were French women who put their little fingers into State pies and pulled out plums to their liking. Some of them were Isabellas, and thought jewels a fair exchange for a new world. Everywhere women had power, and used it. The wonder is that they were content to govern by proxy.

The women who spun at home and the women who spin in a factory were not very dissimilar. But how comes it that they have such different ways of thinking about matters in general? The spinner at the fireside wanted to make better cloth than her neighbor, but the spinner in the factory is not content with her work, good as it is; she also publishes a paper, trying to help other women, and takes something more than vicarious interest in the matters of the day.

Were the grandmothers any happier because they lost their individuality in their homes and the work? And did they love the dollar their husbands gave them better than their granddaughters do the one they make for themselves? Was the convent a more pleasant refuge for superfluous women than the factories, the studio, the newspaper office is now? And is it better to kill the baby girls than to make compositors or committee women of them?

These questions our grandmothers did not settle; it probably did not occur to them. We are hardly in a position to do more than ask, but our granddaughters may be trusted to solve the problem why women were so long content to know nothing of the delights of wood-carving, or watch-making, and of driving about in one's own carriage to leave prescriptions, instead of wearily footing it with a bundle of herbs in the pocket, and no prospect of any pay beyond a string of onions, a blessing if the herbs cured, a curse if they did not, and the reputation of a witch in either case.—*The Century for Women.*

A Time to Laugh.—Emerson somewhere speaks of laughter as a habit indicative of want of seriousness, and one, therefore, in which no sensible person will permit himself to indulge. The thoughtful man, he suggests—we do not recall his precise words—in view of the gravity of life, will himself be grave. We could but think, when reading these reflections, that had the sage of Concord laughed a little more and caviled less, the outcome of his long life had been richer and more fruitful of useful results to his fellow men. For laughter has its uses, even to a philosopher. It is like the sugar and cream to our dish of *cafe noir*—softening and mingling the bitter which so largely mingles in the cup of life. A genuine laugh is no sign, as Emerson would lead us to suppose, of empty-mindedness. It *is* a sign of a wholesome, joyous disposition, open and kindly, and it has a wonderful power of diffusing abroad a bright and cheerful influence. A good laugh, too, is often the most direct and effectual means of breaking the intolerable sway of that tyrant known as "the blues," from whose domination the broadest philosophy cannot always release us. Thus, in spite of the Emersonian sneer, we must continue to regard laughter as among the choicest privileges with which our beneficent Creator has endowed His sentient creatures.—*Ex.*

Cheerfulness.—It is a cosmetic which tones the heart and places bouquets all over the countenance. Cheerfulness, like most other talents and merits, is, to a very large extent, the subject of voluntary culture, and the preservation and development of it should be looked upon as a duty which we owe alike to ourselves and to society. Those who, like the generality of men, have been in the custom of yielding up their tempers as vanes to be blown about by the shifting courses of fortune which way they will, would be surprised to know how much the luster of the outward scene may be affected by the light within our bosoms. We may set our spirits to cheerfulness and keep them so, independent of the condition of outward circumstances. And this is the true dignity, and happiness, and piety of man, to live above the shifting and dashing tides of the world's incidents and humors—to bring our natures into harmonious union with the great permanent type of human excellence. Cheerfulness quenches blows, it blunts arrows, it rounds the edge of the sharp sword, it secures pure breathing in the foul air, easy digestion and sound slumber.

Prize.—A prize of 2,000 livre ($400) is offered by the authorities of Reggio, in southern Italy, for the best apparatus for extracting the essential oil of bergamot, the conditions being strength and cheapness in the apparatus itself, combined with capacity for producing the largest quantity of essence in the shortest time, without detriment to the color, purity, and fragrance of the product.



AFTER THE ELECTION.

Young Folks' Column.

The Bees That Went to the Sky.

Buzzy Buzz, Wuzzy Fuzz, Dippetty Flop,
All flew up to the cherry-tree top.
"Pooh!" said Buzzy Buzz, "*this* isn't high!
Let's keep on till we get to the sky."

Upward they went, and they never would stop—
Buzzy Buzz, Wuzzy Fuzz, Dippetty Flop;
"Ah, how jolly!" they started to say—
When ev'ry one of them fainted away!

The next they knew they were down on the ground,
Three dizzy humble-bees, frightened but sound;
Never a mortal had heard them drop—
Buzzy Buzz, Wuzzy Fuzz, Dippetty Flop.

Humbled and tumbled, and dusty and lamed,
Wouldn't you think they'd have been quite ashamed?
But "no, sir," they huzzed, "it wasn't a fall;
We only came down from the sky, that is all."

And now, whenever you see three bees
Buzzing and pitching about by your knees,
You'll know, by their never once venturing high,
They're the very same bees that flew up to the sky!

—*St. Nicholas.*

Young People's Care of Themselves.

Now perhaps you will say, this is a dismal and unnecessary sermon to preach to young people; they have their fathers and mothers to take care of them; they don't take care of themselves. Very true; but fathers and mothers cannot be always with their children; fathers and mothers cannot always make their children remember and obey their directions; more than all, it is very hard to make children realize that it is of any great importance that they should keep all the laws of health. I know when I was a little girl, when people said to me, "You must not do thus and thus, for if you do, you will take cold," I used to think, "Who cares for a little cold, supposing I do catch one?" And when I was shut up in the house for several days with a bad sore throat, and suffered horrible pain, I never reproached myself. I thought that sore throats must come now and then, whether or no, and that I must take my turn. But now I have learned that if no law of health were ever broken, we need never have a day's illness, might grow old in entire freedom from suffering, and gradually fall asleep at last, instead of dying terrible deaths from disease; and I am all the while wishing that I had known it when I was young. If I had known it, I'll tell you what I should have done. I would have just tried the experiment at any rate, of never doing a single thing which could by any possibility get any one of the instruments of my body out of order. I wish I could see some boy or girl try it yet; never to sit up late at night; never to have a close, bad air in the room; never to sit with wet feet; never to wet them, if it were possible to help it; never to go out in cold weather without being properly wrapped up; never to go out of a hot room into a cold ont-door air without throwing some extra wrap on; never to eat or drink an unwholeseme thing; never to touch tea, or coffee, or candy, or pie crust; never to let a day pass without at least two good hours of exercise in the open air; never to read a word by twilight, nor in the cars; never to let the sun be shut out of rooms. This is a pretty long list of "nevers," but "never" is the only word that conquers. if you only say, "This is a bad habit," or "This is a dangerous indulgence; I will be a little on my guard and not do it too often," you have put yourself in the most uncomfortable of all positions; the temptation will knock at your door 20 times a day, and you will have to be fighting the same old battle over and over again as long as you live. This is especially true in regard to the matter of which I have been speaking to you, the care of the body. When you have once laid down to yourself the laws you mean to keep, the things you will always do, and the things you will *never* do, then yonr life arranges itself in a system at once, and you are not interrupted and hindered as the undecided people are, by wondering what is best, or safe, or wholesome, or too unwholesome at different times.—*H. H., in St. Nicholas.*

Good Health.

Enameled Cooking Vessels.

Mr. Robert R. Tatlock, of Glasgow, has lately presented some facts of interest in the *Chemical News* upon the above named topic. He affirms that in some instances the milk-white porcelainous enamel, with which cast iron cooking vessels are so commonly prepared, is of such a character as to be objectionable in the highest degree on account of the easy action upon it of acid fruits, common salt, and other ordinary dietetic substances, by means of which lead and even arsenic are dissolved out in large quantity during cooking operations. He gives analyses of three enamels, the samples being taken from three cast iron pots made by different makers, in each of which lead or arsenic (and in two of them, both of these substances) were found, the percentage of lead being in one case as high as 25 8; and that of arsenic, 1.02.

The author believes that it is not so much on account of the presence of large proportions of lead and arsenic that the enamels are so objectionable, but because they are so highly basic in their character that they are readily acted upon by feebly acid solutions, the lead and arsenic being thereby easily dissolved out. In support of this opinion he adduces the fact that of the three enamels which he examined, a one per cent. solution of citric acid almost instantly roughened and destroyed the glossy surface of that which was the most basic in character, and lead dissolved out to such an extent as to give immediately a dense black precipitate with sulphureted hydrogen, while the one samples in which the ratio of the bases to silica was smaller, were less decidedly affected.

He thought that no enamel should be admitted to use unless it was totally unaffected by boiling with a one per cent. solution of citric acid, which was a very moderate test, and gave it as his opinion that either the use of such poisonous ingredients as lead and arsenic in large quantity should be entirely discontinued, or that the composition otherwise should be of such a character as to ensure that none of the poisonous substances could be dissolved out in the circumstances under which the vessels are used.

Measuring Medicines.

The *American Grocer* recently published an article stating the death of a child from an overdose of opium, which was contained in a prescription administered in "tea-spoonful" doses. Investigation showed that the family had used a large size teaspoon, and had thereby given three-sixteenths, instead of one-sixteenth of a certain preparation of opium. The writer in commenting on the case says: "The many accidents that formerly occurred in the putting up of medical prescriptions, led to the passage of a State law requiring every prescription clerk to pass a severe examination and requiring him to possess a diploma based on such examination. In this law, one of the most important safeguards seems to have been left out. As most of the liquid medicines are administered in doses of 'tea-spoonfuls,' the law should require the druggist to state plainly on the label what constitutes a 'tea-spoonful' in medical parlance."

We thank our cotemporary for the idea suggested, says the *Druggists' Circular*, and, while we do not think that legislation is exactly necessary to cover such cases, we believe that physicians should advise their patients more explicitly regarding the administration of their remedies. Especially in the case of children, medicines should be prescribed by drops, as the most reliable and efficient means of determining the exact dose.

The following designates the equivalent of miscellaneous measures: Tea-spoonful about one fluid drachm; dessert-spoonful about two fluid drachms; table-spoonful about four fluid drachms; wine glassful about two fluid ounces; tea-cupful about four fluid ounces; breakfast cupful about eight fluid ounces; tumblerful about eight fluid ounces; thimbleful about three-fourth fluid drachm; pinch (of leaves or flowers,) about one drachm, Troy; handful about ten drachms, Troy.

How Tall Are We?—A late number of the *Scientific American*, in discussing the question, "How tall are we?" publishes tables showing the mean hight of the men of 24 different nationalities. The result arrived at is that the Indians of the United States are the tallest, the mean hight being 67.934 inches. The whites of the United States come second, the mean of 315,620 examinations being 67.672 inches. Then follow the Norwegians, Scotch, inhabitants of British America, Swedes, Irish, Danes, etc. The English come eleventh in the list, being 66.577, followed by the Germans, who show a mean of 66.536. The French stand eighteenth in the list, at 66.277. The Spanish and Portuguese stand at the foot of the list, measuring 65.635 and 65.432 inches respectively. Comparing the natives of the different States of the Union, those of Kentucky stand at the head of the list, 68.677 inches. Kansas, Minnesota, Missouri, California, Nevada, Indiana and West Virginia follow, all exceeding 68 inches. The people of Illinois stand twelth in the list, at 67.835 inches. Pennsylvanians stand eighteenth, 67.470 inches, while the Yankees of the wooden nutmeg State bring up the rear, being only 66.587 inches.

Domestic Economy.

Vienna Coffee.

A writer for the *Country Gentleman* gives the following: Take a two-gill measure level full of ground coffee; the same of cold coffee or water; one egg, shell, yolk and white, mixed together in a bowl. Rinse out your coffee boiler with boiling water, put this in, and pour over it three pints of fiercely boiling water, or two pints if you wish it strong. Close the spout and lid closely and boil 15 or 20 minutes; pour in about four small tablespoonfuls of cold water to settle it. Rinse out the coffee urn with boiling water before pouring the coffee in. "The boiled milk" for the coffee must be fresh and new, not merely warmed or even brought to the boiling point, but slowly simmered in a farina boiler till it attains a thick, creamy richness; then it must be sent to the table in a hot cream pitcher to keep it warm. "The whipped cream" is made by pouring a cupful of rich cream into a deep bowl, holding the churn about a quarter of an inch from the bottom, and churning it well. As fast as the stiffened froth rises to the top of the cream, skim it off with a spoon, keep it cool, and send it to the table in a bowl. Put into each cup the desired amount of sugar, a tablespoonful or so of the boiled milk; pour on the coffee, and place on top a large spoonful of the whipped cream. Give a gentle stir to each cup before sending them round. Do not grind coffee too fine. A heaping silver tablespoonful of the ground is a liberal allowance for each person, and weighs half an ounce. An ounce of ground coffee to a pint of boiling water is the rule. Two gills of ground coffee weighs three ounces.

Stuffed Beefstak.—Procure a steak cut from the rump or round of beef, weighing about two and a half pounds. Prepare a filling with a pint of grated bread crumbs, an onion chopped fine, a tablespoonful of chopped parsley, a teaspoonful of sweet marjoram, half a one of sweet basil, and pepper and salt to taste; melt a piece of butter the size of an egg, pour over and mix all well together; spread this evenly over the steak, leaving an inch all around the edge; roll up as tightly as you can, secure firmly with skewers through the middle and at both ends; lay the steak in a stew pan, cover it with boiling water, and stew it gently for an hour. Take it out carefully; put a few pieces of butter over it; dust with pepper, salt and flour; lay it on another stew pan; pour the broth it was cooked in around it, and bake until brown, basting it several times. When done, thicken the gravy with browned flour, give it a boil up, pour over the roll, and serve.

Oatmeal Jelly.—A very delicate breakfast dish can be made of oatmeal jelly. Soak half a pint of good oatmeal over night in one and a half pints of water. In the morning drain off the water through a sieve, adding to it one and a half pints of hot water, and put it to boil over a quick fire. Stir till it boils, then set it back and let it simmer 10 minutes. Turn it into molds, and in 15 minutes it will be set sufficiently to turn out into saucers, and will be warm enough to eat. Serve at once, without trimming, or with a little milk or sweetened fruit-juice. The soaked meal that is left can be utilized in batter biscuit, or corn-meal mush, or made into a porridge by itself. In the latter shape it is bland, and peculiarly suitable for invalids who have not yet learned to like oatmeal. These preparations are in no way better than the whole oatmeal, excepting for variety.

Sweet Potato Pudding.—To two coffee-cupfuls of mashed sweet potato (boiled) add one teacupful sugar, one teacupful butter, four eggs, one teacupful sweet cream, one teaspoonful cinnamon, one grated nutmeg, one teaspoonful lemon (extract,) and a pinch of soda dissolved in a teaspoonful of water. Beat the eggs light, add sugar and butter rubbed to a cream; stir all together into the mashed potato while hot. Cover a deep plate with puff-paste, and pour in the mixture. Bake in a moderate oven; when done, cover the top with slices of fruit marmalade, and sprinkle thickly with granulated sugar.

A Compote of Oranges.—Put a handful of loaf sugar to boil with a gill of water in a sauce pan; when it boils add the rinds of three oranges minced finely or cut into very narrow strips. Let the whole boil five minutes, add a wine glass of brandy, and pour the syrup (hot) over half a dozen whole oranges, peeled and cored—or cut up in any form you like. The oranges should be left in a basin with the syrup, till quite cold; and then piled up on a dish and served. They look and eat extremely nice.

Raw Tomatoes.—The simplest and one of the most wholesome modes of preparing tomatoes is to remove the skins by scalding, cut them in slices and season to taste. To our taste powdered loaf sugar makes the best seasoning. The tomatoes should be solid, like the Trophy, and perfectly ripe. As a substitute for fruit, they answer a good purpose, especially the yellow and white varieties.

Graham Muffins.—One pint of Graham flour, a pint of milk, one egg, a little salt.

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ADDRESS all letters to the firm, and not to individual members, or others, who may at any time be absent from our office.

Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, November 11, 1876.

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The Week.

The excitement of the autumn of the Centennial year culminated on Tuesday in the general election of men to the highest places in the nation's gift. The campaign has been one of unusual vigor on both sides, and no stone has been left untnrned which had a chance for a vote beneath it. During the last week especially has the thought of the country been bent on president making, and trade and industry have rested while politics held its brief exciting reign. The election is now over and the nation will return to its soberer tasks with new spirit and endeavor.

First on Wednesday morning there came what seemed certain evidence that Tilden and Hendricks would bear the honors. During the day the skillful figurers of results held aloft the rival names and the Republicans rejoiced, and thus the day closed.

We hold our forms open until Thursday morning that we may give our readers the latest news and in the hope that we may name the nation's choice. But as we write, the problem is yet unsolved and both sides claim the victory. The contest is unusually close and time is required to canvass the returns.

Seed Wheat.

The news comes that considerable areas of wheat have been already sown in the regions of the State where dry sowing prospers, and the work of preparing the ground for the seed is now progressing in those parts where the first rains start the plow. Pertinent to the seed time is the thought of seed.

Upon this topic we do not claim to have anything very startling or very novel to present to our readers. In fact, there is nothing very new in the general practice of our farmers in regard to their seed wheat. There have been some small introductions of new kinds of wheat, chiefly through the distribution of seeds by the Department at Washington, and some of these have received praise from those who have sown the trial grains. These experiments have, however, been so limited and so diverse in results, even in the small number of trials, that no general deductions can be drawn.

Whether indeed our wheat growers can find any kinds of wheat better adapted to the conditions which prevail here than those which they are now sowing, is a question without proof, and, consequently, any answer would be little more than conjectural. We do not doubt that the kinds we have, if propagated from year to year with due regard to the points in a seed which go to secure the most perfect growth, will be found satisfactory and in many cases would result in a better crop than is now obtained.

Much of the wheat which comes into our market is rated low because of its condition. There are ample marks of threshers, who seem to think they can help the millers by cracking the grain for them. There are kernels of unequal size, which betray an unfortunate lack of uniform strength and vigor in the plant, and there is grain which is exceedingly foul, by the presence of foreign weed seed, or which shows the inroads of the wily weevil. These are all points which militate directly against the market value of the grain and reduce the producers' receipts.

Where the practice of the grower is to reserve a part of his crop for seed, and to take no more precaution for the quality of his seed than for the quality of that which he markets, it is plain that he is adopting a course which not only perpetuates the conditions which work to his disadvantage, but he is increasing them from year to year. Defective seed returned to the ground upon which it is grown cannot improve itself. Poor seed removed to a more favorable soil will in most cases borrow new strength and improve itself; but poor seed, without a change of soil, will have but one course, and that is farther down the hill.

To all those who find their wheat possessed of unmerchantable qualities, there is but one plain lesson of experience, and that is that grain is only good to get rid of. It should under no condition be returned to the soil for seed, for there is no hope for it. Better by far make a sacrifice, if it be necessary, to obtain fresh, strong seed, than to burden the soil with that which will not enable it to show its full productive power, but will force it to return to the owner an unworthy product. Many of us have yet to learn the value of a fresh, strong and vigorous seed, even where the product has not yet shown the extreme marks of failure which we have enumerated above. There is often room for the improvement of quality and quantity by the infusion of fresh seed. We are quite sure that our wheat growers do not profit by a change of seed as much as they might. Wheat for seed is a comparatively small commodity in our markets. There is no life in the seed wheat market as there is, for instance, in the English markets. So small is the interchange that our seedsmen do but little except on orders, while in our English exchanges we read flaming advertisements, headed by such legends as the following: "A good change of seed always pays." This trade would not prosper unless the English farmers found their practice to warrant the purchases they make. A point of advantage of this kind the English farmers would be soon to learn, because they are of necessity compelled to study the economies of production. As our own fields seem to be departing from their former deeds, it is becoming quite a pertinent question whether such economies are not becoming of great importance to us also.

While we are in a mood to learn from others, it may be well to remark that our neighbor on the north can teach some of us a profitable lesson. We recently printed a statement that during the last year Oregon wheat had outstripped us in price in the English markets No small part of this success is owing to causes which result from the question of seed. Oregon wheat, while it lacks the desirable hardness of our grain, surpasses it in cleanness and evenness of strength in the kernel. Oregon wheat is becoming more desirable for seed purposes in our city markets than that grown in our own State, for the reason that it is cleaner and of more even quality, and these are qualities which please the English millers, as well as men who call for seed. We have the advantage of a hardness of grain which is truly of great value to the English miller, but with it we should combine other good qualities to gain the full advantage. These matters are intimately connected with the subject of seed, and should be carefully considered by all whose plows are now in the field.

The Heating Power of Straw.

Now that straw has become a prominent fuel in our steam threshing, it is interesting to note its heating power as compared with wood and coal. From some experiments made at the Vienna exposition, a report of which has just been published, it seems that straw gives in effective heating power a nearer approach to its theoretical heating power than either wood or coal. Thus, while the theoretical heating power of coal is 11.51, the actual heating power obtained from it in a steam boiler is 5.2 to 8. Of wood the theoretical power is 4.3 to 5.6; effective power, 2.5 to 3 75. Of straw, the theoretical power is 3, and the actual, 1.86 to 1.92. From these figures it appears that straw raises more steam in proportion to its theoretical heating value than either wood or coal. The difference between the theoretical heating power of a fuel and the effective heating power is the amount which is lost by imperfect combustion, radiation and other causes, and this loss has been found by experiment to be about 53 per cent., or more than one-half. Trials at the Vienna exposition proved that one pound of straw is capable of evaporating from 1 81 pounds to 1 97 pounds of water into steam of 70 pounds pressure and 305 6 degrees F h.

These results obtained at Vienna would probably be found true in greater degree in this State, because our straw is better and drier, and consequently uses less heat to evaporate its moisture, and because our coal is poorer. Thus the ratio between straw and coal would be more in favor of the straw.

It would be an interesting matter to know what is the practical heating power of straw as shown in work accomplished. That is, for instance, how many pounds of straw was used in threshing a ton of grain. Straw is of such little value in this State that the question is not highly important as an economical one, but it would be a satisfaction to know this and it might serve as a basis in useful calculations. If any of our readers have data from which the fact can be shown, we should be pleased to hear from them.

India Rubber Tree.

We read in an exchange that an India rubber tree in the garden of Gen. Redding at Sacramento is growing luxuriantly and has attained a hight of fifteen feet. It is of beautiful form and has large, rich, green leaves. This growth raises the question in the mind of our contemporary whether indeed the tree is of strictly tropical growth, as has been supposed.

There are, as is generally known, several trees and plants from which the caoutchouc of commerce is obtained. The Mexican tree is quite different from the East Indian, and others are different from these. Although the India rubber is produced by sub-tropical countries, there seems, so far as we know, no good reason why some of the plants would not thrive in semi-tropical climes, because the tree, even under the tropics, proves itself adapted to cooler air by flourishing far up the mountain sides. For instance, the *Ficus elastica* of Assam grows on the slopes, from the valleys upward to an elevation of 22,000 feet, according to Appleton's New Encyclopedia. This is doubtless very incorrect, as the highest point of the Himalayas is only 29,000 feet above the sea level. We do not believe that the tree is as hardy as Appleton's makes it, for if it were we might almost lay out Mt. Shasta for India rubber plantations, for he is 17,000 feet up in the air. According to Appleton's the tree flourishes from 5,000 to 6,000 feet above the line of perpetual snow, which is absurd. The truth doubtless is that the tree grows to a considerable elevation in the tropics, and in this fact is found the adaptation which enables it to flourish in Sacramento.

Our attention is called to this matter especially at this time because of news which comes of an enterprise which the English government is conducting, looking to a large growth of the tree in India. The details of the project are given in an article on page 322 of this issue of the PRESS.

The growth of the rubber tree at Sacramento suggests the wisdom of investigating the subject to discover whether the plant cannot be used in an industrial way in this state. Doubtless we have some locations which would be better fitted than Sacramento, and it would be comparatively easy to make the trial.

ACTIVITY IN COTTON.—The Liverpool *Post* says Nov. 2d was the most excited cotton market experienced for years. The enormous sales have thrown business altogether out of gear. The next day prices were reduced all around. The *Courier* says only upon one occasion—upon the eve of the American civil war—have the sales reached such figures as announced on Nov. 2d. At Manchester, with advancing prices, business was active and large.

DR. MEARES reports that small-pox no longer exhibits itself in an epidemic form. During last week only eight new cases were reported.

ON FILE.—"East and West.—No. 6," Philmore; "Chestnut Growing, etc.," C. N. W.

QUERIES AND REPLIES.

The Shell Mounds.

EDITORS PRESS:—In reply to the inquiry and suggestions of your correspondent, "D.", regarding the nature and agricultural value of the material of the shell mound at Emery Station, I state that I have examined it, as well as others alongshore, some time ago, and find them to correspond so closely in most respects to those of the coast of the Gulf of Mexico, that I feel assured that the experience had there will equally apply here. The body of the elevations consists of shells, either whole or but little decayed and broken, among which we occasionally find bones of animals (rarely human skeletons), fragments of pottery, charcoal, etc. This shell material has been extensively used for road making (*e. g.*, for the well-known "shell-road" near New Orleans), and has been shipped up as high as Memphis for the purpose. The ground from which the shell heaps have been removed constitute the "shell hommocks" of the gulf coast, being the best soils of the region. They consist largely of the same "decomposed matter" to which your correspondent alludes; and where gardens have been established in the immediate neighborhood of such places, the material has frequently been hauled a short distance to improve sandy soil, but its value as a fertilizer is not greater than that of any very fertile soil, except, perhaps, where a soil is very deficient in lime. But even then its transportation to any distance would soon render it more costly than the direct application of quick-lime, which can readily be burnt from the shells; and this plan is pursued on the coast of Mississippi and Louisiana. Of course the raw shells are too coarse and too slow of decomposition to be of value as an application to the soil.—E. W. HILGARD, University of California, Oct. 31st, 1876.

Eucalyptus Wood.

EDITORS PRESS:—Having heard it stated that the blue gum of Australia now grown in this country will not rot nor be affected by the teredo in salt water, I desire to get through your paper some positive information as to the fact, for if it be true all the farmers in this part of California should know it. Give statement as to where any trial has been made for piling or building in salt water, and if possible the name of the parties experimenting. The tree grows with but little care in San Diego and very rapidly, and requires no fencing of the land, for no animal that lives here will eat it so far as I can ascertain. Some of the trees here are six years old, twelve inches diameter near the ground and 60 to 70 feet high, and considered more valuable for wagon material than any other grown in southern California. If proof against sea water we would be very much obliged to you for the information.—R. R. MORRISON, San Diego, Cal.

We have no certain information of the matter our querist states. Baron Von Muller writes of the red gum (*Eucalpytus tereticornis*) that, "next to the 'jarrah' of western Australis, it is the best wood for resisting the attacks of sea worms and white ants." If any reader can give us further information on the point made by our querist, we should be pleased to receive it.

We presume it is the "jarrah" or mahogany tree of southwest Australia which our correspondent has in mind, for this is a eucalyptus (*Eucalyptus marginata*, Smith), famed for its indestructible wood, which, according to Muller, is attacked by neither chelura, nor teredo, nor termites, and is therefore so much sought for jetties and other structures exposed to sea water. Vessels built of this timber have been enabled to do away with copper plating. This tree does not grow as rapidly as blue gum in the neighborhood of Melbourne, but Dr. Muller expresses the opinion that it would make a rapid growth in a more favorable locality.

As for animals eating the leaves of the blue gum, we have cause to lament the fact that a horse made a meal of the top of a young tree growing in front of our residence before we could get from the window to the sidewalk to stop him. Whether the depraved taste of a city horse and his eagerness for anything green led to the plucking, or whether he felt the need of the medicinal qualities of the plant we cannot tell; but the fact, as we saw it, was that he plucked and did eat.

Raisin Boxes.

EDITORS PRESS:—Please inform me through the RURAL PRESS whether California raisins are packed in 20 or 25-pound boxes.—J. B., Riverside, Cal.

It is estimated that three-fourths of the California raisin product will be packed this year in 20-pound boxes. Mr. Briggs and Mr. Blowers use this size altogether. As Mr. Blowers packs his raisins in layers, the hight of the box is a little greater than that used by Mr. Briggs, who packs in bulk. We are informed that one of our city firms last year bought raisins in all sized boxes and repacked them in the 20-pound size. We hear that M. R. Miller will produce 15,000 boxes of the 25-pound size, but we are not aware of any other large curer doing it, although there may be such.

Tomato Vinegar.

EDITORS PRESS:—Please inform a constant reader of your most valuable paper how tomato vinegar is made. —WM. RAYNOR, San Gregorio, Cal.

Will some reader favor us with the information?

PERSONAL.—On Thursday we had a brief but profitable conversation with Mr. J. C. Woods, manager of James R. Keene's property at Mission San Jose. Mr. Woods has been pursuing his investigations into raisin curing during the season, but the early coming of the rains will force him to turn his grapes into wine. He has been experimenting with a combination of sun heat and artificial heat in raisin curing, and has established the satisfactory quality of the product resulting, but has not determined the question of economy. We expect he will pursue the subject another season and give us the publication of his conclusions.

WE have received from the H. C. Shaw plow company, of Stockton, an illustrated price list of their manufactures and the implements they have for sale.

Grape Syrup.

EDITORS PRESS:—I take the liberty of sending you, by express, another sample of our grape syrup, and I want you to judge between this sample and the one sent you before, whether we are improving on the color and flavor. This manufacture is entirely new to all of us. It is like many other things which require both practice and experience. I find it very difficult to overcome the acid and give it a nice color. We have a high color to contend with in the first place, as the Mission grape turns out a dark juice, but I am now fully satisfied that a fine article of syrup can be made. The sample I now send you, according to my opinion, is good enough for any one, and yet it can still be improved on by the use of proper machinery. Those common evaporating pans will not answer. It comes in too close contact with the fire, and this fluid is much easier to scorch than any other juice I ever tried to evaporate.

One thing I find we have yet to contend with, and that is, when it is cooked down to a thick heavy grade it will all become very grainy. It seemingly turns to sugar, yet it is not of a sugar grain. If it would turn to real sugar it would not be so bad. I will still try and see what I can do, hoping to be able to overcome these things by another year so that we can try it on a larger scale. I am satisfied it can be made a paying business by working up everything clean, and what will not make syrup, use for other liquors.

I will also send you a small sample of the syrup after it becomes thick and grainy. This is some of the first we made. It has been made about six weeks.—J. GILLAM of GILLAM & BRUCE, St. Helena, Cal.

The syrup is greatly improved over the first sample received. It bears a dark rich amber color; it is clearer and a more perfect fluid; the flavor is rather more refined and delicate. It shows wide progress in the working of the process and should give the manufacturers reason to take courage for farther improvement.

We have no doubt at all that the manufacture would turn out a handsomer and better flavored product if the evaporation were done by steam, and better still would be the evaporation by steam *in vacuo*. This would remove all chance of scorching It would remove the water at the comparative low temperature of 150 degrees, because water vaporizes at about this temperature *in vacuo*. The introduction of such apparatus would greatly increase the capital necessary for the manufacture, but it would at the same time increase the capacity greatly, and if the business features of the enterprise can be made promising enough, the investment of capital would be warranted.

We are not fully informed of what Gillam & Bruce's process consists in, or whether it is identical with that of Mr. Weinberger, which has been described. We cannot see why their efforts to neutralize the acid should work against the color of the syrup if it be done carefully. The action of the lime and heat in coagulating the albumen tends toward clarifying the syrup, unless the lime should be added in excess, in which case the albumen would be re-dissolved in the excess of alkali, and the grape sugar will exhibit its tendency to form a brownish compound with the alkaline earth. This is a tendency which cane sugar does not exhibit. But this is a matter which they are experimenting on. We should think if the syrup was run from the clarifying tank through a bone-charcoal filter, the objectionable color would be effectually removed.

What our correspondent calls grains in the syrup will probably trouble him considerably unless he can overcome the tendency which deposits them. These grains are identical with the "candy" in honey. The sugar of the grape is glucose and this is also the chief component of honey. Glucose is characteristically disinclined to crystallization, but when concentrated separates from its menstruum in the mass form. This is a point which will need investigation and experiment, for unless the grape syrup can be taught a different behavior from honey, it will be greatly reduced in its value as an article of merchandise. We shall be pleased to hear of what success our correspondents gain in this direction and will gladly tender them the benefit of any examination we may be able to make with the granulated sample which they sent us. We cannot pursue the matter further at this time.

A WILLOW FUNGUS.—Dr. H. W. Harkness is still pursuing his investigation of the fungus plants which infest our vegetable and tree growth. He reports to the last meeting of the S. F. microscopical society as follows: I have to-day sent some willow leaves infested with a fungus. These diseased leaves are found at the present time in the greatest profusion upon the willows skirting the Sacramento river. You will observe that the fungus appears both upon the upper and under surface of the leaves, in bright yellow heaps (*sori*), which are formed by the aggregation of the spores. This fungus is the *Melampsora Salicini* (Lev.) belonging to the order *Cœmacei*. The *sori* are scattered, of a bright orange color in the autumn, becoming dark or nearly black in the winter. The mounted slide exhibits a section of a leaf with the spores *in situ*. These, it will be seen, are crowded into a dense, compact mass, of bright orange color. The spores are, in many instances, globose; in others oblong, and are filled with granules. The sample I send you is but one of very many varieties of leaf-fungi to be found at the present time throughout the valleys of California.

MANY whalers in this city are of the opinion that no fears need be entertained regarding the fate of the men left in the Arctic ocean by the recent disaster to the whaling fleet. They say the autumn winds and currents will drive the vessels upon the southern shore, when the men will have no difficulty in landing. The vessels have a good supply of provisions and fuel on board and the natives are said to be friendly. They think it quite probable that the men and vessels may yet be saved.

The Horse's Foot and Its Diseases.—No. 6.

Having in previous articles completed our brief notes on the anatomy of the horse's foot in its healthy state, we have now to instance a few of the most common diseases. We choose first those diseases which arise from what is called "periostial inflammation." This inflammation is so called because it is excited in the "periosteum," which is a fibrous membrane investing the bones. It is necessary to their nutrition and regenerates bony substance which has been removed or destroyed. Our illustrations show the effect upon the bones of the different diseases arising from periostial inflammation.

These diseases may arise from a number of causes. Perhaps the most common is the evil of overwork. Hard driving on a hard road, as on a plank road, or the strain of draft at too heavy a load, may excite periostial inflammation, and from this as a commencement we may have splint, spavin, ring-bone, nodes, etc.

"Splint" (Fig. 17) is a bony tumor at some point about the cannon and splint bones. The *knee-joint* is formed at its inferior part, between the lower row of carpal bones and the cannon and splint bones, the two latter forming a considerable portion of the joint. As the leg is flexed these bones slide upon the cannon-bone, contributing to the elasticity of the step. When the motion is violent and long continued, especially with striking upon a hard surface, irritation first and inflammation afterward may be produced in the periostial membrane covering these bones. Bony matter is thrown out in the immediate vicinity of their adjacent surfaces, and the result is a sealing together of the bones and the formation of a bony tumor. Unfortunately the condition is frequently overlooked until the change is complete and the disease beyond a remedy, for when the bony union is thoroughly consolidated it cannot be remedied. For a time, while the deposit is fresh callus and the circulation active, measures to abate the inflammation and to excite the absorption of the deposit may restore the integrity of the part.

"Ringbone," (Figs. 19 and 20.)—In the pathology of the disease splint and ring-bone are the same. They have the same causes and are preceded by the same stages of morbid action; but, from the relation of parts, ringbone, at its former stage, gives rise to earlier and greater lameness. Attention is earlier called to the disease, and treatment is usually sooner applied. Splint may go on to its final stage of bony consolidation without giving rise to much lameness, and without attracting attention to the diseased part, which may escape observation unless the hand is passed over the small tumor; but in ring-bone usually the lameness appears with the inflammation, and the earliest effusion over the region calls attention to the seat of the disease.

"Spavin," (Figs. 21, 22, 23 and 24)—When it consists in the deposit of bony matter about the hock joint, and the consequent cementing together of the tarsal bones, or the destruction of the tarso-metatarsal joint, is a similar disease, having essentially the same causes. This form of disease may exist in every degree, from a slight enlargement of the bone near the joint to such an amount as will entirely destroy the joint, and so invade the soft tissues that the slightest movement is productive of great suffering.

Treatment for these Diseases.

Cure or alleviation of these bone diseases is possible only in the first stages of the disease, so that on the occurrence of lameness for which the cause is not obvious, careful search should be made in the localities in which splint, ringbone, or spavin may occur. Tenderness and perhaps swelling may be detected by careful examination. The first requisite is rest. Bathing with warm water should be promptly and perseveringly resorted to. The foot should be put into a bucket of warm water, which should be applied with a sponge to the locality of inflammation. Should there be pain, as shown by general uneasiness and constant movement of the limb, a poultice should be applied, moistened freely with a mixture composed of equal parts of the tincture of aconite root, opium and belladonna. The application of a mixture of one part chloroform and two parts sweet oil may act as a revulsive. Later, when the pain has subsided, the tenderness somewhat abated, and only swelling remains, an ointment of one part of the iodide of lead with eight parts of lard will be found useful in removing the swelling and remaining engorgements of the parts. When put again to use, the animal should be at first gently exercised and brought gradually to his work.

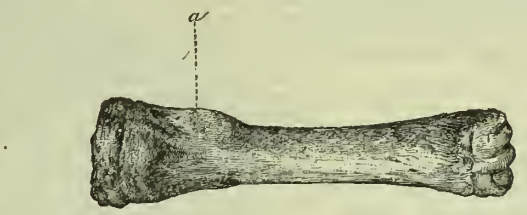


Fig.18.

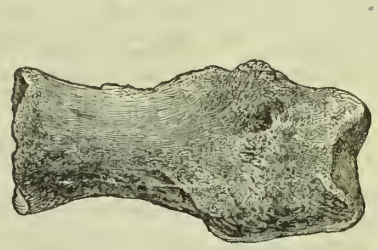


Fig.19.



Fig.20.

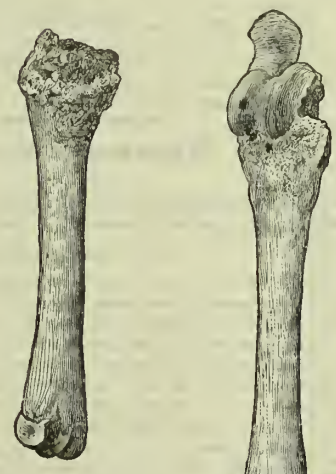


Fig.21.



Fig.23.

Fig.22.

ANATOMY OF THE HORSE'S FOOT—NO. 6.

FOR burning sawdust in furnaces, keep grate low; grate surface large; grate bars thin; spaces between bars narrow; begin firing with sticks of wood, then only with sawdust in a very thick layer, and it will burn without difficulty even if wet.

TUESDAY, election day, was a legal holiday all over the country, and banks, public offices and courts were closed.

THE man-of-war *Nelson*, of 7,000 tons displacement, 6,000 horse power and 20 guns, was launched at Glasgow on Saturday.

The Monterey Fair.

[Reported for the RURAL PRESS by C. N. W.]

The "Monterey Agricultural Fair Association" has just closed its first annual session, held at Salinas City, October 25th and 28th inclusive. Its officers are J. D. Carr, President; C. S. Abbott and J. R. Hebbron, Vice Presidents; William Vanderhurst, Treasurer; N. Hartwell, Secretary; J. B. Iverson, William Quintel, W. V. McGarvey, H. S. Ball, Thomas Graves and J. T. Porter, Directors.

This association was formed one year ago, and this exhibit was the first and trial working of its machinery. It is not surprising that in this trial, as in all others, the new institution should be found to experience in some of its parts unnecessary friction; that in one part its gearing requires a little tightening and in another a little loosening and the whole requiring more lubrication. And yet, if it comes nobly up to its work and successfully performs its task, all these disadvantages are but proofs of its capability and value. So with this association, whatever was too loose or too tight or needed oiling (and this was small) is by its present experience all adjusted and is now on the track prepared to speed along the road of progress the material and agricultural interests of this beautiful portion of this great State. And perhaps we shall find no more fitting place than this to acknowledge the courtesy and kind consideration extended to the reporter of the RURAL PRESS. Every privilege of the exhibition and every facility for reporting its proceedings and exhibits was freely and unstintedly afforded by the officers of the association. And likewise would we include in our meed of thanks the editors of the *Index* and *Democrat* for favors, especially to the former, who, with true Bohemian generosity, laid us under many obligations. They are both wide awake men, assiduously working for the true interests of their beautiful city and valley; appreciating the value of the RURAL PRESS in its great work of extending agricultural literature, and in turn are appreciated in the liberal patronage extended to their respective papers.

The fair grounds of the association lie in a northerly direction and are about a mile from Salinas, and were donated to the society by Eugene Sherwood, Esq. They consist of 70 acres of land, lying upon an elevated and commanding position, and are well improved, being fenced on the west and north sides with a high board fence, and on the other two sides by a substantial picket fence. The road from the city passes along its western side the whole length, while its eastern side opens out to the valley, extending, with its farms and groves, seven or eight miles to the foot of the Gabilan mountains, which rise grandly between this and the San Benito valley. On the south side, and separated from the fair grounds and race track, the association has laid out a fine park, and ornamented it with shrubs and trees, which will in a few years afford the residents of this city a delightful place of resort.

The Improvements

Upon the fair grounds are first class, and consist of 90 stalls for cattle, sheep, goats and swine, and stables for 40 horses; the grand stand, which will afford sitting room for a large number of spectators, with a restaurant underneath, out-buildings necessary, a good office building at the gate on the west side next road, a good board fence both sides race track, a good well, with wind-mill and tank, affording abundance of water for all the wants of the place. These improvements have cost about $8,000. On the present occasion, and the first use of the grounds for fair purposes, all of the stalls were filled, and I think that most of the stables were occupied, The space at the south end of the grounds, and lying between the stalls and the track, was pretty well filled with agricultural implements, machines of various kinds, and wagons, carriages, etc. Among the exhibitors in these articles were M. C. Hawley, of your city, and Cahoon & Bros., of Alameda county, Brown & Bro., of San Francisco and Salinas City, etc.

The first day of the fair at the grounds was spent in the opening exercises, trotting, etc. At 10 A. M., second day, there was a

Fine Display of Stock.

The horses were of all grades, from a horse for all purposes up to the well-bred stallion—from the sucking colt and dam to the thorough trained horse. These animals exhibited points of excellence that proved that the horse breeders of the valley have not been less careful in their attention to this interest than those who live in the older settled portions of the State. Among other noted horses present were two imported Belgian stallions, "Adolph" and "Leon," belonging to and exhibited by D. V. Willets, of Watsonville. These two are draft horses of about 1,500 pounds, of exceedingly compact build and of great strength. But we can't speak of each of the horses exhibited, nor of their points of excellence, as it would occupy too much time and space.

All the

Horned Cattle

Exhibited were thoroughbred, and as fine as any in the State. The first in size of herd, beauty in color and of points, were the Durham and

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Continued from Page 315.

form, entirely different from the old still I had heretofore seen. A very elaborate diagram would he required to convey a proper conception of it.

Great credit is due to the energy and ability of the senior member of the firm for preventing so much of the wealth of California leaving the country. In the course of a few years I predict we shall wholly cease to import foreign wines.

In the immediate vicinity of Messrs. K. & F.'s place I saw another very large establishment, but on making application to snrvey it I was informed by a stont German, appareutly of some 50 years of age, that he was "ferry pizzy" and couldn't attend to me. Of course I regretted this, as I wished to do each establishment justice, "nothing extenuating aud setting down naught in malice." I was especially anxious to be impartial.

Mr. M. Keller's

Works sre situated a little southeast of the city. I was unfortunate in not finding Mr. Keller here, he being at the Centennial exposition. I found, however, a very excellent represeutative in Mr. Lammott, who, with the greatest courtesy, threw everything open to my inspection.

Mr. Keller'e vineyard occupies an area of 125 acree, aud makee about 70,000 gallons of wine a year, of the following varieties of grapes principally: Muscat of Alexandria, Muscatel Burgundy, Black Hamburg, Rose of Peru; while all the winee made here are of first quality. I was particularly impressed with the euper-excellence of the Sherry.

I heard so much of the large-heartedness aud good nature of Mr. Keller, aud of his being a leading man aud pioneer, not only in wine making, but in tobacco growing, cotton planting, etc., that I felt it a personal misfortnne not to have had the pleasure of making his acquaintance.

The method pursued here greatly resembles that described at Messrs. Kohler & Frohling's place, the one being almost a *fac simile* of the other, both deserving of the patronage they enjoy.

There are some other large works here, but seeing an account of a visit in the Los Angeles *Herald* of October 7th, saying that the practices of the "ancient style" of working are in vogue there, I did not wish to see it, preferring to follow Mr. Ruskin'e maxim, never to see anything disgusting or unpleasant that can he avoided.

I transmit the *Herald's* account, that you may see for yourselves to what I allude. In my mind wine makere cannot be too clean aud tidy in their operations, while the *Herald's* account is perfectly sickening in its details, as you will see.

There are numerous small manufactories which I do not refer to, although in the aggregate they make a great deal of wine. But "it is difficult to draw the line" in this instance, as the barber found it in "Nicholas Nickleby," and the manufacturer of 1,000 gallons might feel injured if he were not named equally with the one of 2,000 or 3,000 gallons.

The small manufacturers complain greatly of the trammels of legislation, which prevents their turning their wine into brandy, some declaring that the low price of grapes scarcely paid for the picking aud hauling. Twenty-five to thirty-seven cents a hundred pounds does seem ridiculously cheap to "a looker on in Venice." The large manufacturers again repound by saying that the old Mission grapes are not worth more; that they would willingly pay a better price for a better grape. "Give us the best grapes, aud we will give the world the best wine, aud pay well for them," say they.

In my next I purpose saying a few words on the Cucamonga wines of San Bernardino county. George G. W. Morgan.

Los Angeles, Oct., 1876.

HORTICULTURE.

Orange Scale Bug.

Editors Press:—In the Press of October 14th are some inquiries in regard to the above insect, by Mr. S. Bristol, of San Buenaventura. He aske, "whence come the bugs? aud is there any way of growing an orchard without them?"

The damp foge of the coast valleye seem, to me, to he the cause that producee the scale bug on orange treee grown in those places, aud if this is true, there can be no lasting cure so long as the cause exists that produced them. On examining orange treee anywhere on this coast, in reach of those damp fogs, we find them covered with this insect, while in the interior valleye they don't exist, except on low, wet land. There are a few orange trees in the town of San Bernardino that are covered with the scale bug, while at Old San Bernardino there are none. The former place is sitated on low, wet land; the latter is on high aud dry land. There are more old bearing orange trees at Old San Bernardino, the fruit of which is bright and clean and of a much better quality than that grown on trees covered with these peste.

In my opinion, if Mr. Bristol wishes to grow oranges of the best quality and entirely free of the scale bug, he must plant them on lands ont of the reach of the cold, damp fogs. Anywhere in the interior of this State where the frosts are not too severe for the growth of the tree, is better than the coast valleys.

San Bernardino county is as well adapted to orange culture as any portion of the State, and perhaps better. Certain it is that the best oranges grown in the State at present are grown in this county. There are large tracts of land suitable for successful orange culture situated in this county, one of which is at Riverside. We have here 20,000 acres in one body, high and dry mesa land, but all subject to irrigation from two large canals, one of which is 10 and the other 15 miles long. We have room here for 2 000,000 orange trees. We have now about 50,000 in orchards, all clean aud thrifty, and no scale bugs except on trees brought from Los Angeles, but the bugs disappear in a year or so after planting here. Some of these trees are in bearing this year for the first time. There are quite a number of lime trees here in bearing, the fruit of which is very fine. Mr. Giorgiani, a fruit merchant of San Francisco, was here a few days ago. He pronounced our limee to be the best of any he had seen that had grown in this State, and we have reason to believe that our oranges, also, will be of the very best. Lands are cheap here now, but those who wish to own orange groves here had better come soon, for in a few years it will take a pile of money to get a foothold here.

P. S. Russell.

Riverside, San Bernardino Co., Oct. 23d.

[Our correspondent introduces a question of locality which all our readers doubtless will not endorse. The subject is, however, a fair theme for discussion and we admit it. We recently had the pleasure of a conversation with Mr. Thomas A. Garey, of Los Angeles, who is perhaps the leading orange grower of the State, and he promised us an article on the subject of orange culture. We should be pleased to have him shed light upon the theme at this time, if convenient to him.—Eds. Press.]

India Rubber.

While nations have been agitating themselves with affairs in the East, and fears of change and other like dangerous and distracting matters, a wiser man, saye the London *Standard*, has been devoting himself to the study of the great india rubber question in the forests of Darien. The world could get on very well without Eastern questions, but could not manage at all without india rubber, and there has been reason to believe that the native way of supplying the commodity is wasteful, and would in the end be destructive. Indeed, our explorer has found it the custom to cut down big trees, varying from 150 to 200 feet in hight, for the sake of an amount of rubber varying from 100 to 150 pounds. He has also found what are the climatic conditions best suited for the growth of the tree; and to these and similar explorations, the Kew authorities have just given a practical turn, for a shipment of 38 cases of Brazilian india rubber plants, containing over 1,900 plants, has recently been dispatched from Kew to Ceylon, and, it is worth mention, within the remarkably short space of two months from the time of the seeds being sown, this tree yields the finest kind of caoutchouc, or "india rubber" with which we are acquainted, imported from Para, in Brazil. The Royal gardens have for some time past been occupied in its cultivation for introduction to those countries where it may be expected to become a rubber-producing tree. In June of this year 70,000 seeds were received, of which only about three and three-quarter per cent. were alive. In consequence of their retaining vitality but for a very short period, they were all sown the day after arrival, and, though not contained in pans, covered a space of over 300 square feet, closely packed together. A number began to grow almost immediately, and many within a few days reached a hight of 18 inches. So quickly do they grow that the cases had to be made from special measurements, allowing for growth during transit. Each case contains, as a rule, 50 plants. Besides these to Ceylon, other cases have been sent to Singapore and Burmah, and still others are in hand for various destinations. Altogether it is likely that about 2,600 plants will be distributed from this hatch of seeds. This is good work, and we may reasonably hope for it the same success that has been attained in the case of our cinchona plantations.

Direct Manufacture of Soap With Salt.—If grease, fat, or resin, which are commonly employed to make soap, are heated with an excess of common salt, ammonia, and water, a soda soap separates, leaving chloride of ammonia in the liquor, together with the excess of ammonia and salt. This reaction is the consequence of the great solubility of ammonia soap in ammoniacal water, and the insolubility of soda soap in water containing more than one-half per cent. of salt. The ammonia at first unites with fatty acids; then the sodium in the salt exchanges places with the ammonia in the soap, forming, as we said, a soda soap and chloride of ammonia. It is essential that there be an excess of ammonia and salt present in order that the reaction take place. One hundred parts of grease require 15 to 20 parts ammonia, 20 to 30 parts salt, and 200 to 300 of water.

Meteorology.

The most important publication that has come to hand since the beginning of the year is the fine volume issued by the Smithsonian Institution under the title, "Tables, Distribution and Variations of the Atmospheric Temperature in the United States." These temperature tables are based upon all available thermometric observations made in the United States and Canada previous to the year 1871, the estimated number of which will not fall below 11,000,000. The labor of discussing this great mass of observations and of deducing some general results has been ably performed by Mr. Charles A. Schott, of the Coast Survey office, to whom science has also been indebted for the Smithsonian rain tables and for many other special works in meteorology. Three large charts accompany this work, showing the distribution of surface temperature for the summer, the winter and the year. Numerous smaller plates illustrate the daily and annual fluctustions of temperature. Mr. Schott finds no perceptible secular change in the temperature of the country, nor any decided connection between our temperatures and the variations in solar spots. For 10 stations the mean temperatures have been computed for every day of the year, and it appears from these that changes in the normal temperature of any day extend over large tracts of country, and progress in an easterly direction. All the stations agree in showing a rapid rise in temperature about the 20th of February. There are also indications that the hottest and coldest epochs change somewhat from year to year, making a complete circuit in 70 years through a range of about six weeks. On comparing the average direction of the wind with the average temperature, it appears evident that for years of northerly winds the temperature is lower, and for southerly winds is higher, so that secular changes in local temperature are attributable to corresponding changes in the direction of the wind. These latter changes, on the other hand, must be a part of a system of oscillations in the general current of the atmosphere, which may possibly be ultimately due to slight variations in solar radiation.

Although the Smithsonian tables approach so nearly to being an exhaustive compilation, yet there are continually being brought to light hitherto unknown series of observations, some of which will be worthy of future publication. Of this character is the extensive work done by Engelmann in 1859, as meteorologist to Simpson's explorations in Utah. His report on the hypsometric results of these observations has just been published by the Army Engineer bureau, and forms one of the best contributions that the army has made to the subject. In this report Engelmann gives a very lucid explanation of the influence that vapor exerts in affecting the diurnal variations of temperature on the Western plateaus.—*Harper's Magazine.*

Rupture Cured.

We would advise all those of our readers suffering of Rupture to carefully peruse the following:

San Francisco, September 25th, 1876.

I would state that I have been ruptured for nearly three years, and have worn various kinds of Iron and Steel Trusses, without any benefit. I saw an advertisement of the MAGNETIC ELASTIC TRUSS CO.; called on them on the 28th day of July, six weeks ago, and now, on the 25th day of September, 1876, after wearing the MAGNETIC ELASTIC TRUSS only six weeks, I am astonished and delighted to find myself perfectly well. If any person should have told me two months ago that I could be cured, I would have laughed at them.

D. ALEXANDER,

809 Jackson street, near Stockton, S. F.

ONE MORE.

San Francisco, October 20th, 1876.

After being ruptured more than TEN YEARS, and having suffered great pain and inconvenience thereby, I am now happy to say that I am CURED, and do not wear any Truss whatever. The MAGNETIC ELASTIC TRUSS, which I purchased on the 19th day of last August, has done the work, and I would earnestly advise all those suffering from Rupture to give it a trial.

CONRAD D. HILTON,

Carrier for the *S. F. Chronicle.*

MAGNETIC ELASTIC TRUSS COMPANY,

609 Sacramento Street, S. F.

The Mining and Scientific Press,

Established 1860, is a Large, Ably Edited and Liberally Illustrated Weekly—the Best Practical Mining and Mechanical Journal in America. $4 per annum, postage paid. Dewey & Co., San Francisco.

Thoughtlessness.—Persons sometimes return their paper, marked "stop this paper." Their name being pasted on the sheet they think that is all we need to be able to cross their names off. Now that is thoughtlessness. Your P. O. address is needed as much as your name. We have thousands of names arranged only according to locality. Our mailing clerk does not know where everybody lives.

No Agents are authorized to receive subscriptions for this paper at less than our advertised rates.

A Standard Employment Agency in San Francisco.

The agency to which we would now call the attention of the readers of the Rural Press, was established twenty years ago, and is the oldest establishment of the kind on the Pacific coast. From a small beginning in 1855, it has grown to such dimensions that it has been compelled repeatedly to move into more commodious quarters, and now it occupies the large double store formerly occupied by M. Gray & Co., No. 625 Clay Street, next door west of the banking house of the San Francisco Savings and Loan Society, one of the most central business locations in the city. MESSRS. CROSETT & CO. are daily supplying orders sent from all parts of the State, containing requests for every variety of labor, for the farm, the field, orchard, vineyard, tending stock, or cultivating the soil; for all kinds of lumber, milling and mining work, from superintendent down to simple laborer; for the shop, mechanics, engineers, artisans, and skilled workmen of every kind. Nor do their orders contain requests for male help alone. Great pains is taken to supply our housewives with the very best Domestics. Cooke and General Housemaids that can be obtained. They would call the especial attention of GRANGERS AND FARMERS GENERALLY to their facilities for supplying farm help. Referring confidently to their past record for faithful attention to the wants of patrons, they have no hesitation in assuring all applicants who may favor them with their orders, that they can nowhere else be better or more promptly served than by applying to this old established agency. Mr. Crosett gives his constant personal attention to his business. His long experience makes him quick to see and accurate in judging of the merits of those who apply to him for situations. And his well established and wide extended reputation brings to his office an abundant supply of every kind of labor, from which he is enabled to select the best.

All this advantage Mr. Crosett gives to those who favor him with their orders, and that, too, without any expense to the employer—all the fees, (which, by reason of a large business being transacted, are moderate), being paid by the employee. The Employment Agency of Messrs. Crosett & Co. is supplying a great need in our State and we take pleasure in commending it to all readers of the Press.

The Immigrant Bureau Re-Organized.

A Free Employment and General Information Office.

The Peoples' and Granges' Immigrant Bureau, which accomplished so much good last year, has been re-organized under a new Board of Directors, and will continue its good work of attracting immigration and providing for the necessities of the new comers FREE OF CHARGE. Four thousand and eighty-two situations have been found for applicants since May, 1875 The Bureau expects to receive orders for all the help that may be required in the country the present season. Four hundred persons visit the office daily. Descriptions of land, maps pamphlets, circulars, and local newspapers, should be sent to the Bureau. They will be freely distributed among inquirers. The Bureau was established by the State Grange, and being supported *entirely* by subscription NO CHARGE is made for any business transacted. The following gentlemen are on the Board of Directors for the ensuing year: Mayor A. J. Bryant, Chairman; I Friedlander, C. Adolphe Low, Mark L. McDonald, Amos Adams, J. Regensburger, C. D. Sullivan, Charles Lux, George H. Eggers, J. C. Wilmerding, C. J. Cressy, John Morton, Col. A. Waeon, Hon. F. A. Gibbs, F. B. Taylor, C. H. Dennison, Claus Speckles, Charles Kohler, A. W. Thompson, All communications should be addressed, J. EARL, Manager, Immigrant Bureau, Grangers' Building, 40 California street, San Francisco.

Superior Photographs.

To be sure of a good picture, you have only to patronize G. D. Morse's Palace of Art, at No. 417 Montgomery street, S. F. The publishers of this journal have patronized Mr. Morse for many years, and do not hesitate to say that his pictures are not excelled by any we have seen produced in this or any other country. No one can ask for a better man to patronize than Mr. Morse. He is affable and respectful to all.

WHOever desires profitable employment **WILL** find that there is nothing by which they **CAN** ae easily earn a livelihood and **MAKE** themselves useful, (for certainly **MONEY** is not the only object of life,) as by canvassing for "Lights and Shades in San Francisco." A Good Agent is wanted for every town on the Coast. Address immediately,

Pub. "Lights and Shades in S. F."
P. O. Box 1211, S. F.

Breeders' Directory.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

A. MAILLIARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, San Bruno, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $100.

P. STANTON, Sacramento, Cal., breeder of choice Jersey Cattle. Bulls, Cows and Calves for sale.

SHEEP AND GOATS.

GARNIER BROS., Encino Ranch, Los Angeles Cal., breeders of pure French, Spanish, and Saxon Merino Sheep. Price, from $25 to $50, each.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

T. A. WILSON, Grayson, Stanislaus county, Cal. Breeder and Importer of Spanish Merino Sheep.

LANDRUM & RODGERS, Watsonville, Cal., breeders of Pure Breed Angora Goats.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

M. FALLON, Cor. Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Fowls for Hatching from Pure Bred Fowls.

J. M. KERLINGER, Ellis, San Joaquin Co., Brown Leghorns a specialty. A few Pure Brahmas and White Leghorns for sale cheap, to close.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas and B. B. Red Game Bantams. Also Eggs.

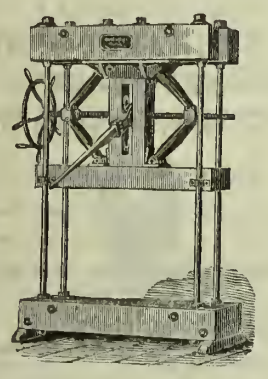
SWINE.

ALFRED PARKER, Bellota, San Joaquin Co., Cal., Breeder of Improved Berkshire Swine.

Agricultural Articles.

BOOMER PRESS,

For WINE, CIDER, PAPER, LARD, TALLOW, TOBACCO,



Etc., Etc.

We Claim for the BOOMER & BOSCHERT WINE PRESS a Great Superiority over any other in the Market, for the Reasons:

FIRST—That while it is STRONG, and equal to the hydraulic in power, it is of SIMPLE construction.

SECOND—Its power is ACCUMULATIVE, increasing as the substance becomes more dense.

THIRD—It will PRODUCE MORE WINE with the least LABOR, and in the least TIME.

For particulars and prices, address

A. L. FISH & CO.,

9 & 11 FIRST STREET, San Francisco.

OAKLAND Spring Balance Gang Plow.



Patented and manufactured by H. N. Dalton, at the Pacheco Agricultural Implement Works, Pacheco, Cal. Established in 1858. Send for Circular and Pricelist.

GRANGERS' BUSINESS ASSOCIATION,

Incorporated Feb. 10th, 1875. Capital Stock, $1,000,000.

OFFICERS and DIRECTORS:

DANIEL INMAN, (PRESIDENT). AMOS ADAMS, (SECRETARY). THOS. FLINT.
R. C HAILE, (VICE PRESIDENT). THOS. UPTON. G. P. KELLOGG.
JOHN LEWELLING, (TREASURER). I. C. STEELE. W. L. OVERHISER.
O. HUBBELL. D. CAMPBELL.

SHIPPING and COMMISSION HOUSE,

Grangers' Building, - - - - 106 Davis Street, S. F.

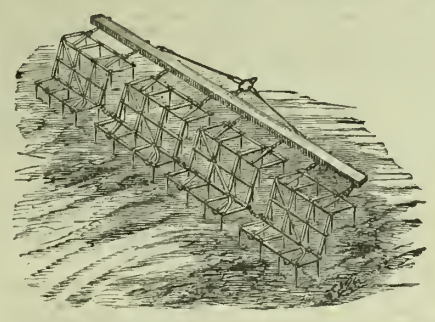
Consignments of Grain, Wool, Dairy Products, Fruit, Vegetables, and other Produce solicited, and advances made on the same. Orders for Grain and Wool Sacks, Produce, Merchandise, Farm Implements, Wagons, Etc., solicited and promptly attended to.

We do a strictly Commission Business, and place our rates of Commission upon a fair legitimate basis that will enable the country at large to transact business through us to their entire satisfaction.

Consignments to be marked Grangers' Business Association, San Francisco. Stencils for marking will be furnished free on application.

DANIEL INMAN, Manager.

IRON SECTIONAL HARROW.



This Harrow was Awarded the First Premium at the California State Fair in 1875.

The undersigned, having purchased the patent right of this Harrow for California, are now manufacturing them in Roseville, Placer County, and would call the attention of Farmers to the superior merits of this Harrow over all others now in use.

As its name indicates, it is made in sections of about three feet in width, each section having four bars, in which the teeth are inserted, and by connecting the sections with links, the Harrow is formed.

Should a Farmer require a Harrow upon his farm to do all kinds of work, he should purchase six sections, which would be suitable for four horses; and would cut 18 feet in width; by disconnecting two sections he will have a two or three-horse Harrow, cutting about 13 feet. One section alone is complete in itself, and suitable for garden work, with one horse. The Harrows are made of the best quality of iron, and with teeth warranted to be steel.

We give a few of the many reasons why we claim superiority for these Harrows over all others in use on this Coast:

First—By the lightness of draft, taking into consideration the amount of work it does.

Second—By working uneven or rolling ground just as well and as evenly as if it was entirely level.

Third—They are made of Iron and Steel, and therefore are not affected at all by sun or rain, or by heat and cold; they are always tight, and ready for use; they are also durable. A farmer purchasing one has a Harrow that will last a life time.

Fourth—The teeth being fastened with a nut and screw into the cross bars, should one break, another can be inserted in a moment. We are making three sizes, all being the same in width, but different in depth and weight only.

Prices, from $12.50 *to* $15.00 *per Section.*

All orders sent to

BREWSTER & CO.,
Roseville, Placer Co.,

Will be promptly attended to, and satisfaction guaranteed in all cases.

CAUTION.

It has come to our notice that certain parties are now making this Harrow in this State, and that several of them have been sent here from the East. Now this is to *caution* all persons against making, selling or buying them, so made and offered for sale, as we shall enforce our rights in relation to the matter, and would call the attention of all persons infringing upon our patent, to the *law* in regard to it.

BREWSTER & CO.

Roseville, July 15th, 1876.

MATTESON & WILLIAMSON'S AMERICAN CHIEF GANG PLOW.



Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

INTERNATIONAL HOTEL

ALL NEWLY FURNISHED,

824 & 826 Kearny St., - San Francisco, Cal.

$1.50 & $2 per day. Free Coach to the House.

H. C. PATRIDGE, - - - Proprietor

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros & Churchman's Horse-Power

[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,
Cor. J and 10th Sts., Sacramento.

Grangers' Bank of California,

42 California Street,

SAN FRANCISCO.

Authorized Capital, $5,000,000.

OFFICERS:

PRESIDENT.....GILBERT W. COLBY.
MANAGING DIRECTOR.....C. J. CRESSEY.
CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

The Bank was opened on the first of August, 1874, for the transaction of general banking business.

HEALD'S BUSINESS COLLEGE,

No. 24 Post Street, SAN FRANCISCO, CAL.

The largest and best Business College in America Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

LADIES' DEPARTMENT.—Ladies will be admitted for instruction in all the Departments of the College.

TELEGRAPHIC DEPARTMENT.—In this Department young men and young ladies are practically and thoroughly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars, E. P. HEALD, President Business College, San Francisco, Cal.

SMITH & WESSON'S

New Model. 38 Calibre. Central Fire. With Automatic Cartridge Ejector



NOW READY.

For convenience, power and accuracy, it is *unequalled.* If your merchant does not keep them, order direct from the Agency, *79 Chambers St.* New York. M. W. Robinson, Gen'l Agent.

A Boy for the Country.

An intelligent lad, 16 years old, wants a permanent home in the country. Address J. B. PORTER, dentist, Oakland, Cal., or at this office.

Lands and Homes for Sale.

IMPROVED FARMS FOR SALE

In CAPAY VALLEY, YOLO CO.,

WITHIN ONE MILE OF THE TOWN OF CAPAY, THE PROPOSED TERMINUS OF THE VACA VALLEY RAILROAD, 16 MILES WEST OF WOODLAND.

One Farm, containing 280 acres of choice valley hill land, good house, barn, granary, etc., and well fenced. Price, $7,000.

One farm adjoining of 100 acres; good house, barn and outbuildings, young orchard—well watered; Cache creek, a never failing clear mountain stream, running through both farms. Price, $3,000.

Also, Town Lots in Capay, soon to be the center of trade and railroad depot for the western and northwestern portion of the county, and also for the quicksilver mines of Lake and Napa counties. Price, $50 to $150 per lot.

TERMS:

One-Half Cash. Balance Secured by Mortgage.

J. W. ALDRICH, Capay, Yolo Co.

FOR SALE,

IN LOTS TO SUIT,

5,000 Acres of the Lake Vineyard Land and Water Association.

These lands are in the great fruit belt of Los Angeles County,—only six miles from the city are peculiarly adapted to semi-tropical fruits, and adjoin the famous Lake Vineyard of Hon. B. D. Wilson. The Southern Pacific railroad runs through the land; convenient to schoolhouse and church; water in abundance, and the water-right is sold with the land. Title perfect. A Map of the tract may be seen at the office of Mayor Beaudry, on Spring street, opposite City Council rooms. References may be made to HON. B. D. WILSON or J. DE BARTH SHORB, at Lake Vineyard, who will take pleasure in showing the lands. Also, to MAYOR BEAUDRY or D. FREEMAN, Los Angeles city.

CALIFORNIA FARMERS' MUTUAL

Fire Insurance Association,

No. 38 California Street,

(GRANGERS' BUILDING,)

SAN FRANCISCO, CAL

Capital..... ..... $200,000 00
Assets, October 15, 1876..... 268,716 52

MUTUAL PLAN.

	AMOUNT.	PREMIUMS.
Risks written to Oct. 1, '76...	$5,181,591.00	$114,445.57
Less Amount Canceled.....	300,644.00	6,297.50
Amount in force, Oct. 1, '76..	$4,880,947.00	$108,148.07
Losses paid.....		$7,251.00

CASH PLAN.

	AMOUNT.	PREMIUMS.
Risks written to Oct. 1, '76...	$2,585,914.19	$51,606.96
Less Canceled and Expired...	976,908.00	$19,538.16
Amount in force, Oct. 1, '76...	$1,609,006.19	$32,068.80
Losses paid.....		$10,153.71

OFFICERS.

J. D. BLANCHAR.....PRESIDENT
I. G. GARDNER.....VICE-PRESIDENT
G. P. KELLOGG.....TREASURER
A. W. THOMPSON.....ATTORNEY
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J. D. Blanchar.....San Francisco
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A. B. Nally.....Santa Rosa
A. W. Thompson.....San Francisco
A. D. Logan.....Colusa
I. C. Steele.....San Mateo
G. W. Colby.....Butte County
A. Wolf.....Stockton
C. J. Cressey.....Oakland
J. O. Merryfield.....Dixon
E. W. Steele.....San Luis Obispo
C. S. Abbott.....Monterey
Dr. T. Flint.....Hollister

Farm property insured at actual cost on the Mutual Plan. Other desirable property insured, and rated according to merit.



LOOK!

ALBERT E. BURBANK, Importer and breeder of Fancy Fowls, Pigeons, Rabbits, Dogs, etc. Also, Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,
43 and 44 California Market, S. F.

DAVIS & SUTTON,

75 Warren St., New York,

Commission Merchants in California Produce.

REFERENCE.—Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A. Lusk & Co., San Francisco, Cal.

THE PACIFIC RURAL PRESS has a larger Circulation than any other Pacific Coast Weekly, independent of a daily issue.

BLOOMINGTON NURSERY, F. K. PHŒNIX, Bloomington, Ill. Price lists free. Four Catalogues, 25c.

Continued from Page 321.

Devon cattle of J. D. Carr. This gentleman and his cattle are well known by the stock men of the State, and therefore the description neither of the one nor the other is needed from us. Of course the most interesting animals of this herd are the two Durham bulls, "Lonan's Lord Oxford and "Duke of Gabilan," for the reason that these animals have been the subjects of much criticism and of opposite opinions by first-class judges, and stock-breeders of the State. Your correspondent had a lengthy interview with Mr. Adam Watson, the experienced herder of Mr. Carr, a man as competent to give an opinion as any one in the State; and whose review of the matter we propose to give in a future number of the PRESS. All these cattle were in splendid condition and were worth the admission price to see. Mr. C. S. Abbott, Wm. Robson and Wm. Ford exhibited fine Durham roan stock (Mr. Carr's being red) which took premiums as will be seen in list of awards.

A Question in Stock Breeding.

Viewed in its relation to the interests of stock farming in this State, Mr. Carr's business energy is to be commended, and his exhibition of taste is to be approved, as illustrated in his herds of pure blooded Durham and Devon cattle. But we regard this stock farming interest as "sui generis," diverse and separate from the common farming interest of the State, and should never be confounded with stock improvement on farms. Stock importation and stock-breeding, as such, is purely and simply a speculative procedure dependent upon the same laws for success as are other mercantile ventures. It has no other relation to true farming than thatit includes cattle and the lands upon which they feed, both of which may be factors in the ultimate products of the farmer's interests.

In making these definitions and drawing these distinctions, we do not mean to detract in the least from Mr. Carr's real and heartfelt interest in the agricultural advancement of this valley, which he has so pre-eminently illustrated in his efficiency as the presiding officer of this agricultural association. We concede to Mr. Carr a high sense of the responsibility of properly and beneficently using his large means, yet we must he just to our opinion that he has not only a large pride in his beautiful stock, but that he also intends and expects to make it pay as a speculation; and while we do not criticise or blame him for this, yet we must say that stock breeding in its value to general farming lies not in this speculative direction. While we award all praise to Mr. Carr in his sphere of judicious money investment, yet we feel that greater commendation should be awarded to such men as Abbott, Ford and Robson, who, notwithstanding the high cost of the experiment, have ventured to make a practical test of these breeds of cattle in their dairies and on their farms, with a view to the valne to the average farmer for milk and beef, and to test the matter of real profit in this direction; or, in other words, to see if a farmer of larger or smaller means would he justified in buying these high priced animals to breed from, just for what extra quantity or quality of milk they would yield, or for the greater quantity of beef or enhanced price that beef would bring in market. The solution of this problem we regard as the true solution of the value of the whole subject. A speculative business requires large money or credit in some stage of its operations. The farmer is supposed to have neither and can never be a speculator in any sense, as he should have nothing aside from the legitimate working of his business. He raises his products and sells them for money, for the simple reason that he cannot get it and does not want to get it before he does this or without he does this.

The closer we approximate to the idea of producing something from nothing, the nearer do we come to the true idea of the working conditions in the direction of results. The farmer's work is an approximate work of creation. The idea of a farm and of a farmer is a very simple one, and consists in a piece of land and a man with seed furnished by the same provident hand that has furnished the soil to cover it, going forth and with his own hand, assisted by whatever appliances his ingenuity may devise, planting this seed, and after careful tillage reaping and garnering the abundant fruits which a beneficent Providence may assure to honest labor.

Now, all values of all processes whatever which are employed in this work are embodied, represented and illustrated in the value of the products themselves; therefore, whenever the ordinary farmer engages in stock-raising or any other interest as connected with his seed-sowing and seed-harvesting, he secures a legitimate advantage, only as he either renders more firm the value or else enhances the value of his vegetable products. Whatever is beyond this is not legitimate farming. It may be merchandising or it may be something else, according to the direction it may take. The value of stock and the profits of stock can only be measured by the enhanced values of farm products—grain, hay and vegetables—marketed by, and in the average, sales of this stock. Therefore, when we speak of stock as a farming interest we should do so in abeyance to the law above stated, and we value the exhibition of the last named stock as connected with true farming, and rejoice that these gentlemen and others who may hereafter engage in farm stock raising, are encouraged by the awards bestowed at this fair, to believe that improvement in stock is a legitimate and therefore a paying interest. In my next I will continue my notes on the fair.

Watsonville, Nov. 6th.

[We confess we do not quite see the necessity of our correspondent's argument on stock farming. While we advocate and approve of stock breeding only on the ground of utility, and condemn speculative breeding without reference to utility as devoid of real value, still it is hard to draw out the distinction as fine as our correspondent attempts to do it. What is understood by stock "importation and speculation" is buying up a lot of cattle, bringing them into the State and selling them with little or no reference to their truth of pedigree or useful qualities. When Mr. Carr imports his thoroughbreds, crosses them upon native stock and sells a lot of fine grade steers to the butchers, he is engaged in legitimate agricultural production and improvement just as certainly as the farmer who imports seeds and reaps the rewards of a superior crop of grain or vegetables. And when Mr. Carr imports his thoroughbreds and raises bulls which other farmers can use to improve their stock, he is doing a similar legitimate work. Of course Messrs. Abbott, Ford and Robson, if they give cattle a more thorough test in the way of practica value than Mr. Carr, are entitled to higher consideration from the general farmer. Because a man has capital invested in his agricultural enterprises and has credit, it does not exclude him from the honors of legitimate production—all farmers have these aids to a greater or less degree. Because the business is carried on to make money it is not less agricultural, because farming cannot exist long if it is not profitable. While we fully sympathize with our correspondent in his honest endeavor to put the honor in breeding upon those who merit it for their efforts to develop and determine the practical value of stock, we do not think it necessary to make distinctions unless it can be shown that some parties are breeding and selling a lot of cattle which are not fitted for the purpose claimed for them. If this can he shown we are ready to make sharp distinction and condemnation, but until this is done we believe the true course is to encourage all efforts which have in them the quality of enterprise and improvement.—EDS. PRESS.]

Monterey Fair Premium List.

HORSES—ROADSTERS.—4-yr-old stallion, Tom Vornon, David Bothwell, $10; 3-yr-old stallion, Buena Vista, H. Corey, $5; 4-yr-old mare, Snip, H. DeGr ot, $10; 3-yr-old mare, Birdie, Kilburu Bros., $5. Special—John Boice, 2-yr-old stallion, New Republic, dip; John Boice, I-yr-old stallion, Frank Doutrick, dip; Geo. Pomeroy, 6-yr-old gelding, Big Jim, dip. Horses for all purposes—3 yr-old stallion, Vermont, Jr., J. D. Carr, $10; I-yr-old stallion, Thos. Elmo, J. D. Carr, $5; 3-yr-old mare, Flora, I. J. Monroe, $10; 2-yr-old mare, Dolly, Jr., H. Corey, $5; 1-yr-old mare, Rosa, H. Corey, $5; sucking colt, Miss Iverson, J. B. Iverson, $5. Special—Kilburn Bros., 4 yr-old horse, Black George, dip; E. F. Harris, span of mares, Belle and mate, dip; A. J. Ougheltree, colt, S. J. Tildeh, 7-months old, dip; N. L. Allen, draft horses, Pete and Maggie, dip; Milton Withers, 3-yr-old gelding, George, dip; B. V. Sargent, 2-yr-old horse, Silver Winner, dip; Mr. Willet, imported horses, dip, Stallions—3-yr-old stallion, Bismarck, H. DeGroot, $10. Mares—4-yr old mare with colt, Fanny, J. G. Sanchez, $7.50. California draft horses—3-yr-old stallion, Black Dragon, John Boice, $10; 4-yr-old mare, Fannie, J. C. Storm, $10; 3-yr-old mare, Rebecca, J. C. Storm, $10; 2-yr-old mare, Susie, John Boice. Carriage horses—span, Frank and Coolie, J. C. Storm, $10; single buggy horse, Curley, Wm. Robinson, $5. Sweepstakes—Best stallion of any kind or age, Thos. Elmo, J. D. Carr, $10; Best mare of any kind or age, Coolie, J. C. Storm, $10; second best mare, Fannie, J. G. Sanchez, $5; Silver Winner, B. V. Sargent, honorable mention.

MULES.—Best span of mules, J. M. Barbree.

CATTLE.—Durham—C. S. Abbott, 3 yr-old bull, $10; bull, I-yr-old, Louan's Lord Oxford, J. D. Carr, $7.50; second best bull, I-yr-old, J. D. Carr, Duke of Gabilan, $5; bull calf, Geneva's Oxford, J. D. Carr, $5; second best bull calf, Salinas, Wm. Robson, $3; cow, 4-yr-old, Pet of Geneva, J. D. Carr, $10; second best cow, 4-yr old, Highland Mary, Wm. Ford, $5; cow, 3-yr-old, Third Maid of Monterey, J. D. Carr, $7.50; cow, 2-yr-old, J. D. Carr, Hope 23d, $7.50; cow, I-yr-old, Hope 24th, J. D. Carr, $5. Devons—bull, 3-yr-old, Duke of Leicester, J. D. Carr, $5; cow, 3-yr-old, Victoria, J. D. Carr, $5; best cow, 3-yr-old, Victoria 2d, J. D. Carr, $3; honorable mention is made of 3-yr-old cow, Fairy 2d, heifer calf, 10 months old, Victoria 3d, and heifer calf, 6 months old, Victoria 4th—all belonging to J. D. Carr. Herd of Cattle—bull, Louan's Lord Oxford, and five cows, J. D. Carr, $10.

ANGORA GOATS.—Buck, Soledad, C. P. Bally, $5. Ewe, Queen of Monterey, C. P. Bailey, $5. Herd, C. P. Bailey, $5.

SHEEP.—SPANISH MERINO—Merino ram, J. S. Carr, $5. Second best Merino ram, J. S. Carr, $4.50. Merino lambs, J. S. Carr, $5. Merino ewes, E. Sherwood, $5. Second best Merino ewes, J. S. Carr, $2.50. SOUTHDOWNS.—Southdown ewe, J. S. Carr, $5. Five Southdown lambs, J. S. Carr, $5.

SWINE.—Boar, J. R. Hebbron, $5. Sow, J. R. Hebbron, $3. Sows and pigs, J. S. Carr, $3.

POULTRY—Black Breasted Red Game, T. G. Harris, $2. Sumatra Game, T. G. Harris, $2. Irish game cock and hen, C. C. Wilson, $2. Pair of ducks, J. H. Harris, $2. Buff Cochin China chickens, A. Salisberry, $2. Second best Buff Cochin China, Z. Hebert, $2.

FARM PRODUCTS —J. C. Storm, oats, $2.50. H. Whisman, corn in stalk, dip. J. H. Harris, Cal cured tobacco, $2.50. W. H. Wilson, 12 varieties apples, $5; four varieties pears, $5. W. F. Treat, lot of pears, $2.50. H. Whisman, squashes, $1. H. Corey, potatoes, $1. Jas. Houston, nine varieties of apples, $2.50; hops, $2.50.

PLANTS AND FLOWERS.—Coll ferns and leaf plants, Miss Susie Matthews, dip. Parlor bouquet, Mrs. S. W. Conklin, dip. Vase bouquet, Mrs. J. P. Stanley, hon mention. Seventeen varieties geraniums, Mrs. E. M. Matthews, hon mention. Vase bouquet, Mrs. E. M. Matthews, fav mention.

FLOUR.—Tobey & Hudson, (Empire Mills), flour, dip.

DAIRY PRODUCE.—Butter, H. Corey, $5.

BREAD AND PASTRY.—Miss Belle Hebbron, four loaves bread, dip. Mrs Hebbroo, three pies, dip.

AGRICULTURAL IMPLEMENTS —Road scraper, Treat & Allen, $4.50. Seed sower, T. G. Harris, $2.50. Hay rake (Cout's), T. G. Harris, $5. Gang plow (Eureka), B. E. Cahoon & Bro., $5. Sulky single plow, B. E. Cahoon & Bro., $5. Field cultivator, M. C. Hawley & Co., $5. Mower, (Buckeye), M. C. Hawley & Co., $5. Seed drill, M. C. Hawley & Co. Straw burner engine, Brown Bros. Hardwood Diamond harrow, Brown Bros., $5. Self-rake reaper, (McCormick's), Farmers' Union, $5. One-horse cultivator, Farmers' Union. Champion fanning mill, Farmers' Union. Well-borer, E. Hoagland.

WAGONS AND CARRIAGES.—Family carriage, J. B. Iverson, $7.50. One-horse open buggy, E. H. Faneuf, $5. Freight wagon, J. B. Iverson, $5. Straw-cutter, Farmers' Union, dip. Horse sulky, J. B. Iverson, dip.

IRON AND BRASS WORK.—Brown Bros., best exhibit machine work (iron), $5; best exhibit brass work, $2.50.

HARNESS AND SADDLERY.—M Hughes, best exhibit of harness and saddle work, $7 50; two sets of team harness, $5; two sets of Cal made single harness, $5; set Cal double harness, $5; lady's saddle, $3; gent's saddle, $3.

DOMESTIC MANUFACTURES.—Vanderhurst, Sanborn & Co., Cal blankets, $7.50; Mrs. McCoy, crochet quilt, $3; Mrs. Braffit, log cabin quilt, $3; C. P. Bailey, exhibit of gloves, $5; exhibit robes and mats, dip; Mrs. Dixon, patchwork quilt, $3; Mrs. M. Smith, silk log cabin quilt, rec for dip; Mrs. M. C. Colwell, two pairs handmade gloves, rec for dip.

EMBROIDERY, NEEDLE AND FANCY WORK.—Miss Mattie Young lace handkerchief, dip; pillow sham, dip; pin cushion, dip; Mrs. S. W. Conklin, lamp mat, dip; crochet tidy, dip; Mrs. W. St. John, moss wreath, dip; Mrs. T. V. Dixon, railroad canvas tidy, dip; air castle, dip; match safe, dip; sofa cushions, dip; Mrs. J. H. Harris, parlor mottoes, dip; Mrs. S. L. Dean, needle work, dip; Mrs. J. C. Kelly, hair work, dip; Mrs. F. Mauk, slipper holder, dip; card holders, dip; Mrs. W. J. Spicer, globe alum bask t, dip; Grossmayer & Co.; silk and embroidery, dip; Mrs. C. D. Brown, knit shawl, dip; 2 pairs netted curtains, dip; worsted tidies, dip; Mrs. W. S. Johnson, collection of Cal birds, dip; Miss Annie Beaven, netted shawl, dip; Mrs. Juan Jackson, beaded cigarette case, dip; Mrs. J. A. Cook, straw work, dip; Miss E. B. Post, feather and worsted wreaths, dip; Miss M. A. Post, monochromatic and crayon pictures, dip; Mrs R. S. Robbins, wax skeleton, dip; shell and worsted work, dip; hair work, dip.

CABINET WARE. — Parlor furniture, Vanderhurst, Sanborn & Co., $5; second best parlor furniture, J. P. Stanley, dip; chamber furniture, Vanderhurst, Sanborn & Co., $5; second best chamber furniture, J. P. Stanley, dip; spring mattress, J. P. Stanley, $3; spring bed, Clark, Rickoff & Co., $3.

PAINTING AND GRAINING.—Brower & Dunham, sign painting, $5; carriage painting, dip.

FINE ARTS,—M. C. Thielmann, farm house design, dip; design of barn, dip; architectural design, dip; Rev. Hugh Curran, oil painting, (Castroville and vicinity, by Trouset,) dip.

SPECIAL AND DISCRETIONARY.—Homer Williams & Co., Yerba Buena bitters, dip; G. M. Pursell, improved Humboldt washer, dip; Mrs. D. A. Dyer, fluting and pleating machine, dip; J. P. Stanley, collection of minerals, dip; St. John & Merchant (City drug store), 11 dips for medicines.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

FOR WEEK ENDING OCTOBER 31ST, 1876.

NEWSPAPER FILE HOLDERS.—Alfred T. Dewey, Oakland, Cal.

EXPLOSIVE COMPOUNDS.—Egbert Judson, S. F.

MECHANICAL POWER.—Henry J. Gastman, Eureka, Cal.

COMPOUND STEAM BOILERS AND ENGINES.—William Hanna, Gilroy, Cal.

POCKETS FOR GARMENTS.—Antonio Diaz Pena, S. F.

TAAPS FOR WATER PIPES AND CLOSETS.—Fred'k Pohley, S. F.

ROW LOCKS.—Eugene Spedden, Astoria, Ogn.

OSCILLATING VALVES.—George W. Van Deren, San Bernardino, Cal.

ADJUSTABLE SCHOOL DASKS.—Bruce Wolverton, Rohnerville, Cal.

RAILROAD SWITCHES.—Asa E. Hovey, S. F.

CAR-BRAKES.—Asa E. Hovey, S. F.

OAK-ROASTING FURNACES.—Henry J. Huttner, S. F., and Robert Scott, New Almaden, Cal.

——The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

Pluck.

On the morning of November 1st, the shop of the Sweepstakes plow company at San Leandro was partially destroyed by fire. At 12 o'clock the insurance adjusters examined the loss and on the morning of November 2d the employees commenced work again with half a roof to cover them while re-building. The demand for the justly celebrated Eureka gang plow is so great that no time can be wasted. Letters and telegrams pour in and our former friends begin to find that though other gangs can be purchased for less money, that the Eureka is the cheapest and best in the end. Built under the personal supervision of F. A. Hill, the inventor, of the best materials and by experienced workmen, they stand "the standard gang," which others pattern after without equaling—a home invention, built in a home shop and by home mechanics. We commend this to our Grangers and can honestly say that the Sweepstakes plow company deserve their support and patronage. Beside the Eureka gang plow they manufacture spring wagons, headers, seed sowers, single plows and numbers of articles used by the farming community. Their agency in this city is with Baker & Hamilton, Nos. 13 to 19 Front street, who will he pleased to send descriptive circulars to any address upon application. * * *

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S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Wednesday, Nov. 8th, 1876.

The week has been broken by the general election day. The closing days of the campaign turned men's minds away from business, and on election day the stores and exchanges were closed and no transactions were made. Onr report will therefore exhibit less than the usual trade life in nearly all lines.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	Cal. Average.	Club.
Thnrsday	10s 3d@10s 6d	10s 6d@10s 9d
Friday	10s 3d@10s 6d	10s 6d@10s 9d
Satnrday	10s 3d@10s 6d	10s 5d@10s 9d
Monday	10s 3d@10s 6d	10s 5d@10s 9d
Tnesday	Election	Holiday.
Wednesday	10s 2d@10s 5d	10s 4d@10s 8d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	9s 8d@10s —	10s 4d@10s 9d
1875	10s 11d@11s 2d	11s 4d@11s 8d
1876	10s 2d@10s 5d	10s 4d@10s 8d

It will be noticed the cable has shown a weakness and downward tendency during the week.

The Foreign Review.

LONDON, November 6th.—The *Mark Lane Express*, in its weekly review of the British commercial trade, says: The cold but seasonable weather of the past week has been favorable for field labor. A large quantity of wheat has been sown under favorable circumstances. The Potato disease has not assumed alarming proportions, though certain localities have suffered already. Irish advices are less gloomy. At the principal provincial markets holders of Wheat have seriously resisted any decline. In London a slight concession was necessary to effect sales. Foreign Wheat was not so firm, and part of the advance produced by political influences has been lost. Imports last week were universally light. Although stocks are still large, the rate of importations is far less than the estimates of the requirements of the country, and considerable diminution reported from Liverpool attests the inroads made into the stocks. Maize maintains about the same rates; other feeding stuffs are slightly cheaper. It is not unlikely that this decline will shortly be more than covered in consequence of increased winter consumption. The floating cargo trade has been quiet in the absence of arrivals at calling ports.

Freights and Charters.

Freights have been dull during the week, and the list of engagements is the smallest in some time, says the *Commercial News*. Wheat freights are weak at the close, and we quote £2 17s 6d to Liverpool direct, at which figure a small iron bark was taken up yesterday. Some ships are, however, still held at extreme figures, and among others there is a disposition to accept side business on the coast for the purpose of being on hand if a favorable turn occurs in the market. The list of engaged wheat tonnage in port still remains quite large —58,377 tons—but the vessels that are ready are loading rapidly. The disengaged tonnage now foots up 48,609 tons and the miscellaneous 7,694. The engagements for the week have been: Br bark Zoe, 742 tons; wheat to Liverpool; £2 17s 6d. Ship North American, 1,584 tons; wheat to Liverpool; prior to arrival, £3 2s 6d. Ship Ollve S. Southard, 1,193 tons; wheat to Liverpool; prior to arrival, £3. Bark Philip Fitzpatrick, 582 tons; barley to Philadelphia; $12. Br bark Comorin, 803 tons; wheat to Cork U K; prior to arrival, £2 17s 6d. Ger bark Fulda, 860 tons; wheat to Cork for Orders; prior to arrival, £3 5.

The Wheat Crop of the U. S.

WASHINGTON, Nov. 3d.—The Agricultural Department's returns for October indicate a reduction of the wheat crop of nearly one-sixth, while the quality is somewhat superior. Every section in the Union indicates a reduced product, except the Middle States, which increased two per cent. The New England States three or four per cent; The South Atlantic States seven per cent; the Southern inland States five per cent.; States north of the Ohio river 14 per cent; States west of the Mississippi river 27 per cent.; the Pacific States nearly two per cent. These figures point to a yield of about 245,000,000 bushels. The rye crop of 1876 is reported four per cent less than in 1875, but its quality averages somewhat about that crop. The oat crop of 1876 shows a falling off of 27 per cent. since last year. Every section of the Union is deficient. The grain crop is nearly an average.

Oregon Wheat.

The *Oregonian* says: The recent heavy rains have decreased the receipts at the principal warehouses up the valley, and as it is not likely that the roads will be in good condition for hauling before spring, it is said that of that which is still unmoved on the farm, and which embraces more than one-half of the crop, the larger portion will be held till spring.

Chicago Grain Market.

CHICAGO, Nov. 5th.—The week has been one of only fairly active business on 'Change, and prices have receded somewhat from those of last Saturday. There are no new features in the grain trade, and few venture predictions as to the future course of the markets, believing that it depends almost entirely on the condition of the Eastern question. The markets here respond readily to the wild rumors that are set afloat by speculators, and are in such an unsettled condition that legitimate trading is comparatively small. The closing price of Wheat yesterday was $1.08¾; of Corn, 42c; Oats, 30½c. Receipts during the week were—Wheat, 688,000 bushels, Corn, 749,000; against last year, Wheat, 738,000, Corn, 431,000, Oats, 450,000 Shipments—Wheat, 426,000 bushels, Corn, 1,143,000, Oats, 288,000; against last year, Wheat, 926,000, Corn, 856,000 Oats, 443,000. Stocks have been piling up at Milwaukee much more than here, and this feature will tend to lower prices, unless other influences of a contrary kind are soon manifest. Rye and Barley have receded in value, Rye selling to-day at 59c and Barley at 76c. Provisions generally are steady, with not very much doing.

Eastern Wool Markets.

NEW YORK, Nov. 4th.—The Wool market during the week has been rather quiet, the want of liberal purchasers and the near approach of the election being the chief causes. Holders, however, continue firm, having full confidence in the future of the market, and a disposition is everywhere shown to hold rather than sell at anything below market rates. Sales for week embrace 138 bales Cape, at about 13c; 14,200 lbs Mexican, 12@18c; 462 bales California Spring, burry and slightly do, 16@26½c; 13,000 lbs Fall do, 16@26½c; 4,000 lbs Oregon, 35c; 1,000 lbs choice Eastern Texas, 27c; 124,000 lbs Western do, 20@26c; 75,000 lbs X and XX Ohio Fleece, 46@48c; 50,000 lbs Georgia, 2,000 lbs unwashed Ohio, 2,000 lbs do Wisconsin, 117 bags Super Pulled, and 12,000 lbs short extra do, on private terms.

BOSTON, Nov. 4th.—The activity in the Wool market continues, and favorable advices, reporting a decided advance in fine Wools in the English market, had a tendency to strengthen ours. Fine Fleeces, in consequence, are looked upon as a safe article to hold, and purchases can only be made at full current rates. The market is firm for other kinds. Sales of Ohio and Pennsylvania have been 181,000 lbs medium and X at 40@45c; XX at 46@47½c; choice Pennsylvania XX and above at 48½c. Michigan is in fair demand and firm. Sales have been, 134,000 lbs X, 38½@40c; Wisconsin, 40@42c; XXX Vermont, 39c; X and No. 1 New Hampshire, 38@39c. Combing and Delaine are in demand, and prices are steady and firm. Sales have been 262,000 lbs washed at 44@45; unwashed, 35c. Sales of Delaine were principally from 47c to 48c. California Wool is in good demand. New Fall has been arriving quite freely, and sales of this description have been 463,000 lbs, at 17@26c. Sales of Spring have been 184,500 lbs, 13½@19½c. Pulled is in fair demand and firm; sales, 140,000 lbs at 35@45c.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week Oct. 17.	Week Oct. 25.	Week Nov. 1.	Week Nov. 8.
Flour, qnarter sacks	34,972	42,711	111,793	94 056
Wheat, centals	424,611	433,997	514,389	273.108
Barley, centals	83,491	53,119	41,378	48,476
Beans, sacks	2,224	2,584	6,248	12,581
Corn, centals	1,742	2,998	1.398	8.800
Oats, centals	3,846	3.091	7 380	22,321
Potatoes, sacks	13,970	16,490	21,960	40,600
Onlons, sacks	2,232	1,859	1,427	1,684
Wool, bales	6,619	8,383	6.291	4,331
Hops, bales	522	989	1,358	1,680
Hay, bales	1,733	1,379	996	706

Bags—The situation in Bags is still unchanged. The stock overhanging the market does not yet fall. There have been during the week small auction sales of the larger sized Bags; viz.: 13,000 24x36 at $8 62 per hundred, and 12,000 23x40 at $8.80 per hundred. There were sales for cash and the purchases were made by dealers. The quotation for standard Wheat Bags is still 10@11c.

Barley—Another ship has been chartered to carry Brewing Barley to New York. The receipts of Barley are large, but not placed upon sale and prices are not affected. We note sales: 450 sks Coast Feed, 95c; 225 do light Brewing, $1.10, both silver; 1,000 do do, $1.12½; 10,000 ctls Bay Chevalier, $1.50; 4,000 sks choice Chevalier, for shipment, $1.40; 1,000 do good Brewing, $1 12½, gold; 200 do Bay Feed, 97½c; 350 do Coast do, 95c; 500 do do, 93¾c per ctl, silver; 1,000 sks Coast Feed, 90c, silver; 800 do choice Brewing, $1.10, gold; 1,000 sks Coast Feed, 90c; 850 do do, 93¾@95c; 200 do do, 97½c; 1,000 do do, 95c; 500 sks Coast Feed 92½c, silver; 1,000 do good Brewing, $1.12½, gold, per ctl.

Beans—Receipts of Beans are largely increased. Prices are unchanged. We note sales: 100 sks small White at $2 per ctl, silver; 100 do do, $2.15, gold.

Corn—Corn is abundant at former prices. We note sales: 1,000 sks large and small in lots at $1.12½, silver; 525 sks small Yellow, $1.15, silver; 250 sks large Yellow, $1.15; 50 do small do, $1.12½; 100 sks Mexican, $1.20, silver; 200 sks large Yellow, $1.15, silver per ctl.

Dairy Produce—The market is devoid of new features. The outside price for Point Reyes last week, 52½c, was caused by the stormy weather, which held out supplies. The top price for this and other fancy brands seems to be 50c this week. Cheese is unchanged.

Eggs—Former rates prevail.

Feed—Hay is advancing and the range is now quotable at $8@16.25, a sale of choice Wheat being made at the latter figure. We note sales: 29 tons fair Wheat, Oat and Barley, $13.50; 11 tons good Wheat and Oat, $13; 30 do choice Wheat, $14.50; 50 tons choice Wheat, $16.25, a top price; 10 tons Oat, $10.50; 40 tons choice Wheat, $15 per ton.

Fruit—The general market is unchanged.

Hops—Hops are still held at 30c in some cases. Some commission merchants hold consignments at 28c without takers. There seems to be at present a lower feeling. Emmet Wells reports the New York market for the week ending October 27th, as follows:

Since our last, the market has ruled steady, with a good demand, both for export and consumption. The inquiry is still for choice Hops only, anything "off" in quality being for the present neglected. Brewers have been buying more freely, under the belief that choice Hops are about as cheap now as they are likely to be for some time to come; besides, many of them are getting short of supplies and are compelled to buy. In the interior 32 and 33c appears to be the ruling price for choice Hops. Many growers, who two weeks refused 35c and over for their Hops, would now be glad to have the offer repeated, but, without a livelier export demand, we can hardly expect better prices. California, Oregon and Washington Territory Hops will take the lead in prices this season on account of their superior picking. Californians are quotable at 3 @38c.

Oats—Oats have sold at an advance for choice heavy Milling; an extreme of $1.95, silver, being noted. We quote sales: 150 sks poor Feed, $1.50, silver; 200 do fair Feed, $1 70, half silver; 300 do Milling, $1.82½@1.85; 200 sks bright Feed, $1.67½; 200 do Coast do, $1.65; 175 do Oregon do, $1.75; 300 do Bay Feed, $1.70 per ctl, all half silver; 200 sks Milling, 400 ctls do, 100 sks heavy English, all $1 90, gold; 200 ctls Milling, $1.95, silver.

Onions—The Onion market is fully supplied and prices remain low. We note a sale of 130 sks good Alviso at 50c per ctl. Union City are selling at an average of 60c per ctl.

Potatoes—Petaluma and Caffey Cove Potatoes are reduced. The receipts of all sorts have been heavier than ever known before. Sweet Potatoes are quotable down to 50@62½c per ctl. Other prices may be found in our tables.

Poultry and Game—Poultry is a little improved in rates, as may be seen by our quotations. Game is plenty and prices are stationary.

Provisions—The market for fresh Meats is good and the supply is large. Mutton sheep are abundant, owing to the destruction of the stubble feed by the rains. Nevada cattle are arriving freely and prices are low, owing to the poor quality of much of the stock. Cured Meats are still active at quotations.

Rye—Rye is difficult to sell at quotations, although some is still held as high as $1.60.

Vegetables—There is no particular change, except the gradual improvement in quotations for fresh table stuff, which may be seen in our tables.

Wheat—Wheat is firmly held. Sales for the week have been as follows: 50 tons shipping at $1.61¼ per ctl; 50 tons choice Milling at $1.77½ per ctl; 40,060 ctls Shipping, in two lots, delivered at Oakland at $1.71½; 20,000 do do, delivered at Vallejo, at $1 70; 200 do choice coast, $1.70; 300 sks superfine, $1.55; 300 do do, $1.60; 430 do fair Shipping, $1.72½; 500 do do, $1.70; 1,000 do do, $1.75; 3,500 ctls choice Milling, $1.80 per ctl; 430 sks at 1.72½; 300 do, $1.60; and two carloads choice Milling at $1.80 per ctl, gold; 1,500 sks choice Milling, $1.80; 460 do choice Shipping, $1.70; 800 do good do, $1.65; 1,467 sks Milling at $1.77½ per ctl; 330 do, $1.75 per ctl.

Wool—Local prices are unchanged and the trade proceeds quietly without notable features. We note sales of 37,500 lbs San Joaquin, fall free, at 14c; 14,700 do do, burry, 10c; 90,000 fall choice, 13@16c; 13,000 Oregon, 26¼c.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., Nov. 8, 1876.

BEANS.

Bayo, ₱ ctl	2 50	@	2 75
Butter	1 50	@	1 87½
Pea	2 00	@	2 50
Red	3 00	@	3 25
Pink	2 75	@	3 00
Sm'l white	2 00	@	2 10
Lima	1 75	@	2 00

BROOM CORN.

Common, ₱ lb	2	@	2½
Choice, do	3	@	4

COTTON.

Cotton, ₱ lb	15	@	18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	30	@	45
Point Reyes	50	@	—
Pickle Roll	32½	@	35
Firkin	25	@	32½
W'st'n Reserve	16	@	25
New York	—	@	—

CHEESE.

Cheese, Cal., lb	10	@	15
do Old	—	@	—
Eastern	12½	@	15

EGGS.

Cal. fresh ₱ doz	45	@	50
Ducks'	40	@	—
Oregon	40	@	4 ½
Eastern	21	@	30

FEED.

Bran, per ton	16 00	@	—
Corn Meal	27 50	@	—
Hay	8 00	@	16 0
Middlings	22 50	@	—
Oil cake meal	—	@	33 50
Straw, ₱ bale	55	@	60

FLOUR.

Extra ₱ bbl	5 00	@	5 75
Superfine	4 50	@	5 00
Graham, ₱ bbl	4 50	@	4 75

FRESH MEAT.

Beef 1st quality lb.	4½	@	6
Second do	3½	@	4½
Third do	2½	@	3½
Mutton	4½	@	5
Pork, undressed	6	@	6½
do, dressed	8¾	@	8¾
Veal	5½	@	6
Milk Calves	7	@	8½

GRAIN, ETC.

Barley, feed oil	90	@	95
do brewing	1 05	@	1 12½
Chevalier	1 30	@	1 50
Corn, White	1 12½	@	1 15
do Yellow	1 10	@	1 15
Oats	1 40	@	1 65
Milling	1 70	@	1 85
Rye	1 55	@	—
Wheat shipping	1 65	@	1 71½
do milling	1 75	@	1 80

HIDES.

Hides, dry	15½	@	16
do wet salted	6	@	7½

HONEY, ETC.

Beeswax, per lb	25	@	27½
Honey in comb	10	@	12½
do Strained	6	@	8

HOPS.

New crop	25	@	28

NUTS—Jobbing.

Alm'ds b'rd sh'l lb	8	@	—
do, soft sh'l	14	@	16
Brazil do	14	@	16
Cal. Walnuts	12	@	14
Chile Walnuts	11	@	12½
Pecanuts	17	@	18
Peannts per lb	8	@	9
Filberts	15	@	16

ONIONS.

Union City ctl	—	@	60
Stockton	55	@	65

POTATOES.

Petaluma, ₱ ctl	80	@	85
Salt Lake	—	@	—
Humboldt	—	@	—
Half Moon bay	75	@	1 00
Cuffey Cove	—	@	1 00
Early Rose new	60	@	75
Sweet	50	@	62½

POULTRY & GAME.

Hens, per dz	8 00	@	9 00
Roosters	5 00	@	7 00
Broilers	4 00	@	5 00
Ducks, tame, dz	7 00	@	9 00
Geese, per pair	1 75	@	2 25
Wild Gray dz	2 00	@	2 50
White	1 00	@	1 25
Turkeys, Live, lb	16	@	18
do Dressed	18	@	20
Quail, per doz	1 25	@	1 50
Snipe, Eng., doz	2 00	@	2 25
Doves, per dozen	50	@	57
Rabbits	1 00	@	1 25
Hare, per doz	2 00	@	2 50
Venison ₱ lb	7	@	9

PROVISIONS.

Cal. Bacon, L't, lb	16	@	16½
do Medium	15	@	15½
do Heavy	—	@	15
Lard	13½	@	15½
Cal. Smoked Beef	11	@	12½
Eastern do	—	@	—
East'rn Should's	—	@	12
Hams, Cal	15	@	15½
do Armour	—	@	—
do Worster's	—	@	19
do Dupee's	19	@	19½
do Davis Bros'	—	@	19

SEEDS.

Alfalfa, Obile lb	9	@	13
do California	14	@	16
Canary	10	@	12½
Clover Red	—	@	22
do White	50	@	55
Cotton	6	@	10
Flaxseed	—	@	3½
Hemp	12½	@	—
Italian Rye Grass	25	@	30
Perennial do	20	@	30
Millet	10	@	12
Mustard, white	5	@	6
do, Brown	3	@	3½
Rape	5	@	8
Ky. Blue Grass	30	@	—
do 2d quality	29	@	—
Sweet V Grass	—	@	75
Orchard do	30	@	35
Red Top do	—	@	25
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	20	@	25
Timothy	11	@	13

TALLOW.

Crude, ₱ lb	5	@	6
Refined	8¾	@	9

WOOL, ETC.

FALL—

Free	12	@	14
Choice	14	@	16
Northern	17	@	21
Burry	10	@	16
Oregon Eastern	21	@	—
do Valley	25	@	—

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., Nov. 8, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M	25 00	@	30 00
Tahiti, do	—	@	—
Cal. do	—	@	—
Limes, Mexican, ₱ M	10 00	@	12 50
Malaga Lemons, ₱ bx	—	@	—
Cal. ₱ 100	2 00	@	2 50
do Sicily ₱ b'x	14 00	@	—
Bananas, ₱ bnch	2 00	@	3 00
Cocoanuts, ₱ 100	6 00	@	7 00
Pineapples, ₱ dz	—	@	—
Apples, ₱ bbl	50	@	1 50
Apricots, lb	—	@	—
Blackberries cse	—	@	—
Cherries ₱ lb	—	@	—
Plums lb	2	@	3
Prunes lb	2	@	4
Figs	5	@	6
Gooseberries	—	@	—
Huckleberries	—	@	—
Strawber's ₱ cs.	8 00	@	10 00
Pomgranates	—	@	—
Raspberries	—	@	—
Currants, ₱ os.	—	@	—
Cranberries bbl.	14 00	@	15 00
Peaches, ₱ lb	5	@	9
Pears, ₱ bx	50	@	1 50
Crab apples, ₱ lb	2	@	3
Grape ₱ box	3	@	50
Rose of Peru	50	@	75
Muscat	50	@	1 00
Black Hamburg	50	@	75
Tokay	75	@	1 00
Quinces, box	1 00	@	1 25

DRIED FRUIT.

Apples, ₱ lb	5	@	6½
Pears, ₱ lb	8	@	10
Peaches, ₱ lb	5½	@	7½
Apricots, ₱ lb	10	@	12½
Plums, ₱ lb	3	@	4
Pitted, do ₱ lb	—	@	13
Raisins, imported	3 25	@	3 75
Cal. Raisins box	1 50	@	2 75
Black Figs, ₱ lb	7	@	10
White, do	12½	@	15
Prunes	12½	@	17
Citron	28	@	30
Zante Currants	9	@	10

VEGETABLES.

Asparagus ₱ lb	—	@	—
Beets ₱ ctl	—	@	60
Cabbage, ₱ 100 lbs	50	@	60
Carrots, ₱ 100 lbs	50	@	62½
Cauliflower, doz	50	@	—
Celery, doz	50	@	—
Garlic, ₱ lb	2½	@	3
Green Peas ₱ lb	4	@	4½
Green Corn ₱ doz	10	@	18
Sum'rSquash ₱ box	—	@	1 25
Marro'fat Squash, tn	8 00	@	9 00
Artichokes, ₱ doz	—	@	—
String Beans, ₱ lb	3	@	4½
Lima Beans	3½	@	—
Parsnips	—	@	60
Shell Beans	1½	@	2
Peppers, green, bx	50	@	75
Cucumbers, ₱ box	—	@	75
Tomatoes, box	25	@	50
Egg Plant, box	1 50	@	—
Rhubarb box	—	@	—
Lettuce, doz	10	@	—
Turnips, pr ctl	50	@	62½
Watermelons doz	75	@	1 25
Canteloupes do	60	@	7

RETAIL GROCERIES, ETC.

WEDNESDAY, M., Nov. 8, 1876.

Butter, Cal. ch'ice	50	@	60
Cheese, lb	18	@	30
Eastern	25	@	30
Lard, Cal., lb	—	@	18
Eastern	20	@	25
Flour, ex. fam, bl	6 25	@	6 50
Corn Meal, lb	2½	@	3
Sugar, wh. crsh'd	12½	@	13½
do lt. brown, lb	8	@	9½
Coffee, green, lb	23	@	35
Tea fine blk,	50, 65, 75	@	1 00
Tea finest Jap,	55, 75, 90	@	100
Candles, Adamant'e	15	@	25
Soap, Cal., lb	7	@	10
Rice, lb	8	@	12½
Yeast Powders, dz	1 5	@	2 00
Bowen Bro. large can per doz	5 00	@	—
Small, do	2 50	@	—
Bowen's Cream Tartar lb	—	@	75
Can'd Oysters, dz	2 00	@	3 50
Syrup, S F Gol'n	75	@	1 00
Dried Apples	10	@	12½
Dr'd Ger. Prunes	12½	@	14
Dr'd Figs, Cal	9	@	10
Dr'd Peaches	11	@	15½
Oils, Kerosene	30	@	40
Wines, Old Port	3 50	@	5 00
do Fr. Claret	1 00	@	2 50
do Cal., dz. hot	3 00	@	4 50
Whisky, O.K. gal	3 50	@	5 00
Fr. Brandy	4 00	@	8 00

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., Nov. 8, 1876.

BAGS.

Eng. Stand Wht.	10	@	11
Neville & Co's Hand Sewed	10	@	11
21x36	10½	@	11½
23x40	11	@	12
Machine do 22x36	9½	@	10½
Flonr Sacks ⅛s	9	@	11
" " ¼s	6	@	7
" " ½s	4½	@	5
Hessian 60-in	12	@	13
do 45-in	10	@	—
do 40-in	8½	@	—
Wool Sacks, 3½ lbs	45	@	50
do 4 "	50	@	52½
Stand. Gunnies	11½	@	12
Bean Bags	7	@	8

CANNED GOODS.

Asst'd Pie Fruits in 2½ lb cans	2 75	@	3 00
do Table do	3 75	@	4 25
Jams & Jellies	4 25	@	—
Pickles ½ gl	—	@	3 50
Sardines, qr box	1 65	@	1 90
do hf boxes	3 00	@	—

COAL—Jobbing.

Australian, ₱ ton	8 00	@	8 25
Coos Bay	—	@	9 00
Bellingham Bay	—	@	9 00
Seattle	—	@	9 00
Cumberl'd	—14 00	@	16 00
Mt. Diablo	5 75	@	7 75
Lehigh	—	@	22 00
Liverpool	8 50	@	10 00
West Hartley	—	@	14 00
Scotch	9 00	@	10 00
Scranton	13 00	@	16 00
Vancouver's Isl.	10 50	@	12 00
Charcoal, ₱ sk	75	@	—
Coke, ₱ hbl	—	@	60

COFFEE.

Sandwich Island	—	@	21½
Costa Rica per lb	21½	@	—
Guatemala	20½	@	21
Java	—	@	24
Manilla	—	@	19
Ground in os	25	@	—
Chicory	27	@	—

FISH.

Sm. Dry Cod, new	5½	@	6½
cases	6	@	7½
do honeless	8½	@	10
Eastern Cod	8	@	9½
almon in hhls	6 50	@	7 25
Sdo ½ hbls	3 75	@	4 00
do 2lb cans	2 40	@	—
do 1lb cans	1 40	@	—
do Col. R. ½lb	4 25	@	4 50
Pick. Cod, bbls.	22 00	@	—
do ½ bbls	11 00	@	—
Mack'l, No. 1, ½bls	11 00	@	—
" Extra	—	@	12 00
" in kits	1 90	@	2 25
" Ex mess	3 50	@	4 00
" Ex mess. ½hs	—	@	12 00
Pic'd Herr'g, hx	3 00	@	3 50
Sos. Sm'k'd Her'g	40	@	50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl	2 00	@	2 25
Cement, Rosendale do	2 75	@	3 50
do Portland do	4 75	@	5 50
Plaster, Golden Gate Mills	3 00	@	3 25
Land Plaster, ₱ ton	10 00	@	12 50

MISCELLANEOUS.

Pulu	—	@	7½

NAILS.

Assorted size. keg	3 25	@	4 00

OILS.

Pacific Glue Co Neat F't No. 1	1 00	@	90
Pure	—	@	—
Castor Oil, No. 1	1 05	@	1 10
Baker's A A	—	@	1 10
Olive Plagniol	4 85	@	5 00
do Possel	4 25	@	4 50
Palm lb	9	@	—
Linseed, raw	—	@	65
do boiled	—	@	70
Coccannt	—	@	60
China nut in cs.	65	@	70
Sperm	2 00	@	—
Coast Whales	60	@	65
Polar, refined	—	@	60
Lard	1 15	@	1 17½
Oleophine	—	@	37
Devoe's Bril't	38	@	39
Eureka	32½	@	38
Barrel kerosene	32½	@	—
Downer Kerose'e	45	@	—
Elaine	—	@	42

PAINTS.

Pnre White Lead	9¾	@	10¼
Whiting	—	@	1¾
Putty	4	@	5
Chalk	—	@	1½
Paris White	—	@	2½
Ochre	—	@	3½
Venetian Red	—	@	3½
Averill Chemical Paint, per gal. White & tints	2 00	@	2 40
Green, Blue & Oh Yellow	3 00	@	3 50
Light Red	3 00	@	3 50
Metallic Roof	1 30	@	1 60

RICE.

China No. 1	5¾	@	6⅛
Hawaiian, ₱ lb	7	@	—
Carolina, ₱ lb	10	@	—

SALT.

Cal. Bay, per ton	10 00	@	14 00
do Common	5 00	@	7 00
Carmen Island	12 00	@	15 00
Liverpool fine	13 50	@	16 50

SOAP.

Castile ₱ lb	10	@	10½
Common brands	4½	@	6
Fancy do	7	@	8

CANDLES.

Grant's	16	@	16½
Mitchell's	18	@	20

SPICES.

Cloves ₱ lb	45	@	47½
Cassia	23½	@	26½
Citron	28	@	30
Nntmeg	95	@	97½
Whole Pepper	14½	@	14½
Pimento	16	@	17½
Gr'nd Allsp'ce dz	—	@	1 12
do Cassia do	—	@	1 50
do Cloves do	—	@	1 50
do Mustard do	—	@	1 20
do Ginger do	—	@	1 00
do Pepper do	—	@	1 00
do Mace do	—	@	2 00
Bowen's Pure Ground ₱ lb	—	@	50

SUGAR, ETC.

Cal. Cube per lb	—	@	12¾
Circle A crushed	—	@	12
Powdered	—	@	12½
Fine crushed	—	@	12¾
Granulated	—	@	11¾
Golden C	—	@	10¾
Hawaiian	10	@	11
Cal. Syrupin kgs	—	@	67½
Hawaiian Molasses	25	@	27½

TEA.

Oolong, Canton, lb	19	@	25
do Amoy	28	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	40
do Pingsuey	45	@	80
do Moynne	60	@	1 00
Gunpo'der, Cant.	75	@	1 00
do Pingsney	50	@	90
do Moyune	65	@	1 25
Y'ng Hy., Canton	28	@	40
do Pingsuey	40	@	70
do Moyune	65	@	85
Japan, ½ chests, bulk	30	@	75
Japan, lacquered bxs, 4's and 5 lbs	45	@	67
Japan do, 3 lb bxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ & 1 lb paper	30	@	55

TURPENTINE.

Eastern	50	@	55

LEATHER.

[WHOLESAL

Seedsmen.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWER SEEDS FIELD TREE GARDEN

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

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Crosby's Extra Early, Marblehead Mammoth, Stowell's Evergreen, Mexican Sweet, New — Sweet Corn.

Early Canada, Early Dutton — Yellow Flint Corn.

Long Red Mangel Wurzel, Yellow Globe, White Sugar — Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

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GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, ETC.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, ETC.

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These trees are from five to twelve inches high, transplanted regularly into boxes 30x20 inches square, weighing 150 pounds. 150 or 500 in each box, in splendid condition for transplanting to their permanent location. Price, $6 to $12 per 1,000. Will contract to plant the trees, or furnish superintendence, on low terms. Cash must accompany orders for less than $50, or if greater than that amount, city reference must be given. Address,

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SANTA BARBARA NURSERY,

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Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer.

The GORHAM SEEDER AND CULTIVATOR COMBINED



No Other Machine Presents such an Array of Useful Devices, and, taken together, they Constitute the Gorham Seeder a Machine Distinct and Separate from all others of its Class.

We Ask all Those in Want of a Seeder to Call upon us and Give our Machine a Thorough Examination, or Write Directly to Us.

We can produce single testimonials that would fill this page, claiming for it a repntation as broad as its use is extensive. Among the hundreds who have used them we refer to as many as space will admit, in different parts of the State, who are using from 1 to 16 machines each:

Dr. Glenn, of Jacinto; R. S. Cary, Sacramento; Charley Coyle, Woodland; G. W. Scott, Yolo Co.; Bullard & Co., Chico; John Simpson, Tehama; E. Hunter, Princeton; John Boggs, Colusa; Murdock & Jones, Colusa; Overhiser, of Grangers' Union, Stockton; A. L. Layre, Fresno Co.; I. Friedlander, San Francisco; John Mitchell, Modesto; Grangers' Union, San Jose.

THE SIX-FOOT MACHINE, with two horses, will seed 12 acres per day easily. THE EIGHT-FOOT MACHINE will seed 16 acres per day; THE TEN-FOOT MACHINE, with four horses, will seed twenty-five acres per day; THE TWELVE-FOOT MACHINE will seed 34 acres per day; THE FOURTEEN-FOOT MACHINE, with six horses, will seed 40 acres per day. ☞ Extras of all parts always found with us.

Our Assortment of Harrows is the Most Complete to be found in the State.

Iron Harrows; Hard Wood Harrows, with adjustable hinges; Teeth of the Best Toe-Cork Steel; seven and nine Chisel Tooth Cultivators, with Reversible Teeth.

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The people of the coast need no longer be humbugged by imitation Cast Cast Steel Plows. We will keep the Genuine Collins' Steel Plows, made expressly to suit the wants of this trade; also, a full line of Extras for the above goods, which we guarantee to fit.

Feed Cutters, Wine and Cider Mills, Barbed Wire for Fencing Wagons, Spring Wagons, Halliday Windmills, Etc.

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Mechanics' Mills, Mission Street, Bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of Stair Material furnished to order. Wood and Ivory Turners. Billiard Balls and Ten Pins, Fancy Newels and Balusters.

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CALVERT'S CARBOLIC

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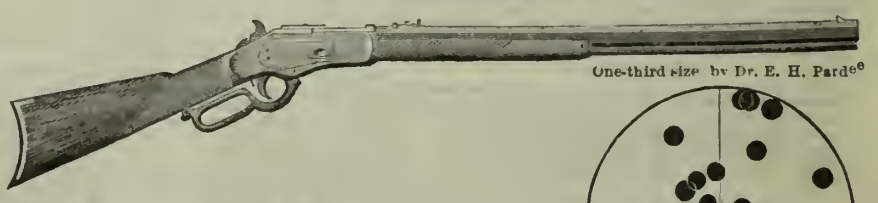
After dipping the Sheep, is useful for Preserving Wet Hides, Destroying the Vine Pest, and for Disinfecting Purposes, Etc.

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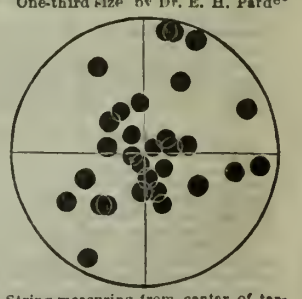
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MODEL 1873.



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String measuring from center of target to center of each shot, 32¾ inches. Average distance of each shot, 1 9-100 inches.

The Strength of all Its Parts,

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Commends it to the attention of all who use a Rifle, either for Hunting, Defense, or Target Shooting.

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Round barrels, plain and set, 24 inch—blued. Octagon barrel, plain, 24 inch—blued. Octagon barrel, set, 24, 26, 28, 30 inch—blued. Octagon barrel, set extra heavy, 24, 26, 28, 30 inch—blued. Octagon barrel, set 24, 26, 28, 30—extra finished case hardened and check stocks. Octagon barrel, set extra heavy, 24, 26, 28, 30 inch—extra finished—C. H. & C. S. Octagon barrel, set, 24, 26, 28, 30 inch. Beautifully finished. C. H. and C. S. Known as "One of One Thousand." Octagon barrel, set, gold, silver and nickel plated and engraved. Carbines blued, also gold, silver and nickel plated. Military rifle muskets, model 1873. Rifles, muskets and carbines, model 1866. Reloading Tools, Primers and Parts of Arms.

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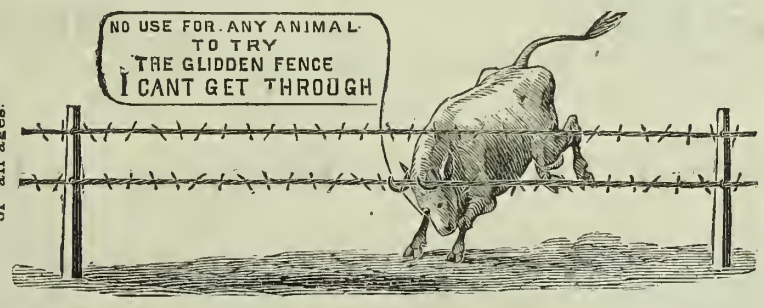
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After Nearly Three Years' Test, the STEEL BARBED FENCE WIRE, Patented by J. F. GLIDDEN, Stands Head and Shoulders Above all Competitors, and is More in Demand than all Other Barb Fences Put Together.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



About one-half the cost of any other good fence, and can be put up for one-quarter the labor.

OVER 900,000 POUNDS SOLD IN CALIFORNIA THE FIRST SEASON OF ITS INTRODUCTION. THE GLIDDEN PATENT BARB WIRE HAS BEEN TESTED BY THOUSANDS OF PRACTICAL FARMERS, WHO UNIVERSALLY RECOMMEND IT, AND IS SUPERIOR TO ALL OTHERS FOR THE FOLLOWING REASONS:

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PURE BLOODS,

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ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco

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$250 A MONTH--Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

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FURS FOR ROBES,

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You are hereby notified, that in putting barbs upon wire, making a barbed wire fence, or in using or dealing in barbs or barbed fence wire, not made under license from us, you are infringing upon our patents, and we shall hold you strictly accountable for damages for all infringements of Letters Patent, Nos. 66,182, 67,117, 74,379, 84,062, 153,965, 157,124, 157,508, 164,181, 173,667; re-issues, Nos. 7,136, 6,976, 6,902, 7,035, 7,036, 6,913, 6,914, and other patents. Copies of our claims can be obtained of our attorneys, Coburn and Thacher, Chicago, Ill.

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IRON BEAM, IRON FRAME, SIMPLE IN OPERATION,

STRONG and DURABLE.



FIRST PREMIUM

Awarded it by the Illinois State Board of Agriculture, over NINE competitors, in a FIELD TRIAL at Peoria, Sept. 8th, 1874.

Cuts 16 inch, with Extra Point, Price, $75.00, or $67.50 Cash.

☞ We offer to the trade a Sulky Plow which we pronounce superior in point of strength, durability, and ease of operation, to any of its competitors. It is locked in the ground by one lever, at various depths from two to nine inches, maintaining a level position at all depths; and is lifted clear of the ground with ease by the same lever. The draft is direct from the end of the beam; and the "land" is ganged by a clevis in the natural way, avoiding the usual side draft. It has no complication of levers or gearing.

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Simple, Strong and Durable — Iron Beams, Iron Frame, Iron Wheels.

Price, 10 & 12-inch Cut $100, or $90 Cash.

☞ As proof of the superiority of the Deere Gang, 2,000 of them have been sold during this, the first year of its introduction, and are operating to the entire satisfaction of every purchaser. In every comparative test it has shown marked advantages over all other gangs. And in the great Illinois and Iowa State trials, 1874-5, it was awarded the FIRST PREMIUMS over all competitors, and pronounced perfect in all respects. The Deere Gang Plow is superior to all others. It was put to the severest tests at the County Fair, San Jose, in competition with the Mlipitas, Santa Clara and Sweepstake Plow Company's Plow, Hill's Eureka Gang Plow and others, and after two days' trial the committee Awarded the Premium to the Deere Moline Gang Plow.

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IN THE

MARKET.

FORCE FEED

Without

CHANGE OF GEARS.



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Stands at the Head of the Seeder Class.

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MATERIAL,

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PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, NOVEMBER 18, 1876. [Number 21.

The Close of the Centennial.

The great exposition is formally closed, although there is yet opportunity for those who desire to behold it in its dissolving grandeur. The exercises at the closing were as marked as those at the beginning, and the affair was well assigned to history. The telegraph brought the following outline of the ceremonies of the closing day, November 10th: Great numbers of people were in attendance at the Centennial grounds, to witness the formal closing of the exposition. Shortly before 2 o'clock President Grant, esoorted by Governor Hawley, ascended to the platform, followed by the Centennial Commissioners, the Board of Finance, Foreign Commissioners and invited guests. After the excitement of the multitude, occasioned by the presence of General Grant, had subsided, the orchestra, under the direction of Theodor Thomas, performed Wagner's Inaugnration March, composed for the opening exercises on the 10th of May last. At its conclusion, Rev. Jos. A. Reiss offered up a prayer. The chorus, accompanied by the orohestra, then sang a choral, entitled, "Fugue," by S. Bach, after which an address was delivered by Hon. D. J. Morrell, United States Centennial Commissioner from Pennsylvania and chairman of the ex-Commission. The orchestra then rendered selections, after which Hon. John Welsh, President of the Centennial Board of Finance, delivered an address. After Beethoven's Fifth Symphony had been rendered, Director - General Goshorn addressed the audience at length. Handel's Hallelujah Chorus was next given by the orchestra and chorns, and Hon. Jos. R. Hawley, President of the United States Centennial Commission, delivered an address reviewing the history of the exposition. The audience joined in singing "America;" after which President Grant declared the international exposition of 1876 closed. The Doxology was sung by the chorus and audience, accompanied by the orchestra, and the formal ceremonies were concluded.

With the close of the Centennial exposition, Fairmount park becomes again the particular pleasure-ground of Philadelphia, enriched by the scenes in which the world took part. Our illnstration on this page reflects this idea and is a fitting scene with which to close our Centennial reports. There have been arrangements made by which the city of Philadelphia will retain some of the exhibition bnildings to grace her pleasure-ground. The main building has been purchased by a stock company, and will be preserved for a permanent exhibition. The Art Gallery was constructed with a view to its remaining, and some other structures will doubtless battle with time until it conquers and removes them.

The exposition has been a success far greater than was anticipated. The total number of visitors was more than eight millions and the money receipts will exceed the expenditures by ne and a half million dollars, it is estimated. Ohis money will either go to recompense the government for its endowment, as there is a clause in the appropriation bill to this effect, or will be divided among the holders of Centennial stock.

Now that the great event is over, it is fitting to dismiss it with a few notes of the good it has accomplished. Every one who has visited the Centennial, says the *Iron Age*, has gone away with larger and more liberal ideas, and a knowledge which will bear fruit for years to come. Vast multitudes whose lives were bounded by narrow limits, and who knew and thought of little beyond the commonplace happenings of their daily experience, have been drawn from home and brought into contact with the activities of a world of which they had but vague ideas at most. Without fully realizing it, they have imbibed a vast amonnt of useful knowledge which will not be forgotten. However general may have been their survey of the exhibition, they have learned something which can be applied at once in their daily occupations. Beside this, they have had stimulated that pride of American citizenship and love of country which will inspire them to a more hearty loyalty and a more active desire to promote to the fullest extent the welfare of our common country.

As an educator for the producing classes of the country, the Centennial has been of incalculable benefit. The millions of farmers, manufacturers and mechanics who have wandered through the aisles of the various buildings, picking up ideas and examining the products of other nations and other sections of the country, have not gone away empty handed. What they have learned will appear in ways perhaps, never to be directly traced to the education they have gained at the Centennial, but whioh must be placed in the scale as a fair offset to the expended millions.

In the extension and development of our export trade, we shall probably feel the benefits of the Centennial to an extent not now appreciated. The testimony which foreign visitors have borne to the variety and excellence of our machinery, our manufactures and our resources, will attract general attention to us and make the extension of our export trade an easy matter. We do not know how great the attendance from abroad has been, but it has been largely composed of representative men who have access to the public ear at all times. With but few and unimportant exceptions, they have borne generous testimony to the excellence of American productions, and the correspondents of foreign journals have, almost without exception, done us full and impartial justice. The fact that we are entitled to recognition as occupying a front rank among producing nations has been forced upon the attention of all the civilized nations of the globe, and nothing more is needed to prepare the way for such an extension of our export trade in manufactures as we may find safe and profitable.

However considered, the Centennial will result in benefits so great, so far reaching and so permanent, that the few millions which it has cost cannot be considered as of any importance in comparison with it. As an exhibition, it has fairly exceeded the largest promises of its projectors. It is something which, as a nation, we have a right to be proud of; sometbing which we can remember with satisfaction, and of which the next generation will cherish mementoes. It is too near to be seen to advantage, or fully appreciated. A year or two hence we will understand it better, and probably have better reasons than now appears to feel satisfied with the results of our Centennial.



VIEW FROM BELMONT MANSION, FAIRMOUNT PARK.

Wool Growing in the Sandwich Islands. We learn from the *Hawaiian Gazette*, that Mr. W. M. Gibson and Dr. G. Trousseau, both large wool growers, have addressed a circular to all parties interested in that industry on this group, proposing the organization of a "wool growers' association," whose objects shall be: 1st, the importation of choice stock; 2d, to secure good shearers at a uniform price; 3d, to prompt legislation for the destruction of injurious dogs; 4th, to promote the improvement of pastnre, etc.; 5th, to secure a uniformity in shape, weight, and nature of wool packages, besides other matters of mutual help and benefit, which would naturally grow out of such an organization. The circular estimates that the sheep pastures of superior quality in this kingdom comprise about one-third of the whole area, 1,500,000 acres, and prophesies that our wool stock will shortly increase to 1,000,000 head of first-class sheep.

An Ear Insect in Horses.

The discovery is announced from Tulare connty of an insect which, taking possession of the ears of a horse, canses him to exhibit symptoms like those produced by "loco poisons." The following extract from the Visalia *Delta* seems to indicate a belief that this insect is to be regarded as the cause of all indications which are comprised in the term "locoed." While we refrain from that conclusion at present, we regard the subject of great importance and worthy of a fuller examination. The *Delta* says:

"It has been almost nniversally believed that this so-called 'loco' disease in horses was induced by the eating of a weed, which is fonnd in some places in this county, but much more plentiful on Kern island, and known by the Spanish name of 'loco weed.' The disease causes the animal to seemingly lose his intelligence, his appetite and ordinary instinots, grows poor and spiritless, wandering aimlessly about, if permitted to do so. A few weeks since Mr. Ashton, of Tule river, had a couple of horses 'locoed.' They had not been out of his pastnre and no 'loco weed' was to be found growing there. Another canse was sought for and found, and it is believed the discovery is of great importance, as it is destined to save thousands of dollars' worth of stock annnally in this connty alone, and many thousands more to stock owners throughout the State. The seat of the disease has been considered to be in the head or brain, and here Mr. Ashton commenced his investigations. The horse would hardly permit his head to be touched, but when it came to feeling into his ear, with good horse sense he showed his master that he was on the right track, by holding still. Here was the secret. One after another Mr. Ashton bronght out a sort of bug or ear-tick, with about half a dozen legs. A large number were found in the ears of his horses, which speedily recovered their wonted spirit when relieved of these pests. Several tests made at Merrill's drug store, for an ointment to destroy the vermin, resulted in finding that a mixture of one drop of carbolic acid to 30 of sweet oil, mixed and placed in the ear, would immediately kill the tioks without doing injury to the horse."

We would be pleased to receive a specimen of the insect which Mr. Ashton found in his horse's ear, in order that we may determine its character and name. The matter is of both scientific and practical interest, if observations have been accnrately made upon its work. So far as we know, the subject is new, and notwithstanding the popular delusion known as the "ear-wig" in human kind, this insect should receive respectful attention and its quality be made generally known. Will some one oblige us with specimens?

The superintendent of the indnstrial school reports 133 boys and 199 girls in the institution.

CORRESPONDENCE.

Cucamongo.

EDITORS PRESS:—Cucamongo is 41 miles from Los Angeles city, on the line of the Southern Pacific railroad. Obtaining a conveyance, after a further ride of four miles I arrived at the future great city of Cucamongo. I say "future great city of Cucamongo" advisedly, for if one of the finest spots in the world entitles a place to be a large city, this is it. True, there are not now a dozen houses in the place, nor 50 men, and only one white woman; still it is full of attractiveness. Its climate is exhilarating and bracing, being some 1,500 feet above the level of the sea. Its soil is one of surpassing richness, provided it is irrigated. The locality abounds with game of all kinds, especially quail. I never saw hawks so numerous or so bold.

The Cucamongo Vineyard Company

Have at a vast expense built a flume on the hills, and have thereby brought a large volume of the purest water to their vineyard. They have 160 acres of grapevines of about 20 years old, and some 40 more of young vines, from which they manufacture over 100,000 gallons of wine a year, of a quality equal if not superior in some respects to any in the world. It is a test of merit that it is appreciated at its own doors in Los Angeles and in San Francisco, and wherever good wine is valued and appreciated. There are four principal varieties of wine made here, all excellent: White, Port, Angelica and Claret wines. No trouble is spared in every branch to make a first-class wine. They make about 10,000 gallons of excellent brandy. The employees are men of great experience in the best Vineyards of Europe, while the most scrupulous cleanliness is observed everywhere. A great deal of manual labor is saved by the water which is here so abundant. Crushing and pumping, that in other places are performed by human muscle, is here done by water.

Results of Irrigation.

After rendering such service the water is allowed to flow in various directions. During the summer season it is allowed to run down each avenue prepared for it by a plow, in small quantities, dissolving the alkali dust and feeding the vines, which grow vigorously, all of them being over four feet in hight, while a large majority of them are over five feet high, notwithstanding they are kept cut back to the old wood every year, and this practice has been going on here for over 20 years.

All kinds of fruits and plants grow here equally well. Apples, pears, peaches, plums, apricots, oranges, lemons, walnuts, etc. The employees are of German birth, while during the wine season a large number of aborigines are employed and a few Chinese.

Chinese and Indians.

I never saw Chinamen who seemed so conscious of their importance as those here. This is an isolated case, however; elsewhere they are the very emblem of meekness and humility, but John Chinaman feels his superiority in the presence of the improvident Indian. These Indians are paid a dollar a day and their food. As soon as Saturday noon comes and they are paid, away they go to get whisky, and never think of working again while the money or whisky lasts. I was shown one boy who was shoeless, shirtless and hatless, yet the moment he got his wages he went to the store and purchased an old German accordeon, shockingly out of repair, and all day Sunday he was attempting to grind out doleful discord to the edification (?) of the other members of his tribe. Truly, "music hath charms to soothe the savage breast."

Women Needed.

The German employees were a happy and hard-working set of fellows; they admitted that they had all they could wish for except one thing: female society. If a half dozen good German girls could be induced to go there they would, I am sure, speedily find good husbands, and be as happy as mortals can be on this mundane sphere.

Adjoining the Cucamongo wine company's ranch on the south is the ranch of

Messrs. Turner & Runkle.

The estate is under the superintendence of Mr. E. P. Norwood, an enthusiast in arboriculture, horticulture, etc. He acknowledged with great frankness having gained much valuable information from the columns of the RURAL PRESS. Being supplied with an abundance of water, the progress he has made in the past two or three years is perfectly wonderful, some slips of eucalyptus or gum tree having in that short space of time obtained a growth of from 20 to 25 feet. I never saw such healthy looking trees. Mr. Norwood has a nursery of 80 acres, in which he has a forest of locust, orange, lemon, walnut and other trees. These in due course will be transplanted over the balance of the ranch of 11,000 acres, which is now owned by a small number of gentlemen in San Francisco, who contemplate having beautiful homes prepared for them in this delightful spot, when they become weary of the turmoil and strife of city life. "A consummation devoutly to be wished," surely.

Mr. Norwood showed me some fine specimens of cotton and tobacco he had raised, and he also has some very thrifty "Tahiti thorns" planted between his eucalyptus trees surrounding his orchard. Probably you know all about them, but I never before saw them. Besides the formidable thorns which stud the principal branches, "like quills upon the fretful porcupine," there are three perfect hooks jutting out in different directions, and the unhappy creature who gets enthralled in its marvelous toils will indeed be to be pitied. There will be little flesh and less clothing left on the back of a man who should attempt to intrude into its domain. Mr. Norwood is like every other man here, with one exception, a bachelor, with a physical development of a stalwart man and the sympathetic nature of a delicate woman. His dog and his cats and kittens partially fill the "aching void" in his heart that should be filled by a wife and children.

"Full many a gem of purest ray serene
The dark unfathomed caves of ocean bear;
Full many a rose is born to blush unseen,
And waste its sweetness on the desert air."

G. W. G. MORGAN.

Los Angeles, October, 1876.

East and West—No. 6.

(Written for the RURAL PRESS by PHILMORE.)

Many years ago the writer saw in a farmer's window some "love apples." They were very beautiful and created a great deal of curiosity. But it was really too bad they were poisonous; so the old folks told us, and, of course, they ought to know. Some time after we found some of the beautiful red apples in our garden, growing upon vines very like potato vines in looks, but phew, what a smell! We imagined all poisonous things smelled badly, but these being very poisonous, of course were fearful to the olfactories. So we let them severely alone and gave them a wide berth. Years after we became acquainted with people that were foolish enough to cultivate them, and what was more startling still, they actually ate them. Now, we knew the lobelia, that grew in the fields, was often taken for emetics. We knew or, at least, we had heard, that it was poisonous and that it was only used in case of sickness, and then always with caution. So with wild indigo and some other poisonous and dangerous herbs, all of which had a peculiarly sickening odor when crushed. And so with the vines of the "love apples," only it was much stronger and more disagreeable, and yet some foolish people actually ate them, and even pretended to like them. We did not wish to be outdone, so we tried one, and after gagging and retching we managed to swallow a portion of it, which went to show how brave we were, but it to us was proof positive that they were unfit to eat, even if they were not really poisonous. But the "love apples" grew and multiplied, until we saw them in a great many gardens and even in the fields with potatoes and corn. Gradually we got used to the smell and, finally, to the taste. At first a little salt and vinegar would make them go down, and then a little pepper, and finally a little sugar could be tolerated, and then we could manage to worry them down baked or stewed or, in fact, cooked in almost any manner. And we are so far gone now that we are not ashamed to say we like them, and if they continue to grow in favor in the future as in the past, they may prove in the end to be what we first heard them called, "love apples," though they are now called tomatoes.

Now about tomatoes; who does not eat tomatoes? But how few there are that realize how short a time it is since they have been brought into every-day use. And in this country they seem to thrive best and grow to the greatest perfection. Not alone in size and beauty, but in flavor also. The very strong taste and smell of those we remember as "love apples" seem to have been lost, so that to us they have not a disagreeable odor. Their season is much longer in California than in the Eastern States, and immense quantities are used for the table, and many tons are put up in tin cans annually for winter and for other markets. Large quantities are put up in the East also. So that the always much admired but long considered dangerous love apple has become an article of commerce.

There was a man that owned a small swamp hole near his house, in one of the Eastern States, that was unsightly, and, as he imagined, unhealthy, though farmers do not often stop to think much about such a thing as malaria unless it prevents their crops growing. Well, the unsightly swamp was cleared of bushes and ditched around, and finally grubbed over, and planted at first with potatoes, and, strange to say, tomatoes came up with them in large quantities and they were allowed to grow. A large yield of potatoes repaid the farmer; a number of bushels of tomatoes were also harvested. The second year he tried corn on a portion and potatoes on the remainder, and in due time the tomatoes made their appearance again with both, and, wonderful to be told, proved to be a more profitable crop than either the corn or the potatoes, netting nearly as much as both together; for years after tomatoes was the crop raised upon that particular spot, and it was by far the most profitable acre upon the farm. It was supposed that the first seed was in some manure that was spread upon the top of the ground, but it proved a small bonanza to the lucky owner of the once unsightly hog. And there are many just such little swamp holes that, if they were redeemed, would be worth all the rest of the farm. We could name another instance of the same kind, but tomatoes were not the crop and we desist. We believe there cannot be a more favorable soil or climate than California for this really valuable and healthy vegetable. Our long season without rain prevents the vines from rotting as they do in the East where the growth is rank and the vines become lodged. Besides, our peculiar climate ripens them much more evenly than they can possibly be ripened in the East, and it appears to us that we ought almost to supply the world, provided we could manage to get them to market cheaply so that they could be enjoyed by the million. But expensive canning and high rates of transportation preclude the possibility of our doing much more than provide for home consumption.

Watsonville Items.

EDITORS PRESS:—I send with this a chestnut burr with fruit taken from the orchard of Mr. N. B. Allison, who lives on the Monterey side of the Pajaro, about one mile from Watsonville. It is of the Italian variety and I send it merely as a proof that chestnuts can be raised in this valley. Mr. Allison has been experimenting for several years in this direction and has never before succeeded. The trees have grown well, but the fruit has never before matured. Having a large lot of trees he has offered to give them to the surrounding farmers if they would carry them away; but so little confidence in their value was implied in the offer that it was never accepted by them, and now, such is his success that he will utilize all his resources in this direction. He has no confidence in the success of the States chestnut.

Mr. Allison has been an experimenter in other fruits; especially have his efforts been directed to obtain a peach which would not be affected by "curled leaf"—the great difficulty here to be overcome. He has succeeded in obtaining three or four varieties which are free from curl leaf, and of finer quality than any grown here before, and so good were they that they received commendation at the Mechanics' fair in your city, not being sent there as an exhibit, but to a daughter who lives in San Francisco and who put them on exhibition for the reason she saw none there she thought excelled them. His method has been to plant the pits of selected fruit, and from a great number of the bearing seedlings to select those which embodied the excellencies he sought. He has likewise obtained apples and other superior fruits by the same methods. He showed me, growing among his beautiful shrubs and trees, an evergreen of the cypress kind, which he obtained at an elevation of 3,000 feet, 40 miles south and east of San Diego, on the Cuyamaca mountain. He found there a small grove of them and has never found or seen any others in the State. He presented one of these trees to Mr. Atherton, of the firm of Spring & Atherton, San Francisco, where you can probably see the shrub. Mr. Allison is an enthusiastic orchardist and success attends his labors.

Potatoes

Are quite as good as heretofore represented. In some fields I am told they will yield up to 150 sacks per acre and of good quality. Large quantities are shipped to San Francisco daily

One of the local papers here presented as its own the entire S. C. R. R. bridge item—word for word, with only the addition of the number of men and cost of work—published in the RURAL PRESS October 21st, without crediting it to the PRESS. If it was worth the publishing it was worth the credit. If the article had been incorrect in any respect your correspondent and the PRESS would have received credit with a vengeance. It is a poor rule that won't work both ways. I should not have seen the article had it not been pointed out to me by a reader of the local alluded to and of the RURAL PRESS. C. N. W.

Watsonville, Nov. 7th.

The chestnut burr received contained two fine nuts and we think Mr. Allison will find it profitable to grow them for the market. We are glad to hear of his enterprise with regard to other fruits. Such efforts are worthy of general appreciation and commendation.

The RURAL PRESS is very careful to acknowledge its indebtedness to exchanges for valuable information and deserves reciprocal regard.—EDS. PRESS.

TARNISH ON ELECTRO-PLATE GOODS may be removed by immersing the article from one to fifteen minutes, or until the tarnish is removed, but no longer, in the following solution: Rain water two gallons, cyanuret potash half pound; dissolve and put into a stone jug or jar, and closely cork. After immersing, the article must be taken out and thoroughly rinsed in two or three waters; then dried with a soft linen cloth, or, if frosted or chased work, with fine clean sawdust. Tarnished jewelry may be speedily restored by this process; but make sure work of removing the alkali, otherwise it will corrode the goods.

FLORICULTURE.

Eastern Notes on California Flowers.

We find in the *Gardener's Monthly* some interesting notes on two California flowers. The first is written by William Webster, landscape gardener, who passed last winter in this State and whose name was several times brought to the notice of the RURAL PRESS. He writes concerning the

Triteleia Laxa or Seubertia Laxa.

And desires to know the true name, as follows:

"The communication by W. C. L. Drew, in the September number of the *Monthly*, is not only timely, but an exceedingly interesting one to me. The flower which he introduces to your readers by the name of *Triteleia laxa* is a very familiar one to me. The plant, but not the name. And it recalls to my mind very vividly the great delight I experienced on first discovering it growing in all its perfection of bloom on the hillsides in California.

"Some time during the month of May last, while in company with a friend, we determined on taking a ramble among the hills which so nearly environ the beautiful town of San Rafael, of which place the gentleman was a resident; and while ascending one of them our eyes were greeted with a fine display of this, the finest of California's floral gems. In ascending to the summit of one of the highest hills the flowers became more profuse and beautiful, and I cannot refer to any previous botanical excursion that ever gave me such genuine delight as I experienced on this occasion.

"That it improves by cultivation was very apparent, for near to where it was growing in great profusion a piece of ground had been enclosed for the purpose of growing the eucalyptus. The ground on which the trees were planted had been pretty thoroughly broken up a year or two previous, and the bulbs which had remained in the ground at the time of the breaking up of the soil, had thrown up flower stems over two feet high, with umbels as large as *Agapanthus umbellata*, and of dark blue or violet, very striking indeed. The plants on the inside of the enclosure being twice as large as those on the outside, where the ground had not been broken up.

"A short time subsequent to making this discovery I met Prof. Bolander, of San Francisco, and to whom I introduced the subject, at the same time asking him to favor me with the correct name, which he did in writing, and the name as he gave it is now before me—*Seubertia laxa*—and that there may be no mistake of identity, I enclose you a small bulb which I dug from one of the hills in the vicinity of San Rafael. Please give us the true name."

[The name *Seubertia*, which Kunth gave to this, is more properly appropriated by a genus of composites nearly allied to the well-known *Bellis*, or English daisy; hence Hooker's name of *Triteleia* prevails.—*Ed. G. M.*]

Brodiaea Coccinea.

W. C. L. Drew writes as follows: Among the many wonderful plants found in the vegetable world of our State, California, there are few, if any, that are more curious and interesting than the various *Brodiaeas*, foremost among which is the *B. coccinea*.

B. coccinea was first discovered by Gray, a few years ago; it belongs to the natural order *Liliaceæ*; in its native home it is not so well known under its botanical name, as given above, as by its common and popular name, vegetable fire-cracker, which name is far more appropriate than that borne by many flowers.

The flowers are borne in immense clusters, or umbels, each cluster having from 20 to 50, and often more, blossoms in it; and are often found from six to eight inches across the cluster.

The single blossoms are about the size of a Chinese fire-cracker, which every one has seen on the Fourth of July; in shape they are also similar; in color they are of a very bright scarlet and very brilliant, and produce a dazzling appearance when seen swaying to and fro in the sun like; it is to this resemblance to the fire-cracker it owes its name "vegetable fire-cracker," and at a distance its resemblance to a pendant bunch of fire-crackers is very remarkable. The flowers remain fresh for a very long time, often three or four months, which point will make the plant valuable. The stem grows two feet high, is straight and slender, but very strong; the leaves are from two to four in number and are of a drooping nature; they envelope the part of the stem under ground, but above ground they are almost always found lying flat on the surface.

The root is a bulb of small size, found very deep in the ground, never less than five inches. It abounds in a mucilagenous or starchy substance, and is relished by the Indians, who seek it and consider it a dainty.

It is found in gravelly and rocky soils, on mountain tops and along the northern part of California, and always in partial shade, being under oaks and conifers or in half open woods. These points will give persons cultivating it a hint as to treatment.

TO REMOVE ink marks from paper without affecting the smoothness and gloss of the surface, it will be found sufficient in most cases to moisten the inked surface first with a solution of cyanide of potassium and then of oxalic acid. A camel's hair brush may be used to apply the two liquids, being dipped alternately in each until the marks have disappeared.

The Dairy.

The Dairymen's Association—No. 6.

Butter Making—Continued.

The subject of butter making was further presented to the meeting of the California State dairymen's association, in an essay embodying the experience of H. Claussen, of Point Reyes, in making butter by the deep setting process. Mr. Claussen read as follows:

First, we endeavor to secure for the cows an abundance of good food—in pasture, during the growing season, for grass, and then by furnishing succulent food, such as roots, green corn and hay.

We consider that the best time for cows to come in, with us, is about November 1st, and so on, up to the last of January following. This, we think, affords an opportunity to sell the previously packed butter at a good price, supplies fresh butter when it is most in demand, and we find the cows do better, milk longer, if so treated, than if they calve later in the season—those calving late going dry full as early as those calving early; and as the cows ought to be fed during the winter months we can feed and milk as well as feed without milking. Besides, the grasses are beginning to grow soon after the first rains.

In common with all good dairymen, we believe it imperatively necessary that the cows be driven slowly and carefully from their feeding grounds to the corral or barn. We are not so fortunate as to be furnished barns for stock by our landlord, but we hope he will soon see the great need and so be induced to supply us with them.

All handling of the stock should be kindly, thus insuring a greater, freer flow of milk, free from fever, which will help it to keep better and part with its cream more readily.

Next, and quite as important a matter, is that of

Cleanliness.

Every surrounding of the cow should be cleanly; the handling of the milk from the drawing from the udder until placed in the receptacles should be scrupulously clean, and, by all means, the house, cans, water, and, in fact, everything in, around and about the dairy should be kept religiously clean, for this insures a good flavored article of butter, and, as we shall further show, adds to the flavor of the cheese made from the milk by deep setting process.

We believe in a milkroom

Thoroughly Ventilated,

Always avoiding a draft upon the milk, whether by deep or shallow setting, and we also would keep the room as cool as possible by using blinds at the windows, also keeping out flies much better by darkening the room. Wind and sun are prejudicial to successful raising of cream, besides causing the butter to be of a tallowy appearance, much like "oleomargarine."

Setting the Milk.

Our vats are about three feet deep, and their tops on a level with the floor of the room. A steady stream of water flows into them, and, of course, runs out by an escape pipe. The water is as cool as we can possibly have it without the aid of ice; the cooler the better at any season of the year.

We use cylindrical cans, 22 inches deep and 20 inches diameter, with handles. These we fill within five inches of the top, and place in the vats, the cans resting on cleats in bottom of vats. These cans are left uncovered until the milk has parted with its animal heat and the peculiar animal aroma, when they are covered with a ventilated tin cover.

The milk is allowed to set from 24 to 36 hours, when it is skimmed and then used to make cheese.

Making the Butter.

After taking the cream from the milk it is put into barrels and allowed to stand about 24 hours, and until it is sour; it being meanwhile kept well stirred so that all the mass is soured alike. It is then churned in the usual revolving box churn; the cream being put into the churn at a temperature of 61 to 64 degrees Fah. The manipulation of the butter varies but little from that of other dairymen in this county. Besides, this has been quite fully explained in an article from me in RURAL PRESS.

Skimmed Cheese.

At the last meeting of the California dairymen's association, a few private remarks that skimmed cheese was a fraud upon new milk cheese, and the same question having been openly discussed in the Eastern associations and the same opinions expressed, we humbly ask to have our say and then leave it to the public to decide—they have already decided by paying more for skimmed cheese from Point Reyes than for new milk cheese from several places we know of. It is true that for a few months past cheese of all descriptions has ruled very low, ruinously so to the producer, but these are the facts that pertain to skimmed and new cheese ordinarily. Europeans among us want cheap cheese and buy it as skimmed cheese.

The Advantages of Deep Setting

Over shallow setting are, a more uniform quality of butter and a percentage gained by making and selling cheese made from skimmed milk instead of feeding and fattening hogs with it. If the cheese prove unsaleable or too low in price to be profitable, then the deep set milk can be fed to hogs with as much profit as the shallow set milk.

One comment I would like to make on California dairying, and that is that it is not enough to know a good deal about dairying and talk about it; there must be practice as well as preaching.

In conclusion we would refer any inquirer after knowledge respecting deep setting of milk to X. A. Willard's "Practical Butter Book." To any one desirous of investigating the making of butter by the deep setting process we are ever willing to show them our dairy and explain, as far as able, all the details thereof and, so extend a cordial invitation to all earnest seekers after knowledge in that direction, knowing full well we should be the recipient of much good from any one who will accept the invitation.

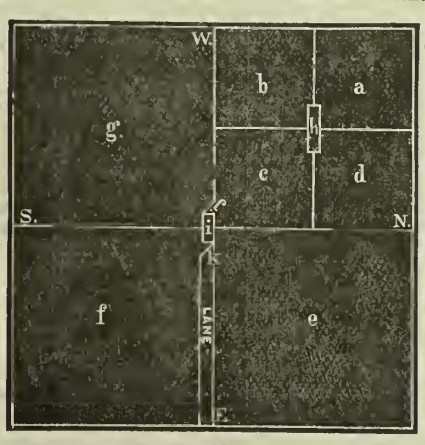
NOTES ON JERSEYS.—The *Turf, Field and Farm* makes the following valuable notes on the Jerseys as butter cows: Mr. C. S. Sargent, living in Brookline, Mass., markets his butter made from Jersey cows in Boston, and obtains for it $1.25 per pound throughout the entire year. Mr. Barnett, living near Boston, gets the same price for his Jersey butter. Col. George E. Waring, of Newport, Rhode Island, secretary of the American Jersey cattle club, realizes $1 per pound for his Jersey butter all the year round. He is in hopes to equal his neighbors in quality and price at no distant day. Mr. T B. Wheeler, of Waterford, Vt., exhibited a Jersey cow at the Caledonia county fair from which 21 pounds of butter in one week was made. Eighty pounds of milk was obtained from her in one day.

The Swine Yard.

Laying out the Yard.

There is considerable difference of opinion in regard to the way fields should be laid off for swine and what constitutes convenience. We give a diagram of the way proposed by the *Western Stock Journal*, which may be suggestive if nothing more. The piece represented in the diagram contains 40 acres. Of course these limits can be extended according to the number of hogs to be accommodated, and these breeding lots can be supplemented by any amount of outside pasture.

Forty acres are divided into four lots of ten acres each, one of which is again subdivided into four lots of two and one-half acres each.



Plan of 40-Acre Yard.

The breeding pen, *h*, is located as near the center of the subdivided ten acres as practicable and is equally accessible to lots *a*, *b*, *c* and *d*. It has all the necessary arrangements and conveniences for the breeding, feeding and care of 20 sows at once—five breeding sows having access to each of the lots *a*, *b*, *c* and *d*. The pen, *i*, is arranged for feeding hogs pasturing in lots *e*, *f* and *g*. It is designed to accommodate at one time as many as will occupy one lot, about 60. When they are fed turn them out and admit from another lot, using the adjustable gates *j* and *k* till all are fed. The lane, *L*, two rods wide, is to separate the large pasture, *e*, designed for young males, from the pasture, *f*, and is a road by which fattening swine, grazing upon land east of this 40 acres, can have access to the feeding pen, *i*, thus using more acres without additional fixtures.

Sixty sows with litters can be handled with ease during the season upon this farm. In the pen, *h*, place 20 sows for early farrowing, assorted for size, time of farrowing and disposition. Allow five to have the range of each of the lots *a*, *b*, *c* and *d*, but shut each sow in her special pen at night. After farrowing give the sows the range of the pasture days and continue to shut in at night. When the pigs are three weeks old teach them to follow the sow by letting out one litter at a time. In two or three days all the sows can run out and in the pens at pleasure.

When the pigs are a month or so old remove the 20 sows with their litters from pen *h* to lots *g* and *f* and feed in pen *i*. Place as before 20 sows for farrowing in pen *h*, and repeat the process. As soon as pigs are weaned remove the sows to the pasture outside the diagram and feed in pen *i* by means of the lane. If it is desired to use more land, a lane similar to the one running east from pen *i* can be made south and north. The great advantage of this arrangement is the employment of a central pen for feeding the swine in different pastures and feeding those in each lot at different hours, so that the pen need be only of size sufficient to feed one lot at once. A convenient grain and feeding barn is expensive and when constructed should be utilized to the utmost.

The feeding pen, *i*, should be constructed in the form of a parallelogram, 17 feet wide and as long as desired. The width of floor is obtained by cutting boards 16 feet long in the center and separating the center ends one foot for drainage.

The floor falls towards the center, one and one-half inches in eight feet so as to drain at the center and the trough, which is constructed in a form to feed upon each side, and runs the entire length of the building, is placed in the center and is raised above the floor one inch to allow the water to pass under it. The importance of having a floor always fall towards the trough will be readily understood by a practical farmer.

The hight of the building will be determined by the question of storage above. Four feet at the eaves will do unless a chamber is desired for grain or straw.

The Vineyard.

Raisin Curing and Packing.

We give this week extracts from the concluding article in the *Call* on the subject of raisin making. These articles have been written by Mr G. P. Rixford, and we have urged upon him the advisability of writing a book on the subject. We think such a book would find a wide sale, and Mr. Rixford has collected information which should be put in permanent form. We hope we shall have the book.

Raisins in the Coast Counties.

The necessity of an even and very warm climate for the cultivation and drying of Muscatel grapes restricts the production by sun heat of this variety of raisins to the warmer valleys of the State; but for the production of Zante currants and Sultana raisins, all such valleys as Santa Clara, Sonoma and Napa, it is thought, possess advantages equal, if not superior, to the hot interior. Both the Sultana and Corinth grapes ripen early and dry quickly, and the latter succeeds admirably in Santa Clara valley. The climate of the island of Zante bears a closer resemblance to that of our coast counties than to the interior of the State. The range of the thermometer in that island in summer is from 60 to 90 deg., and the heat never attains that fierceness characteristic of some parts of this State, while the winters are wet and variable, with occasional frosts. The vines in the Ionian islands are planted four feet apart each way, and are thoroughly irrigated during the winter, the water sometimes being allowed to remain upon the vines for two months. The soil of Zante is a rich alluvial, inclining to clay, and from three to ten feet deep. The crop ripens about the middle of August, and is gathered between that date and the 1st of September. The grapes are spread upon drying floors, formed simply by smoothing off the surface of the ground. With a temperature of 65 to 70 deg., they dry in from 10 to 14 days.

Gathering the Crop.

In treating of the Muscatel grapes at Malaga, Busby says: "They usually commence gathering the crop about the middle of August, choosing only such bunches as are ripe. They return after a week or two to make another selection, and so on for a third or fourth time." At Woodland the Muscatel produces two distinct crops. The first is borne upon the main shoots and ripens from the 1st to the 10th of September; the second upon the laterals, and ripens three weeks later. The second crop is frequently heavier and the fruit larger than that of the first, which is doubtless due to the warmer weather at the time of blossoming This season the crop is about a week later than usual, and picking did not commence until the 10th of September. The grapes are taken from the vines and laid directly upon the drying platform, being handled as much as possible by the stems, in order to preserve the bloom of the fruit.

Curing the Grapes.

Mr. G. G. Briggs, the largest producer of raisins in the State, and who has extensive vineyards in both Solano and Yolo counties, has abandoned drying grounds for two reasons. First, on account of the large space required for the purpose, and secondly the expense of turning over the fruit during the process of curing. He has devised a substitute that seems to answer the purpose perfectly. It consists of a large number of wooden platforms, two by three feet in size, made of thin pieces of sugar pine, and held together by two slats nailed across the back. Mr. Blowers afterward adopted the plan, and now all the raisins made by these two producers are dried upon these platforms. They are light, weighing but five pounds each; cheap, but ten cents apiece; convenient to handle, and will last for years. Mr. Briggs, we are informed, uses 30,000 of them, and Mr. Blowers 7,000, equal to a drying surface in the first instance of a little over four acres, and in the second of a little less than one acre. Each platform holds about twenty pounds of grapes, from which it is evident that 100, containing 600 square feet, are required to hold a ton.

The grapes are taken from the vines and placed directly upon the drying boards or platforms, all imperfect berries being thrown out, and the bunches arranged close together. The platforms are left between the rows of vines during the process of curing, one end being raised upon a lump of earth in order to give an inclination towards the south, the better to receive the full effect of the sun's heat. The grapes are turned once while curing, and this takes place ten or twelve days after the commencement. In this operation lies one of the chief advantages of the boards over the drying ground. Two men take an empty platform and place it over one covered with grapes; the whole is then lifted, a man taking each end, and quickly turned bottom up. The platform now uppermost, which was at the bottom before, is removed and serves for turning the next one. In this way the grapes are all quickly turned over, skillful workmen very seldom dropping a bunch. When the curing is done upon drying-grounds the grapes can be turned only by taking up each bunch separately, with a waste of time as compared to the other plan of twenty to one. The use of platforms obviates the necessity of touching the bunches at all, from the time the grapes are taken from the vines until the raisins reach the hands of the packers, thus preserving the bloom of the fruit and greatly improving its appearance.

In case of rain, which rarely occurs during the curing of the first crop, three or four platforms are quickly piled up, one above the other, with an empty one over all. And this can be done so rapidly that the ordinary force of the vineyard is able to cover the whole crop in a very short time. If the grapes have not been upon the drying platforms more than a week, two hour's rain will not injure them, but after they are half cured they absorb the moisture, and if not quickly dried off by a strong heat, mildew commences in the stems and the whole is soon spoiled.

Time Required for Curing.

The first crop is usually cured in three weeks, but much depends upon the weather. Mr. Blowers has, in very favorable weather, had a crop cure in 15 days, while this season required nearly 30 days to complete the operation. The second crop, which is not ready for gathering until three weeks later, is often caught in the first rains, and unless some provision is made to finish the operation by artificial heat, is apt to spoil. Thudichum and Dupre say that for this reason the first crop only is used for raisins at Malaga. In very favorable seasons, Mr. Blowers has had no difficulty in curing the second crop, and as it is frequently larger and of finer quality than the first, he has erected a drying house, in order to be prepared for emergencies. Busby writes, in regard to curing at Malaga, as follows: "The bunches are spread out separately on the ground, and are never allowed to press upon each other—according to Don Salvador, they are only once turned over. At the end of 15 days they are, in general, sufficiently dry." California producers have not generally succeeded in curing a crop in so short a time as this. The reason may be that the drying grounds have not been properly constructed.

Curing by Artificial Heat.

Some very good raisins have been made by means of the different fruit-drying machines, but the proprietors generally acknowledge that they cannot preserve the bloom of the fruit and make it so attractive in appearance as that cured in the sun. The machines require careful management, and must be operated at a low degree of heat in order to prevent giving the product a cooked taste. However, these machines will be useful adjuncts to the industry in the warmer districts, and may prove to be indispensable in the coast counties. Mr. Blowers has constructed a drying-house on a plan of his own invention, and at a moderate cost, that has a capacity for curing 3,000 twenty-pound boxes, or 90 tons of grapes at once. His experiments have demonstrated that when the grapes are first put into the drying-rooms they cannot be subjected to a greater heat than 140 degrees without giving them a cooked taste, and it is his design to keep the temperature at 110 degrees, that being about the average sun-heat on the drying platforms. When half cured in the sun, he can finish them in the drying rooms in six or seven days with this degree of heat, and still preserve the bloom, and turn out raisins equal in appearance to those dried in the sun. The managers of the Natoma water company are making about 100 tons of raisins this season from Muscat of Alexandria grapes, grown upon the company's lands near Folsom, and are curing entirely by artificial heat. The grapes, before being placed in the dryers, are dipped into hot lye in order to render the skin tender and facilitate the curing. They are using two machines of large capacity, known as the Reynolds drier.

Sweating.

When the curing of the grapes is completed, the stems will be found to be very brittle, and if the raisins are handled while in this condition many of them will fall from the bunches, and thus detract largely from the value. In order to prevent this, while the raisins are being packed, they must be subjected to a sweating process. This is accomplished by placing them in tight boxes, or in a room prepared for the purpose, in which they are in-

Continued on Page 338.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. WEBSTER; Secretary, AMOS ADAMS.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Grangers' Business Association of California

—Notice of Assessment. Principal place of business and Secretary's office, Grangers' Building, northeast corner of California and Davis streets, San Francisco, Cal.

Notice is hereby given, that at a meeting of the directors of the Grangers' Business Association of California, held on the 31st day of October, 1876, an assessment of two and one-half dollars ($2.50) per share was levied upon the capital stock of the said corporation, payable in gold coin of the United States, to the Secretary, Amos Adams, at his office, No. 40 California street, San Francisco, Cal., on the 10th day of November, 1876.

Any stock upon which this assessment shall remain unpaid on the 30th day of December, 1876, will be delinquent, and advertised for sale at public auction, and unless payment is made before, will be sold on the 17th day of January, 1877, to pay the delinquent assessment, together with the costs of advertising and expenses of sale. AMOS ADAMS,

Secretary of the Grangers' Business Association of California; Office in Grangers' Building, 40 California street, San Francisco, Cal.

GRANGE DIRECTORY.—A full list of Subordinate Granges, Masters and Secretaries, of California and Nevada, is published as often as once a quarter in this department. See issue of Sept. 23d for latest insertion

P. OF H.—Subscribers who pay fully one year ($4) in advance for the PACIFIC RURAL PRESS can receive the CALIFORNIA PATRON *free*, or other premiums. See our premium list in another column.

Matrons' Meeting of the State Grange.

[Written for the RURAL PRESS by CARRIE A. COLBY.]

Having waited for more than a month for a report of the Matrons' meeting held in connection with the late session of the State Grange, I have concluded to act upon Brother Dewey's hint and give a few brief notes for the benefit of those who could not be present.

After this lapse of time I feel that there should be an executive committee to supervise my report, in case my memory should need jogging or my judgment should err in giving to the world some experiences not intended for the public ear.

If any such criticisms should be made, will not some sister be kind enough to write a supplement, in which all the good things lacking here shall be duly served up?

I wish it were possible to convey with pen and ink an idea of the enthusiasm that animated our meeting as one after another expressed her devotion to a cause from which women of the present and children of coming generations hope so much.

It didn't take long to open the meeting, one of the sisters using as a gavel a box of "Northrop's Vermont True Blue," that Sister Jeanne Carr had brought us all the way from the Centennial, and dispensing with preliminaries, we proceeded directly to business, not having the bugbear of parliamentary tactics before our eyes.

It was first proposed that we should hear something about Pomona Granges.

Sister Jeanne Carr

Explained that they would perhaps be best appreciated where a numerous membership in the Grange called for representation by delegates, in order to facilitate the conduct of its business.

Also, it was suggested, that instead of creating a "privileged class," it affords all an opportunity for promotion, since those who make themselves most familiar with the work of the Order will be most likely to be chosen as representatives in the Pomona Granges.

Sister Carr next spoke from a full heart of her recent observations among the laboring classes in the East, especially in the large cities, where she had witnessed the suffering consequent upon the rule of monopolies, and the disheartening conflict between labor and capital.

Her facts and figures, showing the appalling number of honest workmen who are out of employment because monopolists refuse to pay living prices for labor, was enough to bring despair into our hearts and faces, and the moral for us was shown to be that our duty here and now is to see that similar chains are not riveted upon our own hands, from which our children even may not be freed to the third and fourth generation.

Sister Blanchar

Clinched the proposition by urging that we can all do something toward freeing ourselves from the bondage that is already felt by the producer in California. Her text was "Patronize our own institutions," and "Pay as you go," two golden precepts upon which she enlarged and insisted in the most practical way.

Let us send our wheat, butter, eggs, poultry, dried fruit and honey to the Business Association, and purchase our groceries, etc., in quantities through the same agency.

The second clause of the text met a somewhat excited opposition on the part of some who cited farmers on the frontier, many of whom begin with a quarter section of land and a pair of hands which often must provide for the immediate wants of a numerous family. His best and only capital seems to be his credit at the country store, which is encouraged by the merchant, who knows that he is thus in a fair way to own the farm and even the proprietor himself. Whoever has thus tried keeping an open account for a year does not need to be told that it is likely to reach alarming proportions and consume the entire crop in payment.

So earnest was Sister B. upon this point that she even had the boldness to advocate a return to the simple living of our good forefathers, who denied themselves the luxuries of tea, coffee and sugar, that they might found for us the noble institutions of freedom in religion and education.

Let the butter, eggs and poultry pay grocery bills, and thrift in the domestic economy will soon bring astonishing returns that will cheer the hearts and stomachs of the household.

The burden of debt is rightly denominated bondage, and until our California farmers learn the secret of paying as they go, the advance of our prosperity as a State must be seriously checked. After all the arguments were heard pro and con, the pros seemed to have the best of it, and the exceptions to only prove the rule. Another point urged by Sister B., as vitally affecting the permanent welfare of our Order, was the education of our

Sons and Daughters

To love the Grange and the interests it is designed to cherish; that it is our duty to perpetuate this institution and make it a power to accomplish all that its founders in their wisdom proposed.

Again she had evidently struck a key note to which many responsive chords vibrated. One sister whose name we did not learn, thought that something should be done to bring our young people into the Order, and to provide attractive employment for them when there. Her son was a member, but didn't see any fun in it so long as he was the only youthful person in attendance. Her younger children could not even attend the harvest feasts, so they very naturally regarded Saturday as one of hardship, and wished "there wasn't any old Grange," and that something might happen to "burst it up" as soon as possible.

The experience of nearly all the Matrons seemed to be that children could be taken by rotation to the harvest feasts, and in many places young people predominate in the Order. After an animated discussion of the conveniences for taking children to the Grange and leaving them safely on the outside during the session, Sister B. related a plan for gathering them into an organization by themselves, representing our Order in miniature as far as may be thought best by the proper authorities. At this juncture two representative sisters (Strentzel) from Alhambra Grange, Martinez, with whom the idea originated, appeared, just from a shopping expedition to purchase an outfit for the Centennial. Before

Sister Louie Strentzel

Could regain her breath she was called upon for the details of the plan and its success thus far.

In response she drew a graphic picture of Saturday on Grange days both for mother and children. The latter were pressed into kitchen service on the morning of their only holiday; for was not the baking and scouring to be accomplished in half the usual time? In the afternoon baby must be taken care of, while the "boys" climbed trees, dangled by the trousers upon vicious fence nails, ran riot with the calves or tormented nurse and baby in the house. No wonder it was set down as a black day in the children's calender.

Now this Grange millennium, which seems to have almost begun in the goodly little town of Martinez, opens a crevice large enough to afford us a charming glimpse of what it will be when the daughter and the boys work with a will because they have arrived at the dignity of Worthy Masters and Overseers and Lady Assistant Stewards and pass words and signals and regalia. How quickly and easily wilt the mountains of work disappear under the ready, united hands, and then what an educator the Grange will become. But we must let Sister S. tell of her own work among the little ones, and it is time to say, too, that no organization has been actually formed, but the meetings are regularly held preparatory to this end. Each one is required to do something, if only to lisp the alphabet, and then the beautiful new piano is a teacher worth untold sums to some of those eager, music-loving children, and some one always plays upon it for their especial benefit. Those who can, give recitations, and the programme is varied sufficiently to meet the wants of all from week to week. You will see, too, that there must be, and is, a guiding hand in all this, and happy the community who has such disinterested and benevolent spirits to devise these good things for the children.

In passing I must ask, in behalf of the California juvenile Grangers that are to be, if the Secretary of Alhambra Grange will not report the organizing of juvenile Grange No. 1, when it takes place.

Sister McMahon.

From Putah creek, added her experience in poultry raising, butter making, etc., and remarked that she had earned her present recreation by staying closely at home all summer and attending to household duties. If anybody wants to know how to make poultry raising profitable we refer such to her instructions, as her own Leghorn chickens and bronze turkeys seem to have made marvelously rich returns, according to her statistics, carefully reported but not remembered with sufficient accuracy to be repeated here.

Sister Hannah Carr,

Lady Assistant Steward of the State Grange, related some personal experience which was very interesting, and her first and last word to all Matrons is to stand by the Grange, as the only organization through which equal rights are accorded women, where the definite object is our elevation, with the opportunity to work out for ourselves the problems that so vitally concern our privileges and the welfare of our children.

Another point was suggested for discussion relative to the

Injustice of the Present Property Laws,

Affecting the rights of widows and half-orphan children. Sister Jeanne Carr remarked that the subject would involve endless discussion, but that if Matrons are true to themselves and true to the Grange our organization will be the "entering wedge" to shatter the false system of laws that has so oppressed woman for all time, and to which she has hitherto so weakly submitted. I must not forget to mention that

Sister Higgins,

Of Santa Barbara, was present with her sweet, cultivated presence, and a mother's heart overflowing with a sense of a mother's duties and responsibilities, and above all, the feeling that the Grange affords women an opportunity for concerted action that they have never before enjoyed.

So, instead of settling down and thinking that we are tired of the Grange, and cannot afford so many of our precious Saturday afternoons in attendance upon it, we need more than ever to plan for it and make it effective in accomplishing the good we desire for ourselves, our families and our entire community. Each locality must furnish especial subjects for discussion, and it was proposed that Matrons sometimes hold a session by themselves to discuss domestic matters. For instance, healthful cooking, servants, dress reforms, etc., ad infinitum.

I think there was no member present who did not feel new courage for the tasks and burdens that are being crowded upon us more and more as greater demands are made by the growth of our children, benevolent objects at home and abroad, and the thousand-and-one problems thrust upon us by an advancing civilization. After a reluctant and tardy adjournment, Sister Jeanne Carr exhibited a Centennial album made up of cards and circulars collected in the Centennial buildings, showing improvements made in household utensils and food prepared for healthful and speedy cookery, and all domestic labor-saving machines. To render these practical we have only to see the album and give the address of the agents of them to our grocers and hardware merchants to whose interest it will be to give speedily and, generous orders for supplying for the Pacific Coast.

We cannot help sending a greeting in our hearts to the Centennial visitors from our Patron ranks, who, we hope, are already homeward bound, since the great international show is a thing of the past, and to them all we say, a sister's hearty welcome home.

Benicia, Cal., Nov. 13 h, 1876.

The National Grange in Session.

The National Grange met Wednesday, at Chicago, and it is probable that all the States and Territories where the Order exists are there represented. This body, composed of intelligent representative men and women, ought to devise ways and means whereby the interests of the agriculturists can be better promoted and fostered. The subject of co-operation in trade and in the marketing of the farmers' produce is to receive due attention.

There are also many reforms which we would like to see inaugurated. Several of these have been recommended by our State Grange, and our worthy representative requested to urge their adoption. In the first place, we recommend that all degrees above the fourth degree be abolished. We do not believe in caste and dividing lines in that respect, but claim that all good Patrons should stand upon the same plane of equality. We do not believe in fish for the one and flesh for the other, but rather that all should be served alike. The most obnoxious of all these higher degrees is the seventh. It ought to be wiped out of existence, for it is nothing more or less than a ring to perpetuate the members of it either in office or as members of the National Grange.

We also recommend that the National Grange Constitution be so amended as to allow the Subordinate Granges, in case of the absence, inability or disinclination of the Master of the Grange to attend the session of the State Grange, to elect a Past-Master to represent the Grange. The justice of this proposition is self-evident and requires no argument to demonstrate it.

The time of electing and installing the officers of the Subordinate Granges was requested to be changed, as to California, so as to elect officers in April and install in May. This change is required by the bad condition of our country roads in December and January, and the inclemency of the weather at that time of the year; and we hope to see the amendment adopted. But while changing the Constitution in this respect, why not change it so as to give the State Granges the power of regulating such of their local affairs as this one here proposed? We believe that the State and Subordinate Granges should have the fullest power consistent with the welfare of our Order; the more so because of the difference of climate, interests and requirements of the different sections of our country. For instance, the going to a Grange election or installation in Maine, in a good sleigh, wrapped in warm furs and driving a lively team, is very different to going to a Grange meeting in California, over, or rather through, an adobe road, with mud and slush up to the axles; the one is pleasure, the other an abomination.

There is still another change which, though not mentioned by our State Grange, will, we feel sure, be urged for adoption by the better class of the Patrons in the National Grange, and that is to so change its constitution that it shall only meet once in every two years. This is required for economy, and because it is not well to have too much legislation. The sessions of the National Grange are expensive affairs, and their costs come out of the pockets of many thousands of poor farmers who cannot well afford to contribute from their scanty and hard earnings, that these brothers and sisters of the National Grange may spend two weeks of every year in session in the parlors of expensive hotels, to hear themselves talk, visit places of note and have a good time generally. —*California Patron.*

Election of Officers in Subordinate Granges.

As the time draws near at hand when Subordinate Granges of the State will be called upon to elect officers for the ensuing year, a few words on the subject may, at this time, be appropriate. Experience has demonstrated that the success, aye, the very life itself of a Grange, mainly depends upon the untiring exertion, devotion to duty, energy and efficiency of all the officers of the Grange, but chiefly of the Master and Secretary, for upon these officers devolve the most important and at the same time the most arduous duties. Punctuality of attendance is another requirement which should not be lost sight of. The human mind is so constructed that we are very apt to follow the example of others; hence the great necessity of the officers of a Grange setting a good example to its members, by being punctual in their attendance of the meetings of the Grange, punctual as to day and hour of meeting.

The Subordinate Granges have now been long enough organized to know well the qualifications of its members to fill the several offices therein, and it is their duty to act upon this knowledge in the selection of their officers.

Intelligence and ability are always good recommendations, but are not the only essential requirements to make a good Master. In considering the qualifications of a person for this important position, the first question should be, is he a live man? is he energetic and enthusiastic in our cause? has he proved himself such since his connection with the Order? does he command the respect and esteem of his fellow Patrons and of his fellow citizens? These questions answered in the affirmative and the way is clear enough, for if elected he will most likely prove to be "the right man in the right place."

The Order of Patrons of Husbandry in California has gone through a very severe ordeal, one that we should not care to see repeated; and yet our early misfortunes have been productive of much good, and we have had an experience which will prove valuable, if we are determined to profit by it. We have learned to distinguish the chaff from the wheat. All those who, actuated by sordid motives, joined the Order for what they could make out of it, have either voluntarily or forcibly left our ranks, and their places are now filled by men actuated by nobler impulses and more liberal views. Men who are working for the common good of the farming masses of our people; men who seek to perpetuate the existence of our Order for the social, intellectual and moral benefits to be derived from it, as well as the benefits which will be the sure results of co-operation, of united and harmonious action among the farmers; from this class of intelligent and progressive farmers would we recommend the Subordinate Granges to select their officers, and then during the coming year we will be found more firmly united and prosperous than we are even now.—*California Patron.*

PROCEEDINGS OF THE LAST STATE GRANGE.—I hope to be able to commence mailing the proceedings of our last State Grange about the 16th inst. I finished writing them up and took them to the printers on the 1st of this month, who promised to have them printed by the 9th inst., but they failed to come up to time. I think without doubt they will be ready for me by the time above indicated. I shall send out with them copies of the Amendments to the Constitution and By-Laws as adopted by the State Grange. These Amendments are so printed that they can be cut apart and pasted into the By-Laws. I will also send with them blank quarterly reports for Secretaries and Treasurers.—*Sec'y Adams in California Patron.*

Agricultural Notes.

California.

ALAMEDA.

Gone to the City.—Hayward Cor. Alameda *Independent:* One of our oldest and most prominent citizens, Mr. H. W. Rice, who has been identified with the progress of our town for the past ten years, has sold out his machine shop to Hawley & Co., of San Francisco, where he will hereafter reside, and construct his straw burners in the interest of the above named firm. We are indeed sorry to lose so valuable a citizen, and wish him continued prosperity in his new home.

Euoalyptus Forest.—The encalyptus plantations owned by ex-Surveyor General Stratton, are situated in Castro valley, one and one-fourth miles north from the town of Hayward. The original farm, on which these beautifnl trees are growing, is some 60 acres in extent, and the trees were set out six years ago. One year after, another farm a half a mile distant east was planted with trees, the largest not over 12 inches in hight. This farm contains upwards of 130 acres, making altogether 190 acres in the two plantations, on which the trees stand at an average distance of eight feet apart. Last year one acre was cleared, producing 14 cords of wood, which sold for $9 per cord. The stumps were left remaining in the ground and new sprouts have grown from them, to a hight of 18 feet. In nine years more these same sprouts will produce another 14 cords of wood, if let grow that length of time. Of 500 trees cut down last year, all but five per cent. started a new growth. This year the entire forest will be trimmed out, leaving but 100 trees on an acre; these will be left for timber. The wood in branches was cut off, producing upwards of 60 cords of very good fire wood, and it is estimated that when this forest is ten years of age it will yield $50,000 worth of stove-wood. Aside from this, the wood is spoken highly of as a valuable production to be used in the manufacture of light furniture, toys, etc., for which there is sure to be a constantly increasing demand in this State. If the farmers in the dry valleys of California would cultivate the eucalyptus their lands would be benefited thereby, and it would also be a source of profit to them, for this hardy tree will readily grow, and can be easily be made to thrive on lands that are of no benefit otherwise. A visit to the wonderful forest of which we have made mention will readily demonstrate this to be a fact.

BUTTE.

Removal.—*Record*, Nov. 11: The trustees of the agricultural society advertise for proposals to remove the pavilion from its present position to the lot owned by the society. Contractors should consult the call and be prepared to hand in their estimates by the 9th of the coming month. We hope to see the pavilion properly placed on the society's grounds and fitted up in a manner to be ready for service by another season for holding fairs. The society has held no fair for the past three years, and should make preparations to have a good one in the fall of 1877.

COLUSA.

Fairview.—Cor. Colusa *Sun*, Nov. 8: The late rains have facilitated the work of putting in the summer fallow, so the farmers are all busy at present, and the indications are that there will be more grain sowed here the coming season than ever before, the farmers having found by experience that the foothills, which were formerly considered as good for nothing but sheep ranges, will raise good grain. Perhaps you people of Colusa may have wondered what made those black spots on the hills west of Colusa; well, that's summer fallow. The grain crop here this season was large and of excellent quality. The yield, as near as I can find out, was over 25 bushels per acre, which was about the *Sun's* first estimate. Threshing and hauling of the crop made all the farmers late with their work, consequently all are in a rush, so that many who desire to make improvements have been compelled to postpone them for this season. Yet I notice several substantial barns being built. D. Shepardson lately sold his farm to Wm. Fulton at $35 per acre. Some of the farmers hold their land at $40 per acre, while others are not wishing to sell at any price.

CONTRA COSTA.

Drying Out.—*Gazette*, Nov. 11: Although the adobe soil is yet generally in admirable condition for plowing and the work is being energetically pushed along in all kinds of soil, some complaint begins to be heard that it is getting a little dry. A moderate rain within a week would doubtless be considered timely; and with a couple of inches we could do very well for the next month.

Green Feed.—Antioch *Ledger:* Grass is growing nicely; the fields and hillsides are covered with velvety green, and in sheltered nooks there is feed for stock.

KERN.

Irrigation.—*Courier*, Nov. 11: At the annual meeting of the Swamp Land District 120 (formerly 115), held at Bakersfield, October 30th, John H. Redington, J. C. Crocker and H. P. Livermore were elected trustees for the ensuing year. The new board was organized by electing John H. Redington, President, and C. Brower, Secretary. The committee appointed at last meeting of the board to take charge of and actively prosecute the works of reclamation, reported satisfactory progress; also that preliminary surveys prove the topography of the district more favorable to a speedy, cheap and effective reclamation than had been anticipated. The action of the committee was approved and it was directed to continue a vigorous prosecution of the works to completion. The facts above are furnished us by the Secretary. We have already outlined the work now in progress. The surveyors were in town on election day, and state that the progress is most satisfactory and the plans of reclamation can be readily carried out. About 100 men are at work on the canal, and the surveys will continue through the winter.

Tropical Land Colony.—A prospectus has been issued by Messrs. Jackson & Maude, of San Francisco, of the Tropical land colony, of Kern county. It offers 2,280 acres of land in subdivisions of 40 acres, at $25 per acre, the estate of A. R. Jackson, deceased. The lands are among the best in the valley, and were selected by Mr. Jackson many years ago, when he had the choice of an immense body of the most fertile lands in the State. The price at which they are offered is less than was paid last year for whole sections of inferior land, a few miles from them, by men who bought for speculation and now hold them at $40 per acre, though, in anticipation of a greater rise, they are not offering them. These lands are on the highway to Los Angeles, adjacent to the farm of W. H. Sonther, where a most flattering test has been made of their fertility. The water supply of the Kern Island canal is a great inducement to the settlement of that section of the valley. The natural grasses saved great herds of stock driven in from the coast in the drouth of 1864, when all parts of the State suffered except the lands moistened and fertilized by Kern river.

LOS ANGELES.

San Fernando Valley.—*Express*, Nov. 11: The San Fernando valley proper is about 18 miles long, from west to east, with a width varying from eight to 12 miles. The following are the principal firms cultivating land in this valley this year: Van Nuys & Co., 5,000 acres; Workman & Co., 3,000 acres; Lankershim & Co., 3,000 acres. The land sown in barley last year will also be sown with the same grain this year, about 2,500 acres being devoted to the raising of barley. About 4,000 acres have now been sown, but very little grain was in the ground in time for the rain of last week, which, however, was not sufficient to sprout what had then been sown. From these facts and figures it will appear that, should the season prove propitious, an unprecedentedly large yield may be expected. When we consider that, a few years ago, this vast territory was one unbroken waste, we can form some idea of the extent of the work now in progress. The San Fernando valley is destined to become one of the most important feeders of Los Angeles.

The San Joaquin Rancho.—Anaheim *Gazette*, Nov. 11: Several weeks ago it was announced that this fine tract of land had been purchased by James Irvine, Esq., of San Francisco. The entire valley portion of the track has been subdivided into farm tracts suitable for fruit growing, dairying, hog raising and general farming. It seems to be the design of the owner to have the tract put under cultivation and productiveness immediately, either by selling or renting. Within the last two weeks 15 families have moved on to the land, and several hundred acres have been broken. The settling up of this rich body of land is of great importance to Los Angeles county, and especially the Santa Ana valley. Several tests made during the last year prove that a large portion of the land is superior wheat land.

MENDOCINO.

Ukiah Potatoes.—*Democrat*, Nov. 11: There has not been much growing of potatoes hereabout, in fact very little. A. O. Carpenter has been experimenting in that line, and the very last of May put out some seed potatoes he received from his brother in Kansas. The result was 200 pounds of fine potatoes from four pounds of seed. They were of the Climax and King of Early varieties, and some of the former weighed two and a half and three pounds each.

MERCED.

Timber Culture.—*Valley Argus*, Nov. 11: From year to year, as the season approached for planting, we have urged upon settlers in the San Joaquin valley, in these columns, the advantages of the culture of trees, not only for shade, ornament and fruit, but for timber and fuel; and also for the purpose of climatic improvement in respect to increase of moisture. The greatest back-set to the settlement of the great San Joaquin plains is the want of timber for building, fencing, and fuel, and the total lack of timber needed for the manufacture of wagons and farming implements. These wants can all be supplied in comparatively a few years, by the planting and cultivation of forests by farmers, and we cannot too strongly urge upon all land owners the importance of a general movement on their part toward the raising of timber upon the dry ranches of the valley and foothills. It has been ascertained by actual experiment that trees of various kinds will thrive upon the dryest soils in this section of the State if planted at the proper season, and receive a little attention in the way of watering and cultivation the first summer after planting. In some instances trees have lived and thrived here in this town without any attention having been given them whatever after planting. So far as experiments have developed, we believe the Australian gums to be the hardiest, as well as the most rapid growers, of any trees yet produced in the San Joaquin valley, though there are many other kinds of trees, some of them nut-bearing, and valuable also for timber and fuel, that can be raised by any farmer without inconvenience or considerable expense, that in the space of five or ten years will prove of more profit annually than the crops of grain now being grown upon the lands. After the first, or season of planting, trees need no attention whatever, except, perhaps, a plowing, and covering around the roots with straw or other trash; and they will grow without either if the stock is kept from them. Every farmer who owns land ought not only to plant trees about his house and barn, but also around his farm, and in other suitable places for the growth of forest trees. The rains will soon commence, and as trees can be obtained at very low prices at the nurseries, we advise all farmers to try the experiment of planting a variety of trees for timber, nuts and fuel.

MONTEREY.

Honey.—Castroville *Argus*, Nov. 11: Mr. R. J. Adcock has an apiary near the San Miguel canyon. He embarked in this business by the purchase in November last of 125 hives of Italian bees, at a cost, in round numbers, of $1,000. By last spring the increase of these alone amounted to over 150 per cent., the proprietor being at that time able to count, as a total, 320 hives. From the latter, during the present year, have been produced 10,000 pounds of honey for market. A considerable portion of this, strained and canned, has sold readily at 20 cents to 25 cents per pound, the remainder, in the comb, being disposed of at lower figures. A careful account of sales kept by Mr. A. shows, as gross receipts, for 10,000 pounds sold, $1,600, or at the rate of 16 cents per pound. From this amount are to be deducted, as expenses, including the personal labor of the proprietor, $800, the net balance being also $100, very nearly enough to cover the cost of the original stock, which, as we have seen, was $1,000.

NAPA.

Work and Growth.—*Reporter*, Nov. 11: Mr. J. M. Mansfield tells us that the season thus far has been the most favorable for farming operations he has ever known in this valley. The ground is not only in good condition for plowing on the surface, but is wet to a considerable depth. Summer-fallowed grain in the upper Sacramento is up and growing finely. Mr. Mansfield tells us that he and his partners, Messrs. Young and White, have 1,000 acres up and doing finely. Hon. John Boggs has 1,800 acres.

SAN BENITO.

Early Work.—*Advance*, Nov. 11; In every part of the county where ground was plowed and seeded early the past season, the farmers reaped a fair crop, and where this work was neglected and delayed the yield was in nearly every case small and unprofitable. It is the prevailing opinion among our farmers that ground should be broken as soon as moisture has reached a sufficient depth to work it with freedom. When that moment arrives no man who wishes to gain a liberal reward for his labor should hesitate to speed the plow.

SAN LUIS OBISPO.

Late Rains.—*Tribune*, Nov. 11: On the 28th of October, between 12 o'clock and 6 A. M., there fell 1.16 inches of rain. For a week thereafter it threatened more continually, but on Monday of the present week it cleared up warm and delightful. The grass started up with vigor, but unless more rain comes soon it must wither and perish.

SAN JOAQUIN.

Chicoory.—Stockton *Independent* Nov. 9: The production and manufacture of chiccory for its use as an adulteration of coffee is carried on quite extensively in this county, the factory where it is ground and put into marketable shape being located on the east bank of the San Joaquin, a few miles southeast of Stockton. A large area of land in that vicinity is yearly devoted to the growth of chiccory, and the rich alluvial soil seems to be particularly adapted to its luxuriant growth. The chiccory grows wild in great profusion along the lanes and by-ways in England and most parts of Europe. It is a species of dandelion, or rather it belongs to the same botanical family as the dandelion, and there is a great resemblance in the shape of the leaves of the two, although those of the chiccory are much the larger, coarser, and darker colored. The root of the chiccory is fleshy and milky, and grows about the size of a parsnip or carrot. They mature in October, when they are taken from the ground and spread out to dry on raised platforms. A few days' exposure to a hot sun makes them sufficiently dry for the roasting furnace, which is made in the form of a cylinder suspended over a hot fire and kept revolving until the roots are parched to a crisp. This and the drying process reduces them about one-fourth in bulk. After roasting the roots are put through a mill and ground to a coarse powder, like coffee, when it is barreled and shipped to market. There seems to be a good demand for all the products of the factory of which we speak, and it is no doubt a profitable and remunerative speculation. The beverage made from pure chiccory is not unpleasant to the taste, although chemical analysis proves it to possess few of the elements in common with coffee, and very little of the nutritive properties commonly ascribed to it. In cases where it is used for a long time its effects are often deleterious, especially upon the nervous system. One variety of the chicoory is cultivated in England as a salad, the tops having a pleasant, slightly pungent flavor, and even the common variety is sometimes eaten here when other salads are scarce, but it is very coarse and strong and rather too suggestive of the diet upon which Nebuchadnezzar was for a time compelled to feed.

SANTA BARBARA.

Beans.—Lompoc *Record*, Nov. 4: G. W. Richards hands us in the average yield of beans per acre, of the piuk variety, at 2,230 lbs. per acre. This yield shows what intelligent and judicious farming will do. At two cents per pound this land yields per acre, $44.60.

SISKIYOU.

French Creek.—Cor. Napa *Register*, Nov. 11: The people here mean business. The farmers are busy digging potatoes and hauling in their corn crop. Onions sell as low as 1½ cents: potatoes, 1 cent; beans, 6 to 10; oats, 1½; hay, timothy, $8 to $15 per ton; corn, 2 to 3 cents per pound. Butter is worth 35 cents; cheese, 18 cents; beef on foot, 4 cents. Everybody seems happy and to be doing well. Truly, contentment is better than riches.

SONOMA.

Early Seeding.—*Russian River Flag*, Nov. 11: Summers Brumfield, after 12 years' experience on a farm of average quality in this section, has reached the conclusion that fall-sown grain produces larger and longer heads, and after making up for the loss by drowning or winter killing, leaves a large margin in its favor over grain sowed in the spring. He has tested this matter by sowing part of a field in the fall and the other portion in the spring. Mr. Brumfield does not claim to be a scientific farmer, but from actual experiment has reached the above conclusion.

Alfalfa.—Sonoma *Democrat*, Nov. 11: We learn from the *Russian River Flag* that Mr. William Mulligan on Sausal creek has 24 acres in alfalfa, and is preparing to sow 40 acres more this fall. He says it costs only six dollars per acre to plant and reap alfalfa, and when put on the right kind of soil it is the most remunerative crop raised. He has demonstrated by experience that 12 head of sheep, or three cows will live the year through and fatten upon an acre of average alfalfa.

SUTTER.

The Farming Outlook.—*Banner*, Nov. 11: Notwithstanding that a short time ago the farmers of this State felt somewhat depressed, and almost discouraged, on account of the meager profits realized from the sale of their produce, they are all at work again as cheerful and hopeful as ever. As soon as the late storm subsided, they appeared to be seized with new energy, and every available plow and harrow was set at work. The summer fallow in this section is all in and plowing is being pushed as rapidly as possible. The weather is all that could be desired, and the ground is in excellent condition, Unless heavy drying north winds prevail, the ground is moist enough to admit of plowing for six weeks yet without any more rain. One month of good weather would enable most of the farmers to get through sowing. From present indications, there will be a larger acreage sown this year than at any previous time, and the only fear is that some may miss it by sowing all their land and leaving none for summer fallow. The inducement is strong to put in every acre when the weather is so favorable; but should the next season be dry it would leave some with no crop.

TULARE.

Sheep.—Visalia *Delta*, Nov. 11: One of the largest and finest bands of sheep that ever passed through Visalia, went through Court street, in front of our office, last week, bound to fresh pasturage at the Cottonwoods, where the owners, White & Fisher, have a tract of 10,000 acres, which have not been grazed this season. Mr. White informs us that the average shear of this flock—all ewes—will be about eight pounds, and the increase, one lamb to each sheep. Lambing will commence in about two weeks, and the amount of bleating that will be done by this little flock, and the number of tails that will be clipped off, we will leave to the calculation of our neighbors.

Oregon.

Farming Notes.—*Oregonian*, Nov. 4: Farmers in Douglas county are plowing and sowing their fall wheat. A drove of 200 head of hogs were recently sold at Rosebnrg for $2,000. The late rains in eastern Oregon have started the grass, so that the hills now look green as in spring. William A. Caldwell, Esq., the present season, threshed 1,164 bushels of oats produced from ten acres of ground, on the hill, about three miles north of Lewiston, Idaho. Mr. Thomas, of North Yamhill, raised 86 bushels of wheat by measurement, and 92 by weight, on one acre of ground this past harvest. This is the largest yield we have heard of yet. The Hillsboro *Independent* says every available team is now busy at work, and it is difficult to find teams enough to haul wood, lumber, etc. The late rains have put the ground in good condition for plowing and seeding, and the farmers are improving the time. The *Statesman* says: "Mr. I. W. Kanoff, of Eugene City, has monopolized the entire hop crop of Linn county. He engaged eight cars to take them to Portland. He effected the purchase at about 17 cents per pound. The sale is estimated at 100,000 pounds. If prices are not satisfactory in San Francisco he will ship to New York."

Washington Territory.

Wheat in Walla Walla.—*Union*, Nov 4: Wheat has fallen in price during the week. The price now ranges between 40 and 45 cents per bushel, according to quality, and no great anxiety exists on the part of buyers to invest even at these rates.



Professor Lowell's New Poet.

The *Literary World* has published this extract from a new poem, "Dierdre," which Mr. Lowell has discovered. The author's name is withheld, but the *Literary World* says that he is an Irishman, and it pronounces the poem "the finest English poem of the century."

The Palace Garden.

Near Eman's hall, beyond the outward fosse,
There was a slope all gay with golden moss,
Green grass and lady ferns and daisies white,
And fairy caps, the wandering bee's delight,
And the wild thyme that scents the upland breeze,
And clumps of hawthorn and fair ashen trees;
And at its foot there spread a little plain
That never seemed to thirst for dew or rain;
For round about it waved a perfumed wood,
And through its midst there ran a crystal flood
With many a murmuring song and elfin shout,
In whose clear pools the crimson-spotted trout
Would turn his tawny side to sun and sky,
Or sparkling upward, catch the summer fly;
On whose green banks the iris in its pride,
Flaming in blue and gold, grew side by side
With meadow-sweet and snow-white ladies' gowns,
And daffodils that shook their yellow crowns
In wanton dalliance with each breeze that blew;
And there the birds sang songs forever new
To those that loved them as friend loveth friend;
And there the cuckoo first his way would wend
From far-off climes and kingdoms year by year,
And rest himself, and shout his message clear
Round the glad woods, that winter was no more,
And summer's reign begun from shore to shore.

Beside that merry streamlet all day long,
From month to month, was heard the craftsmen's song;
For they were gathered there from many lands,
And fast the palace grew beneath their hands.
Until each fretted roof and cornice fold
Shone through the woodland sprays like fiery gold.
Then round the flowery slope and level space
They built a giant wall, from cope to base
Unbroken, save by one small massive door
With the king's shield in porphyry fashioned o'er.
And guarded by a triple gate of brass
Through which, unbid, no living wight could pass.
And never upon mortal's proudest dream
Did such a fairy sight of splendor gleam
As that gay palace glowing in the light,
With doorways carven of the silver white,
And doors of burnished gold and ivory,
And halls roofed o'er with the pink cedar tree;
And garden glorious with all flowers that grew,
And lawn in whose green midst a jet upflew
Of water from a well of carmogal,
Backward again all diamonded to fall
In breeze-blown mists and showers of flittering spray
Upon the goldfish at their happy play.

And there they nursed the babe on breast and knee,
Within these palace halls full tenderly;
And there she grew and blossomed year by year
In light and loveliness without a peer,
Like a fair fragrant flower that, time by time,
Gains some new beauty in its summer prime;
And oft about the garden she would run
And like a fairy dance in shade and sun,
And make companionship with everything
That through the garden moved on foot or wing.
And scarce seven years had passed till, with her tongue
Nimble with elfish questions, she had wrung
The very heart from out her nurse's breast;
And all this time did no eye living rest
Upon her save the king's own royal eye
And Caffa's, and the lady's proud and nigh
Who nursed her, and old Lavarcam's, the dame
Who oft in fear and wonder thither came
To talk with her beneath the garden bowers;
And there amid the brightness of the flowers,
Laughing the child would say—

"O Lavarcam!
Come tell me!—Oh come, tell me what I am!
Did I come here just like the summer fly
To sparkle in the sun and then to die?
I've asked the flies full oft, but murmuringly
They said they were too filled of present glee
To give me answer, and they passed away;
And once unto the streamlet did I say
'What am I?'—for in grove or garden walk
I oft feel lonely and perforce must talk
To all things round that creep or walk or fly,
And well I know their speech. And 'What am I?'
I asked the stream; and it was churlish too
And would not speak, but from its weeds upthrew
A great brown frog, puffed up with too much pride,
And 'Ugly! Ugly! Ugly!' hoarse he cried;
And then from off the streamlet's grassy brim
He made great mouths at me, and I at him,
Until I grew afeared of him and me,
And ran and ran by bank and rustling tree
Up to the fount to see my goldfish glance,
And with them in the sun like this to dance!"
Then, as a swallow that from o'er the foam
Returns at last to her dear native home,
And filled with joy beneath the branches cool
In airy circles skims her favorite pool,
So round the fountain with light foot and free
The little elfish maid danced gracefully,
Now here, now there, in her wild gambolings
O'er the smooth grass, as if she too had wings!

Among many amusing anecdotes which appear in the journals and letters of Dr. Norman Macleod there is one which he calls a specimen of a boy's theology. It is as follows: Johnny—"Mamma says that good angels keep good boys." Aunt—"Shall I leave the candle burning? Are you frightened?" Johnny: "Yes—no—yes. Leave it burning." Aunt—"What are you frightened for?" Johnny—"Rats." Aunt—"Think, dear, about the good angels." Johnny—"Can they kill rats?"

"Gimme something to cure a boil," exclaimed a citizen as he dashed into one of the drug stores the other day. "Ah! so you've got one of the things now, have you?" smiled the clerk. "Yes sir, and it's just in the right place." "Just in the right place?" repeated the clerk. "Why—why, where is that?" "On my hired man," was the sweet reply. And the clerk saw the point.

The Donation Party at Willowbrook.

So many confused and contradictory rumors have been circulated about the last donation party that I (who have heard the whole story from my friend and neighbor, Miss Mix) would like to give the world a plain, unvarnished account of the whole festivity.

Let me, then, introduce my informant, Miss Melissa Mix, spinster, owning to 40, moderately well endowed with this world's goods, housekeeper and care-taker of her only brother Ralph, some years her senior, both of them prominent members of the Willowbrook church—and thus heralded, she shall tell you the story she told me:

"Of course we can't give our minister much of a salary, you know, Miss Harwood; but we've always calkilated to get a man whose heart wasn't set on filthy lucre, as the 'postle says.

"I must own we hain't had much success, for, would you believe it? out of the five candidates that preached here the year we built the church, not one was willin' to stay and do the Lord's work.

"Why, there's only about 60 families in our church, and it was settled that first winter that $6 a family would be a fair tax, makin' nigh onto $400 a year, you see; yet it's wonderful what trouble we've had to git a pastor.

"Brother Ralph thought that mebbe if we had a parsonage it would help us; so he and the other trustees bought that nice little cottage where Miss Gray used to live, with a whole rod of land belongin' to it; but law! 'twa'n't of no use; none of 'em staid the year out; and I was clean discouraged.

"When Mr. Ormsby came, nigh on three years ago, he seemed more reasonable than the rest, though he asked if we couldn't furnish part of the parsonage for him, as they was only new beginners, and hadn't much housekeepin' stuff.

"Well, the ladies was so well plessed with him that they took right hold of the work (he was to come back in a fortnight) and got lots of things together.

"There was a handsome pincushion made for each of the bedrooms—there's three of them in the house—and half a dozen tidies for the parlor, and a case for his shavin' paper, and all sent in the first week.

"You've heerd him preach, Miss Harwood, and you know how interestin' he was, and what a beautiful reader and singer too. Why, I declare I took real comfort goin' to church and sittin' under such preachin'; and so we all did, I'm sure.

"But I was tellin' you about what we gave him. Well, Deacon Stiles' daughter Sally, made a drawin' of the church, and framed it in pine cones, to hang in Mr. Ormsby's study, and the deacon he sent us a cookin' stove out of his own kitchen. He'd just bought a new one for Miss Stiles, and he come over and put it up himself, which I thought was uncommon kind.

"Then we took up a contribution to buy some furniture, but ready money was skurse just then, so we only raised enough to get a pair of chiny vases and an inkstand.

"But Silas Hart, that sold 'em to us, was one of our members, so he threw in a chiny dog for the baby and a match-box for the parson's wife.

"Miss Jones and Uncle Midian sent in a new painted bedstead and a kitchen table, and so I told Ralph I'd give 'em a couple of kitchen chairs and our cradle, the one we was both rocked in. So I did, and I pieced a real handsome little quilt for the cradle, a sunflower pattern, all out of spick and span new calico, too.

"Well, it's 'most too bad to tell, but Mandy Jones, who went to help Miss Ormsby git to rights, told me that she did act dreadful, and not a bit becomin' a minister's wife.

"She went all around the house lookin' as if she was ready to cry, and at last she sot down in the parlor on her trunk, and began to laugh at the vases and the inkstand, and then wound up by findin' fault with the stove, which she said looked as if it came out of the ark.

"I've always thought she made her husband discontented, for Mr. Ormsby was such a meek, quiet, unselfish man that he never would have made any trouble if she hadn't been always complainin' and puttin' him up to grumble.

"But I'm wanderin' off from my story—I started to tell you about the donation party. You see, the first year we got along splendid with it, and I must say I never saw a better tea-table spread than we set that night for Miss Ormsby.

"But that woman never *could* be satisfied, and she said afterward that it wouldn't take more than two such parties to ruin any family!

"It seems she found fault because we all staid to tea with 'em, just as if we hadn't a right to our tea after sendin' in all the victuals for it.

"But I don't know as Aunt Betsy did do exac'ly right, for she took Miss Ormsby's preserves to put on the table, and they was all eat that night, and I s'pose that put her out some.

"Well, as I was sayin', the second year come round, and it was read out in meetin' that the donation party would be given the next Friday.

"Mr. Ormsby read the notice, and then he looked all around and cleared his throat two or three times, as if he had somethin' perticklar to say, but after waitin' a minute he changed his mind and sat down.

"I thought he acted kinder queer, but I was quite taken up with noticin' Miss Ormsby. She got as red as could be, and when meetin' was dismissed she jest hurried out as if she didn't want any one to speak to her.

"Well, Friday came, and by three o'clock we was mostly all at the parsonage. Mr. Ormsby looked dreadful sober, more as if it was a funeral than a merry-makin', I must say; but his wife was awful. She was jest as huffy and short as she could be with every one, and she went and locked the study door and put the key in her pocket right before us all, as if she was afraid we'd touch some of Mr. Ormsby's papers or books.

"Bimeby we began to think about settin' the table; so Aunt Betsy, Mandy Jones and me went out in the kitchen to unpack the contributions. There was some pertaters and turnips (them we put in the sullen), a piece of corned beef, two or three biled hams, a pot of butter, some apple sass, a big cheese, and such a lot of biscuits it would have taken all night to count 'em.

"I began to be scart when we took out panful after panful of biscuit, and no cake to speak of. At last we come to Miss Jones' basket, and there we found 'lection cake, as well as a great batch of molasses cookies.

"I was glad enough I'd sent pound-cake and crullers; but somehow when the table was ready, there was more biscuits on it than anything else, though we did the best we could.

"Mr. Johnson sent tea and coffee from his store, besides sugar and crackers; and Amos Hull he brought a bag of nuts and some apples for the young folks after supper, he said.

"There was so many there that we had to divide 'em into three lots, the dinin'-room bein' small; and it was 'most seven o'clock when they got through eatin'.

"Aunt Betsy staid with me to clear up some; and I thought I never should get all the biscuits put away, for they 'most filled the pantry.

"For all there had been so many eaten, yet there was piles and piles left, and, as Aunt Betsy said, they wouldn't need to bake for a month to come.

"It happened so that I didn't go out much the week after the donation party, but the second Sunday after, I started off good and early for church, and as I turned the corner of the parsonage, I saw something that 'most took my breath away. Every one of them sharp-pointed pickets round the house and garden had a good biscuit stuck right atop of it! Yes, Miss Harwood, jest as sure as you live, there was Aunt Betsy's nice raised biscuits—I could tell hern by the shape—and Miss Hull's rusks, and Miss Stiles' soda biscuit, and every one of 'em wasted in that shameful way.

"Well, I stood and looked—I hadn't the strength to move—and pretty soon some of the ladies came along and joined me; and there we all stood till the last bell began to ring, talkin' the matter over and feelin' pretty mad, I can tell you.

"Mr. Ormsby had a good sermon that day, but I could hardly hear a word, my mind was so full of the biscuits.

"Miss Ormsby warn't there, and as soon as the last hymn was sung, he got up and said that he had had a call from a church in the far West, and that he had made up his mind that it was his duty to accept it. He went on to say that he would like to go that same week, and then, without so much as tellin' us that he was sorry to leave us, or offerin' to wait until we could get some one else, he gave the benediction and dismissed us.

"I can tell you there was talk enough when we got out that mornin', and some of the folks thought we ought to 'p'int a committee to ask Miss Ormsby about it, but brother Ralph said, 'No; if they was goin', let 'em go peaceable;' so they all agreed to say nothin' at all.

"We heard afterward from little Johnny Hall, who was playin' near the parsonage late on Saturday afternoon, that Mr. Ormsby, he brought the biscuits out in a big basket, and then Miss Ormsby she helped him to stick them on the pickets, and she laughed all the time as if it was a good joke.

"I don't want to judge anybody, but I never did think that woman was fit for a minister's wife, and I don't think so now.

"Well, they moved off bag and baggage, on Wednesday of that week, and we've never heard from Mr. Ormsby since, and I don't know as we want to, seein' he hurt our feelin's so, though we've never found as good a preacher as he was, and never will."

And this was Miss Melissa's story.—*Mrs. E. T. Corbett in Harper's Magazine.*

To Restore Soiled Steel Engravings.—Lay the engraving on a plate of glass a few inches larger than the picture, then pour distilled water over the same to the hight of a line and let it soak for a few hours; then pour off the water and renew the process several times, after which allow the water to drip off well and pour Eau de Javeille upon the picture and allow the same to work upon it for not more than one-quarter of an hour. After this rinse the picture off again with distilled water, and repeat the treatment with Eau de Javeille according to desire. Now rinse the picture with a thin solution of hyposulphite of soda and then an abundance of fresh water, after which set the glass and picture upright on a sheet of blotting paper and allow the water to drip off until the picture is dry. Of course great care must be taken if the process of bleaching is to be a complete success.

It was Pope who used to swear "God mend me!" and, swearing his favorite oath one day in the presence of a little boy, the boy looked at the diminished and misshapen form of the great poet, and said: "God mend you, indeed! I think it would be a good deal easier to make a new one."

Carving a Turkey.

Now that Thanksgiving is approaching, we think it well to give our young men warning to guard against the sufferings of one of their number, which is thus touchingly described:

There is nothing a young unmarried man likes better than to go to a dinner at the invitation of a friend and be asked to carve the turkey. He never carved a turkey in his life, and with an old maid on one side of him, watching him closely, and on the other side a fair girl for whom he has a tenderness, he feels embarrassed when he begins. First, he pushes the knife down toward one of the thigh-joints. He can't find the joint, and he plunges the knife around in search of it until he makes mince meat out of the whole quarter of the fowl. Then he sharpens his knife and tackles it again. At last, while making a terrible dig, he hits the joint suddenly, and the leg flies into the maiden's lap, while her dress front is covered with a shower of stuffing. Then he goes for the other leg, and when the young lady tells him he looks warm, the weather seems to him suddenly to become 400 degrees warmer. This leg he finally pulls loose with his fingers. He lays it on the edge of the plate, and while he is hacking at the wing, he gradually pushes the leg over on the clean table cloth, and when he picks it up it slips from his hand into the gravy dish, and splashes the gravy around for six square yards. Just as he has made up his mind that the turkey has no joints to its wings, the host asks him if he thinks the Indians can really be civilized? The girl next to him laughs, and he says he will explain his views upon the subject after dinner. Then he sops his brow with his handkerchief and presses the turkey so hard with his fork that it slides off the dish and upsets a goblet of water on the girl next to him. Nearly frantic, he gouges away again at the wings, gets them off in a mutilated condition, and digs into the breast. Before he can cut any off, the host asks him why he don't help out the turkey. Bewildered, he puts both legs on a plate and hands them to the maiden lady, and then helps the young girl to a plateful of stuffing, and, when taking her plate in return, knocks over the gravy dish. Then he sits down with the calmness of despair and fans himself with a napkin, while the servant girl clears the table. He doesn't discuss the Indian question that day. He goes home right after dinner and spends the night trying to decide whether to commit suicide or to take lessons in carving.

The Position of Science in Modern Life.—In the opening address, the president of the French association for the advancement of science said: Natural science is no longer content with the contemplative attitude which sufficed for Newton and Laplace. Science is now mixed up with all the person l acts of our existence; she interferes in all measures of public interest; industry owes to her its immense prosperity; agriculture is regenerated under her fostering care; commerce is forced to take her discoveries into account; the art of war has been transformed by her; politics is bound to admit her into its councils for the government of states. How could it be otherwise? Have not mechanics, physics, chemistry, the natural sciences, become intelligent and necessary agents for the creation of wealth by labor? If comfort is more universal, the life of man more prolonged, wealth better distributed, houses more commodious, furniture and clothing cheaper, the soldier better armed, the finances of the state more prosperous, is it not to the sciences that all this progress is due? Whether we wish it or not, we must needs accept science as a companion to possess her or to be possessed by her. If you are ignorant, you are her slave; if you are skilled, she obeys you. The future belongs to science; unhappy are they who shut their eyes to this truth.

Monster Umbrellas. — An English paper says: That umbrellas, or rather parasols, are the badges of royalty in Africa, as scepters and other paraphernalia are with European sovereigns, must have been impressed on the least informed in that country by the trophy which was the outward and visible sign of the power of his sable majesty King Coffee, on whose overthrow it became the possession of his royal antagonist. Coffee's umbrella was, however, a shabby affair in comparison with the handsome and gigantic sunshades just manufactured to the number of 40 by a Glasgow firm. They have been ordered by a mercantile house in the same city, and are intended to be given as presents to African chiefs with whom the merchants in question do business. Three of these parasols, or palanquins as they are also called, are about 30 feet in circumference, and the remainder about 18 feet. They are covered with a rich variegated damask silk, fringed round the edges, ornamented with a gilt ball at the top, and lined with finished cloth. The handle, which is of lancewood, is armed with a spike for tenting purposes, and a bayonet joint in the end of the stick renders the whole more portable.

An Irishman's friend having fallen into a slough, the Irishman called loudly to another for assistance. The latter, who was busily engaged in cutting a log, and wished to procrastinate, inquired, "How deep is the gentleman in?" "Up to his ankles." "Then there is plenty of time," said the other. "No there is not," rejoined the first, "I forgot to tell you he's in head first."

What Two Wives Did.

Mr. R. G. Steele, of the *Argus*, writes as follows concerning the deeds of two Merced wives: We call the attention of our readers to the advertisement of our estimable and industrious neighbors, Mrs. Spears and McMurphy. These ladies have manufactured about 100 gallons of fine tomato catsup. It is prononnced by all who have tried it to be superior to any ever offered for sale in our town. These ladies deserve great credit for the enterprise. Their husbands have just commenced the blacksmithing business in town, and finding that money was scarce, announced to their customers that they were willing to take produce in exchange for labor. This offer suited the producers who wished work done, and loads ot apples, tomatoes and other perishable articles ot consumption began to pour in. Good gracious! what was to be done? The question was soon settled by these thrifty housewives, and soon the large boiler was boiling, and bubbling, and sending forth the delightful aroma of spiced catsup. While the latter was undergoing the cooking process, the ladies were engaged in paring and cutting the large supply of apples for drying. Consequently the fruits of the husbands' labor will ultimately result in money, as the ladies find ready sale for their handiwork. If all wives would do likewise, and make up their minds to think less of dress and apeing the silly rich people, the cry of hard times would not be heard so often; merchants would not have such a long list of bad debts on their books; the seats in the churches would be filled; every one would be more content; and society would improve in morals, in literature and domestic happiness; and Scan. Mag. would starve for the lack of gossip.

Drunkenness.—I have heard the wail of children for bread, and have seen the babe pulling at breasts as dry as it the starved mother was dead. I have known a father to turn a step-daughter into the street at night, bidding the sobbing girl, who bloomed into womanhood, to earn her bread there as others were doing. I have bent over the foul pallet of a dying lad, to hear him whisper that his father and mother, who were sitting half drunk by the fireside, had pulled the blankets off his body to sell for drink. I have seen the children blanched like plants growing in a cellar—for weeks they never breathed a mouthful of fresh air—for the want of rags to cover their nakedness; and they lived in continual terror of a drunken father or mother coming home to beat them. I do not recollect ever seeing a mother in these wretched dwellings dandling her infant, or of hearing the little creature crow or laugh. These are some of drink's doings, but nobody can know the misery I suffered amid those scenes of wretchedness, woe, want and sin. —*Dr. Guthrie.*

Honorable Employment.—There is nothing derogatory in any employment which ministers to the well-being of the race. The plowman that turns the clod may be a Cincinnatus or a Washington, or may be a brother to the clod he turns. It is every way creditable to handle the yard, and to measure tape; the only discredit consists in having a soul whose range of thought is as short as the stick and as narrow as the tape. There is no glory in the act of affixing a signature by which treasures ot commerce are transferred, or treaties between nations are ratified; the glory consists of the rectitude of the purpose that approves the one and the grandeur of the philanthropy that sanctifies the other. The time is soon coming, when, by the common consent of mankind, it will be esteemed more honorable to have been John Pounds, putting new and heantiful souls into the ragged children of the neighborhood, while he mended their father's shoes, than to have been set on a throne.—*Cincinnati Trade List.*

What a Plant Did.—A little plant was given to a sick girl. In trying to take care of it the family made changes in their way of living. First, they cleaned the window, that more light might come to its leaves; then, when not too cold, they wonld open the window, that fresh air might help the plant to grow. Next, the clean window made the rest of the room look so untidy that they used to wash the floor and walls and arrange the furniture more neatly. This led the father of the family to mend a broken chair or two, which kept him at home several evenings. After the work was done he stayed home, instead of spending his leisure at a tavern, and the money thus saved went to buy comforts for them all. And then, as the home grew attractive, the whole family loved it better than ever before, and grew healthier and happier with their flowers. Thus the little plant brought a real as well as a physical blessing.

A Russian Manufacturer.—Demidoff is said to be the richest man in Russia, and he is certainly more extensively engaged in industrial occupations than any other subject of the Czar. He owns the town of Nigetalisk, in the Ural, and his 13 establishments cover altogether an area of about 38,000 acres. It is more particularly with iron that Mr. Demidoff deals, but he finds also upon his property manganese, copper, lead, gold, diamonds, etc. At his iron works, Mr. Demidoff now prodnces iron in bars, plates, rails and steel to the aggregate extent of 27,000 tons per annum. The number of workmen employed by Mr. Demidoff is about 11,000.

Young Folks' Column.

The Magnet.

[Written for the Press by Comus Canopus.]

Boys, did you ever have a magnet, or, as you would probably call it, a load-stone? Of course you know what a magnet is, for that useful little thing has not been picking up the steel tacks you accidentally scattered over the floor without your knowing its name.

We will begin to tell you what we know of the magnet, by explaining the reason why only iron, steel, nickel and cobalt adhere to it, while brass, tin, zinc and the like do not. When the scientific discoveror, Oersted, found that only steel and iron were affected by magnetism, he made an accidental discovery, and was unable to explain why non-magnetic metals were so. Some later scientist found that steel and iron were magnetic because they are good conductors of electricity, and contain certain oxides of iron, called magnetic iron ores, which brass, tin, copper, etc., although good conductors, do not contain, and therefore are not influenced by magnetism. These oxides of iron, or magnetic iron ores, exist also in an independent state, when their attractive powers are very powerful.

But, we are told, they "are mostly found in primitive rocks, being abundant at Roslagen, in Swedeu, and called the load-stone, from its always pointing when freely suspended to the Polar, North or Load Star." If a specimen of this ore in its mineral state, weighing not less than four or five pounds, he experimented upon with iron filings, it will be observed that at two opposite points the filings will gather in larger quantities than elsewhere. These points of attraction are called poles, and with their aid, after a little artificial preparation, man is enabled to carry on in safety and with certainty the marino navigation of the world.

Through with the "scientific" or introductory part, which is invariably dry and tedious, and which in this case, to you boys must be especially so, we come to the heart of our subject.

If you have a magnet, follow us throngh this article and convince yonrself that the experiments we speak of can be successfully made. Do not now, or ever, if possible, rely on anybody. If a person tells you that twice two are four, do not be content with his representation, but be able to satisfy yourself that twice two *are* four.

Take your magnet—a horseshoe one we will suppose it to be—in your right hand, and on a smooth table lay a common sewing needle; now slowly approach the needle, with the bottom end of your magnet parallel with the needle. At a certain point the needle will fly to the magnet. Now turn your needle around, so that the eye is where the point before was. Approach with the magnet in precisely the same position as it was before; now, instead of flying to the magnet, the needle will run away from it, and, if followed, will continue to do so until some magnetic article near by interferes with the current, when the needle will perform a half gyration, and its point adhere to the magnet. These opposite results are caused by the polar direction of the magnetic current, the magnet having a "north" and "south," and the needle point also. Hence, when they are turned "north" to "north," and "south" to "south," the magnet pushes instead of pulls. Needles by contact with a magnet become possessed of magnetism and a weaker power of attraction; hence, after a little while, one needle on a magnet can support, by the very tips, 10 or 12 others, all in a string.

Now, again, lay a needle on a table of moderate thickness. Bring your magnet under the table and move it, and the needle will move too. If you bring your magnet to the bottom side of the table in a way so that its north point is nearest the north point of the needle—all magnetic bodies at once assume "poles"—it will, to the astonishment of an unsophisticated observer, fly around and then settle. Needles can be thus influenced through any penetrable substance, glass not excepted, as generally but erroneously supposed. Now get some iron filings and strew them over a piece of paper. As soon as you apply the magnet beneath them, they will form themselves into regular and beautiful figures, showing the directions of the magnetic current.

If you have a compass you can verify the statement "that similar magnetisms repel" and "dissimilar magnetisms attract" by here, as before, applying "north" to "north" and "south" to "south." The needle of the compass is very easily influenced by a magnetic metal, which has often caused mis-navigation and wreck of vessels. The utmost care is required to remove all iron or steel from the vicinity of a ship's compass. It is said that Columbus discovered America by accident. Who knows but what a magnetic influenced compass had something to do with it?

A common soft iron horseshoe, weighing one pound, has been made to hold twenty-six and a half pounds.—*Pepper's Playbook of Science, p.* 209. The process by which this is claimed to have been done consists of placing the ends of the horseshoe to those of the ends of the magnet, and with a magnetized iron bar stroking from the magnet to the horseshoe.

Let us close this cursory article with an allusion to the magician in the fairy tale. He lived on an isolated island, which a proud warrior chief, clad in heavy armor, determined to conquer. He went, he saw, but didn't conquer. He rested himself against a hnge stone. When he wanted to leave he couldn't, for the stone was magnetic, and held his shield, sword and spear a powerless prisoner, where the magician derided his power. He was at last pulled off by his troops, after which he gladly came away from the magnetic land.

Good Health.

Value of "Good Health."

Editors Press:—Will you not give us the price of *Hall's Journal of Health*, and whether we can obtain it in San Francisco? We would like to have your opiniou on Prof. O. S. Fowler, as an author and physician; will you give it to us?

We read with great interest yonr "Good Health" column every time, and we cannot be too thankful for having at least one paper which will teach us how to enjoy life, for we cannot enjoy it unless we obey the laws of nature. Yes, such is the greatest enjoyment of life; and every disobedience is punished sooner or later, whether it is done by ignorance, idleness, or wilfulness, as "Philmore" truly says. We farmers as a class know very little about the laws of health, and but for our pure air and good exercise, God only knows what would become of us. The sufferings are only too great and long. We know all about the food that is required in quality and quantity to make our horses strong and active, to make our cows give plenty and rich milk, to make our hogs fat, to make our chickens lay plenty of eggs, but what is required for our own dear selves we are entirely ignorant of. We know nothing about the function of the stomach; if it gets out of order we resort to Quack's medicine, and if we have to call in an honest physician at last, he tells us, "your stomach has got more sense than your head." We do not know what to make of it. We hear sermons by the learned Rev. Stratton, or able Betts, or plucky Dillion, delivered from the text, "the ways of the transgressor are strange," but they are of very little good, because the wise will hardly need them and the rest do not understand. I tell you, Mr. Editor, your "Good Health" column is worth the subscription price to every farmer, and we can do no better than to pray for more space. N.

Santa Clara, Nov. 8th.

Hall's Journal of Health costs $2 per year, and can be best obtained by sending directly to the publishers, at No. 137 Eighth street, New York City.

The value of Prof. Fowler's phrenological work depends upon the belief of the one who makes the estimate. It is a matter of opinion which we cannot decide. His other writings contain much that is true and a great deal that is debatable. We believe him honest and a worker of much good in his way.—Eds. Press.]

Food and Health.

At a recent meeting ot the American Public Health Association, Prof. Austin Smith, of New York, gave a discourse on "Food in its Relations to Personal and Public Health." He treated the subject in a popular, rather than a strictly scientific way, and endeavored to correct certain popular errors. In the first place, he stated that there is no uniformity in the requirements of alimentation, that there is no average to be applied to individuals; and that while observation and experience will afford a measure of quantity and the selection of kinds of food for considerable bodies of men, there is no means of determining individual cases, excepting by the natural instincts of hunger, appetite and taste, and by personal experience. He spoke chiefly of the instincts, considering personal experience of importance principally as a regulator of the instincts. Hunger was pronounced abnormal, and appetite the normal condition which determines at what time and how much we shall eat. Appetite might lead us to eat too much; and then experience came in as a regulator. Appetite was not an infallible guide, but the best, nevertheless; and in this connection Dr. Flint criticised in a quietly caustic way the old notion of rising from the table before the appetite is appeased, and of eating only at regular intervals, no matter how strong the appetite may be. The instinct of taste, gustation, the speaker said, was abused even worse than appetite—shamefully abused. Appetite told us when and how much to eat; taste what to eat. Here the doctor alluded to the prevalence of poor cooking, and made a complimentary observation on William E. Baker's proposed donation toward founding a college of cookery. His remarks on the subject of dyspepsia were rather singular. He said it was a great mistake to suppose that the chief end ot man was to observe the process of digestion, and the sole inference to be drawn from this part of his discourse was that dyspepsia is frequently due to the imagination. He also ridiculed, in a polite way, the notions of people that certain articles of food, wholesome to others, are injurious to or do not agree with them.

Domestic Economy.

Baked Beans.

The *Golden Rule*, hailing from Boston, the headquarters of the baked bean brigade, has the following: We have interviewed, especially for this occasion, a housekeeper whose baked beans are worthy of the renown of that ancestor of hers who helped through the war of the Revolution by seeing to it that the soldiers home on furlough, or in adjacent camps, always had good rye-and-injun bread and baked beans fit for a patriot. And she says that the only secret about it is "to have them just right." You want to soak them over night, or parboil them in two or three waters until they are at the cracking point. If your appetite is not robust enough to eat pork and you have art enough to cook them without it, all that is required is to season the dish to the fine point of half a pinch of salt, a single shake of the pepper box, and a lump of butter, neither too large nor too small, and have a piece of fresh spare-rib roasted separately to serve with them. The beans must also be of "just the right consistency when put into the dish for baking." So far we believe it is all clear. If you have stamina enough for pork, praise your ancestry and kind heaven; and put the sweet cris-crossed piece of seasoning meat, with its possibilities of crisp rinds, in the center of the dish, with slices ornamenting the sides. All you need of the oven is to have it "neither too hot nor too slow." The beans must then simmer until they are "just done." To secure the exact shade of brown over the top, and the precise degree of heat and moisture inside needod to bring each individual beau to the very point of cracking and coalescing with its neighbor—without entirely doing it!—that is all the direction one needs as to baking. If it isn't clear, you must learn as the boy learns to swim. Then as to serving. It is the sign of an effete and over-ripe social despotism to "dish out" a pan of baked beans. Assert your independence, and preserve the integrity of your result, by placing them upon the table in the dish in which they were cooked. Let the servant pass around the empty china, if you wish, to assure the family or guest that you have it. And have enough left to know the luxury of cold beans that have a heart in them! Thus shall one ot our glorious New England institutions be restored, to add luster to the Centennial year.

How to Make Pies.

The only way to make pies, according to Mary E. Wager, is detailed in the *Rural New Yorker* thus: While visiting a friend last summer she remarked to her mother at dinner one day, as dessert was being served, that our guest did not eat pie. The mother gave a little nod with her head, which was full of significance, and said, "Well, when she sees some of my pies, she will both eat and like them, too." In due time the pies began to appear—pies of apples and pies of peach—and the mother's prediction proved true. The pies were delicious and quite free from the ordinary objection urged by hygienists and physiologists against pastry. They were made in this way: A deep dish from two to three inches in depth, was filled with fruit, pared—and, if of apples, they were cored and cut in a dozen slices, perhaps—with the requisite addition of sugar, spices and water. No under crust. The top crust, thin and flaky, came from the oven light and crisp, and free from sogginess. It retained in the fruit all flavor and the peculiar deliciousness that escapes when cooked uncovered. In serving it, a knife was used to divide the pie in portions, as is ordinarily done, and with a spoon the fruit removed from the pie dish to the dessert plate, where it formed an odorous and amber-like pile by the triangular piece of crust near it. The memory of those pies remains like a sweet fragrance. In England fruit pies are always made without bottom crust, and in dishes three or four inches deep, thus retaining the juice of the summer fruits. Certainly a more healthful way than making them in shallow pie plates, with the soggy "washleather" bottom crust.

Preserving Fruit with Honey.—The Los Angeles *Herald* says: Below we give a recipe furnished us by Mrs. Pullee, for preserving fruits with honey. We are well satisfied that in a short time honey will take the place of sugar in canning and preserving fruit, as it will be both better and cheaper. We hope that if other lady readers have tried experiments of this kind they will report success, that others may have the benefit of their experience: "I have been experimenting with putting up fruit with extracted honey instead of sugar. I think it is superior to sugar in every way. Fruit that is preserved in honey is not so apt to sour and require a second boiling. I pick my fruit, wash it, and drain off as much of the water as possible. Then I place it in some large kettle or pan and add one-third as much honey, in measure, as there is fruit. I then boil it until the taste of the honey has evaporated. Fruit preserved in this way is excellent."

Tomatoes should be sliced and boiled in their own juice without water. They should boil briskly. Twenty minutes suffices for a quart. If boiled much longer it injures their peculiar flavor. Season when ready to take up.

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ADDRESS all letters to the firm, and not to individual members, or others, who may at any time be absent from our office.

Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, November 18, 1876.

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The Week.

The week brings no solution of the presidential issue. The country has watched from morning to morning for indications of the final result, but it is still within the realm of controversy. The issue is closer than has been known in the history of the country, and the length of time required to canvass the result enables us to realize the length of waiting which our ancestors endured before the days of railroads and telegraphs. The final result now depends upon the official canvass in three of the Southern States, and it may be another week at least before the choice of the people can be announced. The events are exciting and the charges of fraud are exchanged from side to side in different parts of the country. As yet good order prevails everywhere, and thus we trust it may prevail until the result is declared by a fair count.

Another note of the week is the reclouding of the Eastern horizon, where Turks and Russians lie waiting the conclusion of the armistice which has been agreed upon. The rumors are quite redolent of war, when the stated peace is over. Following from this or other causes comes an advance of the cable rates for wheat, and a sympathetic advance is shown in our local transactions during the week.

The week has been one of sunshine and activity throughout the State. The grass and the flowers win renewed love for our soil and climate. Our sunny landscape casts a melting smile upon the snowfields of the East.

Plows and Plowing.

Plows and plowing are timely topics. They are topics concerning which there is considerable room for difference of opinion, for they are subject to the control of conditions, and as these vary, experiences and opinions conflict. Nevertheless, enough can be said upon a discordant theme to call attention to the discord and lead each one to harmonize it according to his own conditions and environment.

In the matter of plows it is not difficult to get good ones from the several excellent implements which are offered by our manufacturers and importers. Indeed, we may congratulate ourselves upon the excellence which characterizes American agricultural implements, plows included. This matter is just now winning for us new praise abroad, and we notice that one of our leading English exchanges is printing engravings of our agricultural machines with very favorable notes of their working. In plows English experience is approving our action. During the last two months the value of the double, or gang plow, which is as common as saddles in this State, has been demonstrated by public trial to be far superior to the old single plow in English soil. To the English we must go for the exact economy of farming operations, for they have no opinion which is not based upon the scales or the dynamometer. Although we are well enough convinced of the value of the double plow, it is interesting to learn its exact merit as compared with the single furrow tool. The dynamometer test applied at a recent test at Hull, showed that three horses pulling a double plow were rather less heavily weighted that two horses drawing the single furrow plow. Figures are given showing the respective drafts of single and double plows to be 336 pounds and 404 pounds, which gives the draft of a horse in each case as 168 pounds in the single plow and 134 pounds in the double. The English draw their double plows with three horses generally; a few cases being reported where the old team of two horses which turned one furrow, now have their task doubled by pulling the double plow.

The subject of plowing is the one which contains the discord to which we alluded at the outset. It cannot be doubted that there is a wider feeling in this State in favor of deeper plowing and what is known as "more thorough cultivation." Our interior exchanges have, in several cases, mentioned this as one of the promising conditions in their agricultural outlook. This is good, and where the experience of the best men, the most successful farmers in each locality, points out the value of such deep work, it is well that the general spirit is to make this greater investment for the sake of increased returns. But praiseworthy as the progressive spirit displayed in deep work is, the practice will be found to be greatly influenced by the conditions which exist, and these conditions may be very diverse. First, there is the diversity of soil; and even knowing this, it cannot be known whether there is a fair prospect for deep work unless it be known what crop, or class of crops, is to be laid upon the land. And beyond this, in the case of some crops, there is the influence of wind and rainfall and frost, which may make an outlay for extra work a doubtful investment. We do not say these things to disparage any tendency or movement toward more thorough tillage, for this is one of the things, speaking generally, which the agriculture of the State most needs, but this, like all other productive returns, should be undertaken with as good a judgment as can be made of results.

Take for example the wheat plant, for which the greatest amount of plowing is done in this State. It is not a difficult matter to so modify the culture that the plant will produce rank heavy straw and almost wholly fail when it comes to seeding. Wheat flourishes best upon a firm seed bed and with excessive stirring of the soil under proper conditions, otherwise will run to the straw stack. This is supposing that the soil be deeply stirred without subsequent packing with heavy rollers, for by rolling the requisite physical condition of the soil may be restored to a considerable extent. Such being the needs of the plant, it is easy to see why the shallow plowing or "scratching in" of the seed, is, in some localities of the State, the very best method of cultivation which can be adopted. On the other hand, there may be conditions of soil in a locality not far removed, which will reward deep culture even for wheat, because the tendency to an excess of straw does not exist. There is a difference of seasons also, and where one year deep work will save the crop, another year it may turn it to the stack unless there be active steps taken in cutting back or otherwise restraining the growth of foliage.

But when the attention is turned away from grain and towards the various root crops, it is plain that the deepest and most thorough pulverization will pay as an investment, unless, as in some localities, there be a barren sub-soil, which is best left undisturbed. It is wonderful how effective for holding moisture for root crops is the deep working and thorough comminution of the soil. Immense crops of beets and turnips are grown without irrigation on dry lands by this style of working.

While on general principles we are strongly in favor of more thorough work in cultivation, it must not be forgotten that the matter is one for individual experiment and test. How completely diverse is experience among men not many miles apart, we cannot better show than by presenting the testimony of two farmers in Contra Costa county. One is in a letter from Antioch to the RURAL PRESS last spring, in which the writer says: "Deep plowing produces for me a heavy burden of straw, with short heads and shrunken grains. Plowing three inches deep and thoroughly pulverizing the surface produces less straw and more grain. On the adobe hills of San Ramon they use a cultivator almost exclusively, and they boast that they never lose a crop."

The other experience we find in the Antioch *Ledger* of last week and the scene is at Point of Timber, not more than twenty-five miles from the places mentioned above: "George Fellows, of Point of Timber, one of the most successful farmers in this valley, writes us that he is fully convinced that the chief reason why many of our farmers do not succeed better in growing grain and fruit, is the fact that they do not properly cultivate their land. He states that he shall this season plow all his land seven inches in depth. He also adds that his experience in fruit raising has proved the correctness of this theory. In former years has failed to grow fruit only of an inferior quality, but last season he plowed his orchard twelve inches in depth, digging about the trees, and says he has never seen larger or finer apples and pears grown in Napa valley, his former residence."

These paragraphs will sufficiently show what we have claimed above and that is that the question of cultures is so influenced by local conditions of different kinds, that tests must be made in localities to determine the best practice. Not only must there be a test for localities but for the different crops. These facts do not throw any shadow upon the advancement and improvement of practices, but, as we regard them, they show the greater need that all our farmers should go to work earnestly and with the true spirit of inquiry to determine what work is best and thus our system of agricultural practices will become more enlightened, more thorough and more successful.

Transportation Inquiry.

It will be remembered that the Legislature last winter created a board of transportation commissioners, to investigate the subject of railway management in this State. The measure was in some sense a result of the agitation of the subject of freights and fares, which was caused by the introduction of the "Archer bill." There seemed to be a need that a fuller knowledge should be had of the matters concerning the building and present operation of our railroads, before the subject could be intelligently legislated about. The board of commissioners, through their secretary, Walter M. Phillips, have issued a circular calling upon the people to bring before them statements and suggestions which will aid in the prosecution of their work. From a copy which we have received we extract the following: "Among the principal objects proposed by the Legislature in creating the board of transportation commissioners is the compilation of facts and statistics connected with the building and operation of railroads in this State, and also the investigation of their management, especially as it affects the interests of their patrons and the public generally. It is believed that an impartial investigation of this subject will result in substantial advantage to all concerned, and to this end this board desires to receive information and suggestions and statements from all who are interested. As your position has probably led you to give more than usual attention to the subject, there may be matters to which, in your opinion, the attention of the board should be called, in which event it is requested that you will communicate them to this board in writing."

We commend this matter to our readers as worthy their thought and attention. There are hardships connected with the management of the railways of this State which those who suffer them can best describe and protest against. It is generally believed that these corporations are demanding more than their share of the productive profits of our producers, and considering the bounty which the roads have received they should not draw so heavily upon their patrons for the service they render. Now an opportunity is given by the Legislature to those who have evidence which gives grounds to these beliefs to present it before the commission and have it figure in their reports. As we understand their circular announcement, they are ready for suggestions as well as affidavits, and will follow out any direction of inquiry which seems to need the pursuit. It will be well both for individuals and communities which deem themselves the objects of discrimination or unjust charge, to act together in advancing the investigation of the commission. The office of the commission is at Sacramento, where all communications may be addressed.

MELON SYRUP.—We learn from the Bakersfield *Courier* that Dr. J. Stockton, this year finding himself possessed of an enormous quantity of watermelons, determined to reduce them to syrup. It took eight gallons of melon juice to make one gallon of syrup. He has made this year 125 gallons of excellent syrup.

QUERIES AND REPLIES.

Grape Syrup.

EDITORS PRESS:—I sent you yesterday a sample of grape syrup, per Wells, Fargo & Co.'s express, for your trial and inspection. Your correspondent, J. M., by a misunderstanding stated that 100 gallons of juice would make 40 gallons of syrup; it takes 120 gallons of juice and 25 pounds of sugar to make 40 gallons of syrup, or about one ton of grapes, since there is considerable loss in clarifying the juice. Cook's evaporator gives entire satisfaction. Have made on one pan in three weeks nearly 1,000 gallons of syrup, without burning any of it.—JOHN C. WEINBERGER, St. Helena, Cal.

Mr. Weinberger's syrup is excellent. It is difficult to discern much difference between it and the improved sample received from Gillam & Bruce. We thought we detected a slightly higher and more fruity flavor and a mere shade lighter color, but the difference was very slight, if any.

We have studied these syrups carefully during the week, and we are more firmly convinced that the syrup in its fresh state is most pleasing to the taste and desirable as an article of food; but the difficulty we noted last week has become more apparent as the days have gone. There must be something done to arrest the "candying" of the syrup, or its production will be arrested at once. The first sample we received from Gillam & Bruce, now having been in our possession a little more than two weeks, has "candied" completely, so that the bottle may be inverted without the movement of the syrup. It is a thick, grainy paste. Under the microscope the grains resolve into the characteristic mass forms of glucose.

The need is now to introduce into the process of manufacture some agent or treatment which will overcome this tendency of the grape sugar to agglomerate and separate from the syrup. This, as we remarked last week, is the tendency of honey, which is chiefly glucose. It is also the tendency of all solutions of glucose when concentrated by the evaporation of water. Thus the evaporation of the water of the grape juice in the process of raisin drying enables the glucose to agglomerate, and we have a raisin skin full of sugar, a thing so much desired. The formation of these granules in honey is, we read in Langstroth, sometimes discovered before the honey leaves the hive, in cases where the bees have been subjected to a severe drouth and their usual supplies of water cut off.

We have been examining these samples of syrup and their tendency to candy as we had opportunity during the week, but have reached no conclusion of any value in the experiments which we have made. Up to this time the samples received last, both from Mr. Weinberger and Gillam & Bruce, are still in handsome fluid form. We shall be pleased to exhibit them to any one interested in the subject who will give us a call.

Grapes For Name.

EDITORS PRESS:—We forwarded to you to-day, per Wells, Fargo & Co.'s express, a small box of grapes. Will you please let us know the name and to what variety they belong?—PENTLAND BROTHERS, Knight's Ferry, Cal.

The grapes were beyond our knowledge, and our fruit dealers declared they had never handled any like them. We sent the sample to B. S. Fox, of San Jose, who, not being certain of the name, forwarded it to W. B. West, of Stockton. Mr. West replied as follows: "The grape is what I call Black Ferrar, a very late grape and a good keeper. I have sent them East by slow freight with success. Your specimen is not so black nor has so much bloom, but the grape is the same that I grow." Mr. Fox in sending us this note adds: "the sort is one largely grown in Australia." We thank Messrs. Fox and West for the pains they have taken to enable us to answer the query.

Measuring Hay and Straw.

EDITORS PRESS:—Please let me know through your paper how to measure a stack of hay, wild hay, stacked loosely and measured one month after stacking. Also how to measure a stack of straw.—A SUBSCRIBER, S. F., Cal.

Will some reader of the RURAL PRESS favor us with rules for the above?

EASTERN SHIPMENT OF RAISINS.—The *Call* says: Several car loads of California raisins were shipped to the Eastern States by rail last season, and this year the experiment is to be tried of shipping by sea. The *Two Brothers*, now loading for New York, will carry 500 boxes of Briggs' best. The rate of freight is only one-third of that by rail, and it is expected that the fruit will be improved by the sea voyage. As this State is likely to soon have a large surplus for export, it is important that the feasibility of shipments via Cape Horn be demonstrated. We are informed that Mr. Briggs lost no raisins by the October rains and that his production this season will reach 13,000 boxes.

FINE BERKSHIRES.—There passed through the city last week a lot of fine thoroughbred Berkshire hogs, imported from England by Charles A. L. Dunn, of Ventura county. There were three boars and three sows, and they were purchased from the Queen's farm. The late Prince Consort was a great admirer of fine swine, and the Queen has continued his breeding ventures. The stock which Mr. Dunn brings into the State is thus of the very best blood in existence, and we trust he will gain a success in breeding them here which will repay his investment and enterprise.

The Horse's Foot and Its Diseases.—No. 7.

The abuse in driving which gives rise to inflammation of the membrane which encloses the bones and the deposition of the bone about the joints, may result also in ulceration of the cartilages and bones entering into the composition of the joints. The parts most usually affected are the knee, the hock and the joints of the navicnlar bone, with the coronet or coffin-bone. The commencement of the disease is an inflammation of the membrane which lines the bony surfaces between which the motion of the joints occnrs. Prolonged lameness follows. Perfect rest at this time with proper treatment may remove the condition, but by neglect and continued use, the disease is readily carried to its advanced stages. The inflammation extends to the cartilages covering the joint-surfaces of the bones. The vitality of this tissue is so low that it readily breaks down under the inflammatory action, and is removed by the ul cerative process. From this condition perfect recovery is impossible. The best resnlt possible is the formation of a blind spavin, by the cementing of two opposite surfaces of bone by an intermediate bony deposit. Instead of this, the ulcerative procesa may extend to the bony tissue itself. In Fig. 25 may be seen this ulcerative disease as it invades the navicular bone.

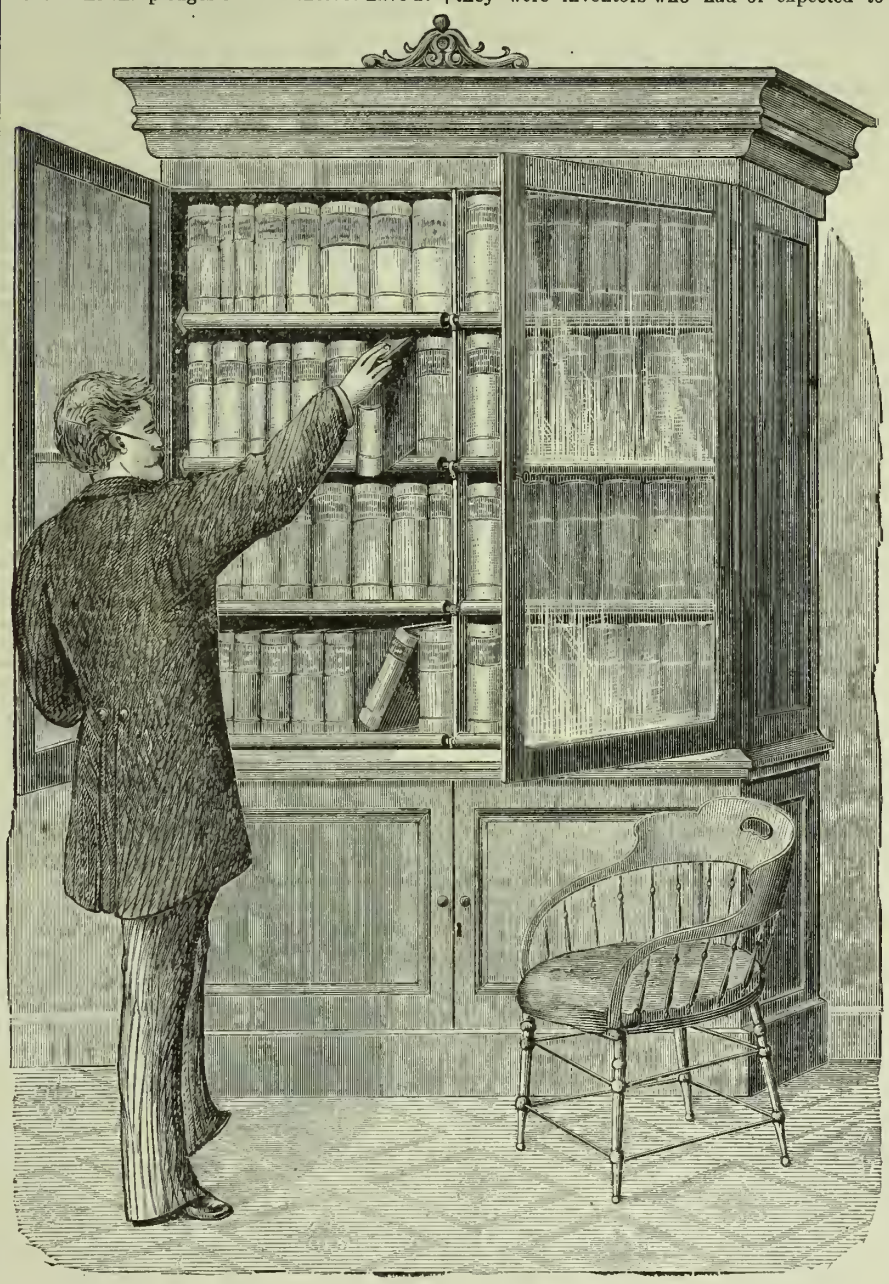
That disease of the navicular bone may and does exist is undoubted, as witness the two diseased bones in Fig. 25, but that it is one-tenth part as frequent as some claim admits of great doubt. Navicular disease, like "shoulder lameness," has been made to answer all obscure causes of lameness. Except as a constitutional disease, it can only occur, under most circumatances, in a wide-spread and flat foot. In ordinary forms of the coffin-bone it is raised so high above injury that one can hardly conceive it to happen from this cause alone. The only condition from which it can ordinarily arise is inflammation of the membrane which supplies the oil to the joint. Thia *may* be excited by a bruise, communicated through the sensitive aole and frog, and also the tendon of the perforana. It more frequently occura, however, as the reault of violent and long-continued movement, as in fast driving over long distancea; and even in this case there probably exista a conatitutional diaposition to disease. The diaease is one fruit of inflammation of a low grade, terminating in ulceration of the cartilage, and finally of the bone. It in no way differs from uloeration of the bonea in other jcints except in its termination. Being on the under surface of the bone on which moves the tendon, it cannot recover by becoming cemented to a fellow-bone; so that it is doubtful whether navicular disease, when it has proceeded to the extent of uloeration of the bone, ever recovers. Treatment in the earlier stages, by reat, by foot-baths, by tonic and alterative medicines, and by good, nutritious food, may arrest the diaease and restore health to the part.

There is another form of disease which is produced by the irritation of hard driving npon a hard road-bed, or by the constant atrain of moving heavy loads, and especially in heavy horsea. It ia the ossification of the cartilages of the feet. (Fig. 26.) During the transform ation from cartilage to bone, any unusual exercise may produce some degree of lameness. Fullness, heat, and a doughiness of the part may be detected by careful manipulation. Later, in place of the soft, elastic feeling of the healthy foot, we find the solidity of bone. As the change becomea complete, there ia but little direct lameness, but the part becomea stiff The animal is unfitted for the saddle and rapid driving, but may still be useful for draft. Before the bone ia fully formed, and eapecially during the earlier stage of inflammation, the trouble may sometimes be prevented. The measures to be adopted are similar to those previously mentioned—rest, ahundant warm water bathing in the earlier stages; stimulating friction, and the use of the iodide of lead ointment in the later stages.

A New Dredging Machine.—The Stockton *Independent* is informed that a new dredging machine ia being built at Roberts landing, 15 or 20 miles below Stockton, at the expense of Messrs. Roberts and Williams. Aa deacribed to ua this invention, now nearly completed, is designed to carry earth from a barge floating in the river to the land, where it is deposited on the levee. The material is dug from the center of the stream by an ordinary dredger and cast upon the barge, where it is received upon a false deck that is so arranged as to dump the earth when desired npon an endless chain or carrier below. This carrier extends to the land, where it ia moved and controlled hy one man. The length of the carrier ia about 100 feet, and the position of the levee is determined by the position ot the boat in the stream, the moving of the barge nearer to or further from the land placing the end of the dnmp where required. The carrier ia run by a steam engine on the barge. The value of such a contrivance, if it can he put into practical use, ia obvioua. With the dredgers built by Mr. Whitney, for example, the main drawback to their succ:ss has been that they cut the earth too near the banks, thereby endangering them, and they do not throw the material far enongh from the bank to make a strong and substantial levee, aa when built on the very edge it is constantly liable to cave off into the stream.

Roller Shelf Edge.

A well worn book is an evidence that it has been consulted; that it is not merely kept for show, and we always like to see the ordinary marks of use upon a useful book. The evidence of nse, however, should show more npon the leaves inside of the book than upon the back and edges, but the manner in which onr cabinet makers have heretofore been in the habit of constructing book shelves renders it almost impossible to preserve the backs and edges of books that are much handled, in a decent condition. The sharp edges of book shelves have detint. A person who has not tried to take down or replace a book over this attachment can realize the satisfaction, and in fact the real pleasnre, which it gives. One of the book cases in our Patent Agency department, on which we keep the monthly volumes of patents, is supplied with these rollers, and we actually state a fact when we assert that we have seen persons stand as long as ten minutes at a time and pull out and push back the volnmes over the rollers, asserting that it was a real pleasure to take down a book; in fact, that it would be a pleasant task to pull down and put up books all day, over them. The assertion was extravagant, but we excused it because, as like as not, they were inventors who had or expected to



BOONE'S IMPROVED ROLLER SHELF EDGE.

troyed more books than all the handling to which the books themselves are aubjected for legitimate nses; and this is especially the case with reference to large and heavy books, which are usnally the most valuable and most costly. When the shelf is higher than the level of an ontstretched arm, it is almost impossible to take down a large volume, or replace it upon the shelf, without dragging it over the edge of the shelf, and in this way the edges of the cover are mutilated and injured. We can therefore excuse the gentleman if the covers of his books are ragged, worn and draggled, if his book ahelves are of the ordinary old style pattern.

We present herewith, however, the illustration of an improvement in book shelves which is intended to obviate the difficulty. It consiats, aa the reader will perceive, of a roller, mounted in front of the edge of each shelf, ao that tho edge of the books will bear upon and roll over the roller when they are heing taken down or replaced. The rollers are covered with a thin film of India rubber or other elastic material, which gives aoftness and friction, so that they will be sure to rotate, and the book will roll easily off or upon the shelf. The rollers also add to the beauty and finiah of the shelf, and they can be colored in any desired zinc, and even then the edges of the books look as though an army of rats had heen let loose amongat them. This roller will not only preserve the books but will cause them to move easily into and out of their compartments on the shelvea with but little muscular exertion. This invention has been recently patented, through the Mining and Scientific Press Patent Agency, by Jno. L. Boone, one of the firm of Dewey & Co. Gilbert & Moore, of 219 Bush street in thia city, the well known office and school furniture mauufacturers, are the agents to whom all communications can be, addressed.

Fig. XXV.

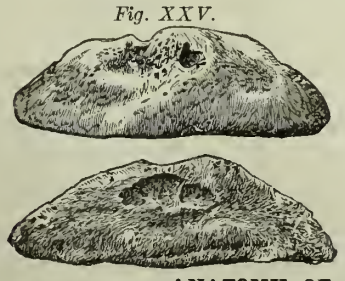


Fig. XXVI.



ANATOMY OF THE HORSE'S FOOT—NO. 7.

The joint congreaional committee to investigate the Chinese qneation is still in session in this city.

Chinese Labor.

We have taken no voice in the discussion of the Chinese labor question which has been widely carried on during the recent campaign, first because we conceived that it was being made more of a political topic than otherwise by both parties; and second, because we think it is a question which will regnlate itself rather by the laws of political economy than by legislatures and congresses. While we have no desire to see a permanent Chinese population in this State, bnt enjoy the prospect of our whole area being inhabited by enlightened and enterprising citizens of the republic, we cannot shut onr eyes to the fact that the Chinese have been of great valne in developing the resources of our State, and that, were it not for their labor to-day, many of our orchardists, vineyardists, dairymen and farmers generally wonld find it impossible to carry on their productive enterprises. Our farmers are well disposed toward white laborers; they prefer them on patriotic grounds; they nndertake risks and make sacrifices in order to give them a chance for industry and advancement, but the character of the work to be done, the disposition of the laborer and the narrow margin between selling price and cost of production, gives, in many cases, the single alternative of employing the Chinese or risking their snccess even to the limits of actual loss on their operations.

It is not necessary to enter into any analysis of the evil which is abundant in the Chinamen. Our people know them pretty well and they do not defend their character except in the one particular of will and faithfulness in work, and they do not advocate the race except on the ground that conditions prevail which seem to make them a necessity. If any wisdom can demonstrate to our farmers how they can do without the Chinamen, we have no doubt they would make the change qnickly and joyfully, but their own experience forces them to the employment of the Aaiatic, and they see no escape from it, as conditions now are. Of course we speak in general terma and in referenoe to the lower grades of work.

The Chinese commission, appointed by Congreaa last winter, has been in sesaion in thia city for several weeka, and it has listened to a great number of witnesses, concerning all qualities of the Chinaman. He has been shown in all his blackneas in his city haunts, and we have no disposition to endeavor to lift a single line of ita heathen barbarity. On the other hand, there has heen testimony of his value in productive enterprises. In order that onr readers may be informed of the evidence which ia given on this branch of the subject, in which they are mostly interested, we extract from the pnblished testimony the following paragraphs:

Mr. Peckham, President of the San Jose woolen milla, testified as follows: We employ Chinese. They are generally employed as fruit gatherers and hop pickers. We employ, when running full, about 65 Chinese and ahont 30 white men. About three-fonrths of the whole amount paid for wagea goea to white men, and one-fourth to the Chinese. A year and a half ago I compared pay rolls in the East with my own, and the average waa abont the same; now the wagea in the East are about 20 per cent. leas on the average than ours. I don't know that we shall be able to compete with them in another year. If we had to rely on white labor we would be compelled to close and abandon buainess. There is about $3,000,000 of capital invested in mills on this coaat, and all the mills wonld have to close if Chinese labor was excluded. Whenever we can get a white person, man, boy or woman who can do the work of a Chinaman we are always willing to pay $5 more a month. We do it from motivea of humanity. There is not a surplus of labor in onr section of the conntry during the busy aeason of the year. My opinion is, that if we had not had the cheap labor that the Chinese have afforded us, that the industries of the State would not have been developed as they have now for 20 yeara.

W. W. Brier, of Centerville, Alameda connty, testified: I employ seven Chinamen and one white man; have fifty acres of frnit under cultivation—applea and berries. Could not raise the fruit with profit without Chinese labor; think Chinese immigration has been of advantage to the State. I speak from my convictions; don't know of a farmer in Alameda county who disagreea with me in my views; Democrats and Republicaus have the same opinion; the anti-Chinese agitation is not popular in Alameda county.

There was much more teatimony of this kind, and some more emphatic from men who are carrying on agricnltural enterprises in the San Joaquin valley. As far as we have had opportnnity for observation and conversation among our farmers, the general verdict is that they have no liking for the Chinese, bnt they do not see how they can get along without them. They could not spare them any hetter than they could their farm machinery.

We know there are higher considerations on which this subject is discuased, and on all questions of auperior humanity and the interesta of citizenship we are ready to nphold the dignity and permanent value of the white laborer; but in view of the present condition and necessity of things the Chinamen now on onr farms seem indispensable. If wise statesmanship can teach otherwise we are more than ready to learn the lesson.

(Continued from Page 331.)

closed for 24 or 48 hours, during which time the dry stems will have absorbed sufficient of the moisture given off by the raisins to render them flexible. And here Mr. Blowers finds another advantage in his drying-rooms, which being as near air tight as possible when the valves over the air passages are closed, are admirably adapted for this purpose. The platforms brought in from the vineyard loaded with raisins are placed in the rooms, where they remain until ready for the packers. If the drying has been done in the rooms, all that is required when the raisins are to be subjected to the sweating process is to close the air passage.

The Raisin Boxes.

Three-quarters of all the raisins produced in the State this season will be packed in twenty-pound boxes, and will probably settle the matter for all time—that a box of California raisins contains 20 pounds. The package is of convenient size, and possesses the further advantage that the halves and quarters contain ten and five pounds respectively, thus doing away with the fractions of a pound as in the half and quarter Spanish boxes. Those used by Mr. Blowers are made of sugar-pine, planed on both sides, and are nine inches wide and eighteen inches long inside, with a depth of five and a half for the whole, two and three-quarters for the halves, and one and one-half inches for the quarters. A less depth answers if the fruit is not to be packed in layers. The sides are made of half-inch, the ends of five-eighths, and the top and bottom of quarter-inch lumber. The ends and sides are chamfered, to give the whole a neat and finished appearance.

Packing the Raisins.

This is an important part of the work, and upon which depends to a great extent the appearance of the fruit when ready for market. Mr. Blowers this year packs all of his raisins in five-pound layers, the whole boxes containing four, the halves two and the quarters one layer, all separated from each other by white paper.

The packing-room, which is convenient to the drying-rooms, is provided with suitable tables, upon which are placed the platforms of raisins, which are now, for the first time since plucked from the vines, touched by the hands of the workmen. The operator is provided with a packing frame, which consists of a band of stiff sheet iron shaped to fit the inside of the raisin box, and two inches high, with a movable bottom. Into this is first placed a layer of the more perfect bunches, and the remainder is then filled up, until, by the scales, it contains five pounds of fruit—care being taken to clip off all superfluous stems and imperfect berries. When the frame is full, a paper of suitable size, with the corners cut out so as to permit of folding down over the fruit, is placed upon the top, and over all is laid a wooden or metal slide. The whole is now turned upside down over the raisin box, the slide is withdrawn, and the frame and contents drop down into the box. The frame is lifted out, the raisins being kept in place by pressure upon the movable bottom, which is afterwards taken off. The four paper flaps are then turned down over the fruit, and the box is ready to receive the next layer. This operation is repeated until the box is filled. The paper for the top has ornamental flaps, containing the name of the grower, his residence, etc. Mr. Blowers places over the upper layer, before turning down the flaps, a pretty chromo-lithographic view of his vineyard, which adds considerably to the attractiveness of the package when opened. When the box is full the fruit should project a little above the sides, so that the cover when nailed on will press upon it just sufficient to prevent any movement in case the packages are roughly handled. The producer's name and residence is stenciled upon the box, also that of the commission merchant if required, and the raisins are now ready for market.

Yield of the Different Varieties.

Mr. West places the yield of the Muscat of Alexandria with him at three or four tons per acre, but adds that in climates better suited to them they will give almost double that amount. The yield of the Malaga raisin, Fiher Zagos and White Malaga, he places at seven to ten tons per acre. He adds that the seedless kinds will not yield quite so well, and that six tons would be a fair estimate. In one part of Mr. Blowers' vineyard the writer counted 20 platforms containing 20 pounds of grapes each that had been picked from 16 vines, giving an average of 25 pounds to the vine, and that too after the first crop, which turned out about the same quantity, had previously been gathered. Many vines in the vineyard produced 75 pounds of grapes this season. The average yield, however, for the whole 22 acres was five and one-half tons to the acre, which the proprietor thinks would have been increased to about six and one-half tons per acre if he had not been prevented, by the breaking of a dam, from obtaining a supply of water when he needed it most. This is not an unusual yield, but is large enough for the beginner to base his estimates upon. Extravagant statements have been published, placing the yield of an acre of raisin grapes at 15 and even 20 tons per acre, but although these figures present an attractive appearance on paper, the novice in the raisin business who bases his calculation of profit upon them will be grievously disappointed.

Estimates of Expenses and Profits.

Most cultivators will agree that raising grapes at one and a half cents a pound, net, is a profitable business. This will, therefore, be taken as a basis for the estimate of cost. The universal experience is that nearly all grapes suitable for raisins, lose in drying about two-thirds of their weight. Mr. Blowers finds that his drying platforms, which hold from 20 to 22 pounds of grapes each, turn out about seven pounds of raisins. To cure 4,000 boxes, or 40 tons of raisins, has this season required the services of 15 Chinamen most of the time for a period of ten weeks. Their wages are $1 per day, making the labor of curing cost $900 for 80,000 pounds of raisins, being a little over one cent per pound. For the second crop, however, which is partly cured by artificial heat, the expense is somewhat increased. We therefore place the cost of curing at one and one-fourth cents per pound. The boxes, paper and printing cost 20 cents, or one cent per pound. Six men pack about 75 boxes per day, the cost being, therefore, eight cents per box, or for a liberal estimate, half a cent per pound. The freight to San Francisco is five cents per box, or one-fourth of a cent per pound. Summarizing the above results we have:

	Per pound.	P	x
Three pounds of grapes at 1⅓c	4		90
Curing	1¼		25
Boxes, paper and printing	1		20
Packing	0½		10
Freight to San Francisco	0¼		05
Totst cost	7½		$1.50

These fignres can be relied upon, as they are the results of actual operations at Woodland this season, and cover the cost of producing a first-class article of layer raisins which compares favorably with the imported fruit, and sells in this market at $2.75 per box. This price will not be obtainable here after the production exceeds the requirements of the Pacific coast. A market will therefore have to be sought for in the Eastern States. Malaga raisins are selling at the present time in New York at $2.10@ $2.15 per box of 25 pounds, which are lower rates than have prevailed at this season for several years. By the carload the railroad company last season carried raisins across the continent for $1.75 per 100 pounds. It is, therefore, evident that the California producer can successfully compete in the New York market with the imported fruit. In the estimates here given it has been the intention to keep on the safe side, and there is little doubt that with experience and care the cost may be somewhat reduced from these figures. Indeed, one grower of considerable experience asserts that he can make money in producing raisins at six cents per pound.

Conclusion.

The various steps in the process of producing raisins, from the planting of the vineyard to the shipping of the fruit to market, have now been noted, and it is hoped that sufficient data have been given to show that the business can confidently be entered upon by men of intelligence and industry, with safety and profit. One of the best assorances for the future of the industry is that several of those of most experience are enlarging their vineyards, with a view to increased production. Mr. Blowers will nearly double the size of his vineyard this winter, which, when in full bearing, will increase his product to 10,000 boxes per annum. G. G. Briggs has already planted 400 acres of raisin grapes, and after five years expects to turn out 100,000 boxes per annum; while the Natoma water company, near Folsom, intend to increase their vineyard of raisin grapes from its present size of 110 acres to 1,000 acres. When these and other vast projects are carried out, California will supply the whole union with raisins.

Seedless Raisin Grapes.

EDITORS PRESS:—I wish to correct what I believe to be an erroneous impression about the Seedless raisin grapes. I have had orders for the Sultana or White Corinth, and some writers consider them synonymous. Now I cultivate two distinct varieties for Corinth and Sultana, as the following description will show:

The Sultana in our warm climate is not a vigorous vine, being rather like the Chasselas varieties. The leaves are light green, turning yellow quite early. The bunches quite long, often 13 inches, with quite large shoulders. It is a very good bearer; its sets well, the bunches being well filled.

The White Corinth is a very strong growing vine, with rich, dark leaves, almost as dark as the Fiher Zagos, which stand quite heavy frosts. It is a shy bearer, the bunches small, compact, never more than four inches in length; no shoulders. The berries are quite small, not half the size of the Sultana.

The Black Corinth is a very thrifty vine, bearing abundantly; bunches long, sometimes 15 inches, not often shouldered. I have had the same difficulty with it that your correspondent from Riverside complains of. It produces large berries containing one seed; this is not always the case; some bunches are true to their type. I attribute it to their being impregnated by vines around them; it may, however, be the rich warm soil. That my vines are true I have no doubt, as I have procured them from two different sources, and now have them direct from Europe.

The Sultana and White Corinth are perfectly seedless, although growing among other varieties. W. B. WEST.

Stockton, Cal., Nov. 10th.

What We Find in Coal.

Professor Wm. F. Roberts says: The coal itself, even where it is most abundant, constitutes but an insignificant portion of the whole thickness of the carboniferous strata of the ancient coal formation. Most of the coal seams rest upon an under clay, containing stigmaria, the fossil rootlets of the plant called sigillaria. Professor Goppert examined the coal fields of Germany and stated that he detected in beds of pure coal the remains of plants of every family, then known to occur, fossil in the coal. Many seams, he remarks, are rich in sigillaria, lepidodendra, and stigmaria, the latter in such abundance as to appear to form the bulk of the coal. In some places almost all the plants were calamites, in others ferns. In a cut for a railway in Lancashire, England, in the distance of 100 feet, six fossil trees were discovered, standing in vertical position to the dip of the strata, which was 15 degrees south. The roots were imbedded in an argillaceous shale underlying a seam of coal about eight inches thick. Beneath the coal seam and around the base of the trees more than a bushel of fossil cones, supposed to be the fruit of the lepidodendron, were gathered. In the carboniferous strata of Coalbrook Dale, and in other coal fields, these fossil cones are met with, some of which are five inches long. One of the trees found in the cut measured 15¼ feet at the base and seven and one-half feet at 11 feet, its discovered hight. In the Newcastle, Bristol, and other coal fields, these vertical stems are called by the miners coal pipes. These cylindrical casts of fossil trees now forming solid sandstone, after the coal is mined from underneath sometimes slide suddenly down and cause fatal accidents. The cliffs, known as South Joggins, on the coast of Nova Scotia, afford admirable sections of the coal bearing strata, containing fossils of the forests of the carboniferous period. Large trunks of trees are seen standing at right angles to the dip of the sandstone strata, showing that they were, before this strata was deposited, standing in an upright position; now they incline at an angle of 150 degrees from the vertical line. The vertical hight of these cliffs is from 150 to 200 feet. At low tide a fine horizontal section of the strata is exposed to view on the beach. Lyell and Dawson, in 1852, made a detailed examination of one portion of the strata, 1,400 feet thick, where the coal seams are most frequent, and found evidence of root bearing soils, at 68 different levels, clearly showing 68 fossil forests, ranged one above the other, in this coal field in the above mentioned thickness of strata.

SHORTEST LINE ACROSS THE ISTHMUS.—Rear-Admiral Cochrane has written to the London *Standard* suggesting that it would be to the interest of England if steps were taken for surveying a route for a canal which is traced by proceeding up the Bayano river, which debouches into the Pacific about 20 miles to the eastward of Panama, to a farm or village called Jesus Maria; from thence in a more or less direct line, to proceed to the harbor of San Blas, on the Atlantic. The map, "Selfridge's," and Admiralty chart, demonstrates at a glance the advantages of adopting this route on account of its shortness, if it is found on survey to be otherwise suitable. The course he recommends for survey is the shortest across the Isthmus of Panama, viz., about 29 miles. He states that he ascended the Bayano river in May last, with two steam pinnaces, to Jesus Maria, in three and one-half hours of steaming, and carried a depth, excepting over some sand bars, of several fathoms. There he caused to be obtained observations for latitude and longitude, which showed that he had attained within 19 miles, in a direct line, of the port of San Blas, on the Atlantic, and the tidal rise of the Pacific extended several miles beyond the point attained by him.

AMBER.—Rehoux states that at the eocene epoch the bed of the Baltic sea was occupied by an immense forest, which spread over nearly the whole northern continent. Dredging carried on at a depth of 6.4 feet below the sea bottom has brought to light thereby two species of conifers, a poplar, a chestnut, and various other trees. From the conifers, the author thinks, ran the resin which, through being buried in the earth, has become changed into amber. The largest quantity of the gum appears to have been derived from the *Pinus succinus*. More than 200 specimens of objects have been found imbedded in the gum, including insects, reptiles, plants, leaves, grains, shells, fruit, etc. The density of natural amber varies from 1.09 to 1.11. Its analysis, according to Schrotter, is: Carbon, 78.82; hydrogen, 10.23; oxygen, 10.90.

A SUPPLEMENTARY EXHIBITION.—A dispatch from Washington says: An organization is being perfected by which facilities will be afforded exhibitors, both foreign and American, to continue the exhibition of their goods in the main exhibition building after the close of the Centennial exhibition, that building having been purchased from the Centenuial Board of Finance for the purpose of creating a permanent exhibition. The exhibits will comprise the following classes: Mining, manufactures, education and science, art, machinery, agriculture and horticulture. The space will not be charged for; but the unpacking and rearrangement of exhibits, and the transportation, etc., of new exhibits must be done at the expense of the exhibitors.

The Sun's Temperature.

The actual heat of the sun's surface is one of the unsettled questions of science, and estimates have varied between 10,000,000 deg. and 2,700 deg. Fah. Professor S. P. Langley read a paper at the late meeting of the National academy of sciences, detailing how he compared the sunlight with that from the molten steel poured out of the Bessemer converter, and thus approximately estimated the solar temperature. A heliostat arrangement was employed to transmit a sunbeam into the foundry of the Edgar Thomson steel works, and a Ritchie photometer was used to measure the respective intensities of the lights. The first conclusion reached was that the sun's light, which turns the light from the molten steel into a black spot, must be at least 50 times the greater. Then the spectroscope was employed and the two rays compared. The steel rays were again blotted out. Hence the sun rays must have been at least 64 times brighter. Next, Professor Langley made comparisons of the sun's rays with those from the flames above the converter when the latter were at their brightest. This was a less difficult proceeding and furnished more specific results. The photometric comparison could be made directly. It is admitted, however, that the flame light may not be quite as bright as that of the molten steel. The arrangement was somewhat like that of a camera obscura. It gave the image of the sun so accurately that sun spots could be easily examined; it also gave an exact representation of the furnace flame. Each was alternately superposed on the other. The conclusion is that the sunlight is at least 2,168 times brighter than the furnace flame. As the heat is presumably of the same relative order, the result is adverse to the law of Dulong and Petit. The actual heat of the sun is probably among the higher values that have been suggested.

Rupture Cured.

We would advise all those of our readers suffering of Rupture to carefully peruse the following:

SAN FRANCISCO, September 25th, 1876.

I would state that I have been ruptured for nearly three years, and have worn various kinds of Iron and Steel Trusses, without any benefit. I saw an advertisement of the MAGNETIC ELASTIC TRUSS CO.; called on them on the 28th day of July, six weeks ago, and now, on the 25th day of September, 1876, after wearing the MAGNETIC ELASTIC TRUSS only six weeks, I am astonished and delighted to find myself perfectly well. If any person should have told me two months ago that I could be cured, I would have laughed at them.

D. ALEXANDER,

809 Jackson street, near Stockton, S. F.

ONE MORE.

SAN FRANCISCO, October 20th, 1876.

After being ruptured more than TEN YEARS, and having suffered great pain and inconvenience thereby, I am now happy to say that I am CURED, and do not wear any Truss whatever. The MAGNETIC ELASTIC TRUSS, which I purchased on the 19th day of last August, has done the work, and I would earnestly advise all those suffering from Rupture to give it a trial.

CONRAD D. HILTON,

Carrier for the *S. F. Chronicle.*

MAGNETIC ELASTIC TRUSS COMPANY,

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A Boy for the Country.

An intelligent lad, 13 years old, wants a permanent home in the country. Address J. B. PORTER, dentist, Oakland, Cal., or at this office.

SULPHUR BATHS three cents. The beneficial results of sulphur baths are too well known to require comment. The effects of GLENN'S SULPHUR SOAP in the bath are truly electrical, completely deodorizing offensive accumulations, and thoroughly purifying the entire surface of the body. Sold by druggists, 25 cents.

Awarded the Highest Medal at Vienna.

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Manufacturers, Importers & Dealers in

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And kindred goods—Celebrities, Actresses, etc.

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We are Headquarters for everything in the way of

STEREOPTICONS and MAGIC LANTERNS,

Being manufacturers of the Micro-Scientific Lantern Stereo-Panopticon, University Stereopticon, Advertiser's Stereopticon, Artoptikon, School Lantern, Family Lantern, People's Lantern, each style being the best of its class in the market. Beautiful Photographic Transparencies of Statuary and Engravings for the window.

Catalogues of Lanterns and Slides, with directions for using, sent on application. Any enterprising man can make money with a Magic Lantern. A full stock of views of the Exposition Buildings and their contents.

Cut out this advertisement for reference.

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PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

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PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

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P. STANTON, Sacramento, Cal., breeder of choice Jersey Cattle. Bulls, Cows and Calves for sale.

SHEEP AND GOATS.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

T. A. WILSON, Grayson, Stanislaus county, Cal. Breeder and Importer of Spanish Merino Sheep.

LANDRUM & RODGERS, Watsonville, Cal., breeders of Pure Breed Angora Goats.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

M. FALLON, Cor. Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Fowls for Hatching from Pure Bred Fowls.

J. M. KERLINGER, Ellis, San Joaquin Co., Brown Leghorns a specialty. A few Pure Brahmas and White Leghorns for sale cheap, to close.

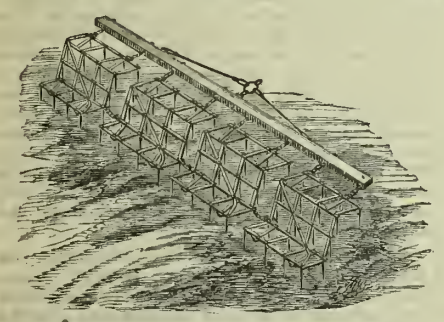
MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas and B. B. Red Game Bantams. Also Eggs.

SWINE.

ALFRED PARKER, Bellota, San Joaquin Co., Cal., Breeder of Improved Berkshire Swine.

Agricultural Articles.

IRON SECTIONAL HARROW.



This Harrow was Awarded the First Premium at the California State Fair in 1875.

The undersigned, having purchased the patent right of this Harrow for California, are now manufacturing them in Roseville, Placer County, and would call the attention of Farmers to the superior merits of this Harrow over all others now in use.

As its name indicates, it is made in sections of about three feet in width, each section having four bars, in which the teeth are inserted, and by connecting the sections with links, the Harrow is formed.

Should a Farmer require a Harrow upon his farm to do all kinds of work, he should purchase six sections, which would be suitable for four horses, and would cut 18 feet in width; by disconnecting two sections he will have a two or three-horse Harrow, cutting about 13 feet. One section alone is complete in itself, and suitable for garden work, with one horse. The Harrows are made of the best quality of iron, and with teeth warranted to be steel.

We give a few of the many reasons why we claim superiority for these Harrows over all others in use on this Coast:

First—By the lightness of draft, taking into consideration the amount of work it does.

Second—By working uneven or rolling ground just as well and as evenly as if it was entirely level.

Third—They are made of Iron and Steel, and therefore are not affected at all by sun or rain, or by heat and cold; they are always tight, and ready for use; they are also durable. A farmer purchasing one has a Harrow that will last a life time.

Fourth—The teeth being fastened with a nut and screw into the cross bars, should one break, another can be inserted in a moment. We are making three sizes, all being the same in width, but different in depth and weight only.

Prices, from $12.50 *to* $15.00 *per Section.*

All orders sent to

BREWSTER & CO.,
Roseville, Placer Co.,

Will be promptly attended to, and satisfaction guaranteed in all cases.

CAUTION.

It has come to our notice that certain parties are now making this Harrow in this State, and that several of them have been sent here from the East. Now this is to *caution* all persons against making, selling or buying them, so made and offered for sale, as we shall enforce our rights in relation to the matter, and would call the attention of all persons infringing upon our patent, to the *law* in regard to it.

BREWSTER & CO.,
Roseville, July 15th, 1876,

GRANGERS' BUSINESS ASSOCIATION,

Incorporated Feb. 10th, 1875. Capital Stock, $1,000,000.

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Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

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Laufkotter Bros. & Churchman's Horse-Power

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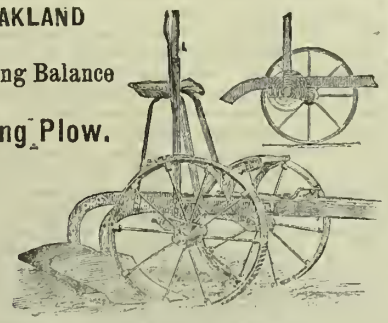
Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

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OAKLAND Spring Balance Gang Plow.



Patented and manufactured by H. N. Dalton, at the Pacheco Agricultural Implement Works, Pacheco, Cal. Established in 1858. Send for Circular and Pricelist.

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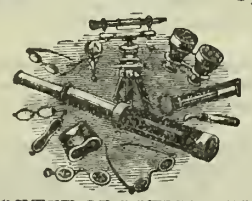
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One Farm, containing 280 acres of choice valley hill land, good house, barn, granary, etc., and well fenced. Price, $7,000.

One farm adjoining of 100 acres; good house, barn and outbuildings, young orchard—well watered; Cache creek, a never failing clear mountain stream, running through both farms. Price, $3,000.

Also, **Town Lots in Capay**, soon to be the center of trade and railroad depot for the western and northwestern portion of the county, and also for the quicksilver mines of Lake and Napa counties. Price, $50 to $150 per lot.

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These lands are in the great fruit belt of Los Angeles County,—only six miles from the city are peculiarly adapted to semi-tropical fruits, and adjoin the famous Lake Vineyard of Hon. B. D. Wilson. The Southern Pacific railroad runs through the land; convenient to schoolhouse and church; water in abundance, and the water-right is sold with the land. Title perfect. A Map of the tract may be seen at the office of Mayor Beaudry, on Spring street, opposite City Council rooms. References may be made to HON. B. D. WILSON or J. DE BARTH SHORB, at Lake Vineyard, who will take pleasure in showing the lands. Also, to MAYOR BEAUDRY or D. FREEMAN, Los Angeles city.

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(GRANGERS' BUILDING,)
SAN FRANCISCO, CAL

Capital..... $200,000 00
Assets, October 15, 1876..... 268,716 52

MUTUAL PLAN.

	AMOUNT.	PREMIUMS.
Risks written to Oct. 1, '76...	$5,181,591.00	$114,445.57
Less Amount Canceled.....	300,644.00	6,297.50
Amount in force, Oct. 1, '76..	$4,880,947.00	$108,148.07
Losses paid.....		$7,251.00

CASH PLAN.

	AMOUNT.	PREMIUMS.
Risks written to Oct. 1, '76...	$2,585,914.19	$51,606.96
Less Canceled and Expired...	976,908.00	$19,538.16
Amount in force, Oct. 1, '76...	$1,609,006.19	$32,068.80
Losses paid.....		$10,153.71

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$1.50 & $2 per day. Free Coach to the House.

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The Salt Marshes and Crops.

A few years ago an English company bought 23,000 acres of salt marsh, situated partly in Alameda and partly in Santa Clara counties. We have heard little of late about the operations of this company, except that they were steadily prosecuting the business of reclamation. The lands are favorably sitnated with respect to markets, heing accessible from this city both by water and by railroad. About 2,300 acres of this land was partly reclaimed by dyking in the fall of 1874. But the land was not flooded with fresh water. It was simply left to dry out. Very soon the samphire grass began to die, and timothy and other grasses made their appearance. In 1875 a part of the land was seeded to harley, the turf having heen cut and turned over to the depth of four inches only. A very good crop of harley was produced this year, together with heets, corn, onions and grass.

Another tract of about 200 acres, near Dumbarton point, will he seeded with alfalfa. In fact, the reclaimed land of this company enables the narrow-guage railroad company to reach the water of the bay at Dumbarton on hard ground. There are about 900 acres reclaimed at this poiut—that is, the dykes have been huilt and the salt water shut out. We judge the change to he very rapid after the salt water is excluded. The land hleaches in summer; and in winter there is enough fresh water falling to take a considerable part of the saltness ont. Of course the process would he hastened if a considerable part of the land were flooded during the winter with fresh water. It has been ascertained also that snywhere on these 23,000 acres of salt marsh artesian wells can be put down at a moderate cost, which will overflow and furnish an abundance of fresh water. This water can be used for reclamation and for irrigation when the land is cultivated hereafter. This English company have demonstrated that the salt marshes can he made productive farms of the best class. They have shown that even with partial reclamation good crops can be produced. These 23,000 acres, lying almost in sight from the city, will be turned into vegetable gardens, orchards, grain and dairy farms. The soil is inexhanstible. The experiment is therefore one of great value to this State. It is a larger enterprise in the way of salt land reclamatiou than has ever been attempted hefore in this State. If these 23,000 acres can be converted into productive farms, then it will follow that all the salt marsh land around the bay will he reclaimed at no distant day. There is this difference betweeu salt marsh and tule land: The former is out of the way of floods. There are nothing hut tide water creeks and sloughs to cut off. The fresh water which comes down from the hills will do a large part of the reclamation. If this English company turn these 23,000 acres of marsh land into fruitful farms, no one will after that question the feasibility of such experiments. Probably the salt marsh on the other side of the bay iu San Mateo county will next he subjected to process of reclamatiou. A series of experiments are going on iu Napa county ou a smaller scale, hut which we understand are successful. Hundreds of acres have heen reclaimed and converted into the best pasture for dairy purposes. The alfalfa experiment has not always heen successful on such lands, hecanse of surface water, which in one way and another would get on the land at the wrong time. But other grass had made a good staud, and in time alfalfa will also do well. There are a million acres more or less around the bays of San Francisco, San Pablo, Suisun and Humholdt which can he converted into productive farms. All these will he close to tide water; and in many places there are creeks which will float market boats right np to the farms.

We presume that this English company bought the salt marsh in Alameda and Santa Clara counties for the purpose of reclaimiug and selling at a profit. It now looks as if this experiment would be a complete success. Worthless land will be brought np to the highest grade, and when that is done there will be no difficulty of disposing of such lands at a large advance on the original cost. Where these lands will afford artesian wells the process of reclamation can be hastened, and a succession of crops assured all the year round.—*San Francisco Bulletin.*

A New Windmill.

The importance of the windmill as a farm tool warrants attentiou being paid to its mechanism, aud new devices are interesting. We find in the Salinas *Index* a description of a new windmill recently invented by Mr. J. C. Holloway, of Salinas. It consists of an upright shaft, upon each end of which is attached a circular frame. Betweeu the two frames around their circumference are fitted eight wooden fans that play on top and bottom pivots at their onter edge. These fans move from the outer circumfereuce of the circular frames to pins which leave them at right angles with the shaft. In this latter position the fans receive the full force of the wind and cause the wheel, or cylinder, to revolve. After the wind has expended its force ou the fans the centrifugal motion of the oylinder throws their inner edges to the outside of the oircle, where they are stopped by another set of humpers or pins. When they come around to the wind sgain the fans immediately assume their position at right angles with the shaft uutil thrown out sgain by the centrifugal force. The cylinder, or mill proper, is intended to be placed on the top of the water tank. By an ingenious contrivance it is a self-regulator and will stop pumping when the tank is full. The inventor claims that his mill will run with much less wind, and that the cost of construction will be at least 50 per cent. less than that of other mills to raise an equal amount of water. Mr. Holloway has associated Mr. W. J. Smith with him in the business and will immediately commence the manufactnre of the mills on an extensive scale. They have filed a caveat and applied for a patent.

Irrigation Questions.

Indeed the artificial application of water to our farming lands is a vexed matter and attended with diverse results. The Visalia *Delta* notes the uprising of a new question in Tulare county. It says: "The question of seepage in conuection with the distrihntion of waters for irrigating purposes is already creating somo discussion in this county, and seems destined to fignre largely in the attention of newspapers, legislature aud courts. It is a new issue with us, where the lands are of such a character in places as to get all the irrigation they need trom a canal which passes near them. In selling water for a few acres, if the price were regulated hy law at so much per acre, the wateriug of a strip one rod wide through the center of a ranch of 160 acres, might be all the farmer would need to contract for. Again the question of assessing benefits and damages must arise, so that in legislating on a general system of irrigating, this subject must be forced into prominence.

"A ranoher in the immediate vicinity of Grangeville contracted for water to irrigate 10 acres. He helieved, and the result proved, that for one seasou at least, the irrigatiou of his grain fields would be a positive damage. Through an unexpected and extended seepage, the water turned on the 10 acres percolated the grain field adjoining with unexpected results to hoth the purchaser and the seller of water. The grain grew vigorously, kept a dark green hne, and promised a prodigious yield. But the harvesting told the story. From the point of irrigation where the growth was rankest, the grain receded in hight and appearance to that of very moderate size. The farmer still held to his opinion against that of many of his neighbors, that the irrigation would result in positive loss. In harvesting, he measured off his acres in three or four sections of a few acres each, and cut and threshed it separately. The result fully sustained his judgment. The tall grain was largely straw, light in head and herry, and the yield grew better till the unirrigated land was reached, which proved the best of all. The ditch owners thought he should pay for all the land irrigated, hut the land owner, of course, sees it the other way. The experiments in this line are likely to prove very interesting, and we hope those whose experience enables them to speak with authority will contribute to a discussion of the subject in our local newspapers."

General News Items.

Francis D. Moulton has withdrawn his suit against Henry Ward Beecher.

Russia's warlike preparations have created a feeling of alarm in Europe, and the prospects of peace are not so bright.

The Rsv. R. F. Parshall has sned the committee of the First Baptist church of Oakland for $100,000 damages for an alleged slander.

Cardinal Simeoni, recently papal nuncio at Madrid, has heen appointed to succeed the late Cardinal Antonelli as secretary of state to the Pope.

The general condition of the republic of Liberia is improving. Their products in coffee, sugar, etc., and their exports are steadily increasing.

Governor Irwin has designated Thursday, November 30th, as a day of public thanksgiving, that being also the day fixed upon hy the President.

Sambo Takaki, late Vice-Consul of Japan at San Francisco, has been appointed Consul at New York, where he takes the post after the exhibition closes.

Newfoundland advicea report several shipwrecks with loss of crews. A brig drifted into Crow harhor in Fortune bay, with four of the crew dead aud lashed to the rigging.

Three boys were drowned on Saturday last at Harbor View while bathing. One was the son of Mr. Kent, janitor at Faulkner, Bell & Co.'s, and the other two were sons of Joseph G. Brackett.

Judge Westbrook has decided to grant the motion of the defendant, in the case of Moulton vs. Beecher, to change the veuue to a northern county, and Delaware will be selected uuless good reasou for not doing so is given.

The stage from Downieville to Marysville was stopped by two masked men on Monday last, and the passengers robbed. Mr. M. Scammon, a banker from Downieville, was shot and fatally wounded by one of the robbers.

Alexander Durbin, Jr., the youug man who killed his father in the mountains eight or ten miles above Healdsburg on the 31st of October, after a full hearing was discharged, on the ground that the killiug was in necessary self-defense.

President Grant has signed a pardon for Wm. O. Avery, now confined in the penitentiary at Jefferson City, Missouri, for complicity in whisky frauds. The friends of Wm. McKee express absolute confidence that he will he pardoned within a day or two.

The minister of foreign affairs, in replyiug to a question at a meeting of the Spanish courts, said that the Spanish government had authorized the extradition of Tweed as a return for the courtesy displayed by the goverument of the United States in similar cases.

Officers of many of the banks in New York are complaining of the great difficulty in obtaining silver from the sub treasnry. A large coin-broker on Wall street stated that one-half per ceut. would he readily given for American silver, while he would charge one per cent. to purchasers. Of the sub-treasurer it was learned thst he had no orders from Washington to issue additional silver.

A dispatch from Calcutta to the *Times*, referring to the heavy cyclone in India, says: It is reported that 20,000 persons perished in the cyclone of Oct. 31st, and some estimates place the loss of lives as high as 40,000. In the town of Burrishol, capital of the Bakergunge district, 3,000 houses were leveled with the earth. Letters from survivors report that a great wave nine feet deep swept over the large island of Dakhin Shahhozpore. The whole of Eastern Bengal appeared to suffer severely from the cyclone. Calcutta narrowly escaped. Reports of the famine from Bombay are worse. A water famine is feared in some districts.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[From Official Reports for the Mining and Scientific Press, DEWEY & CO., Publishers and U. S. and Foreign Patent Agents.]

For Week Ending November 7th, 1876.

Copy Holders.—Harrison H. Hendrix, San Jose, Cal.

Gold Separators.—Thomas W. Irvin, Eureka, Cal.

Hydraulic Propulsion Vessels.—Columhus A. Leaman and John A. Heckart, Pentz Ranch, Cal.

Re-issues.

Ice Machines.—David Smith, S. F.

——*The patents are not ready for delivery hy the Patent Office until some 14 days after the date of issne.*

Note.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

Notices of Recent Patents.

Among the patents recently obtained through Dewey & Co.'s Scientific Press American and Foreign Patent Agency, the following are worthy of mention:

Process of Refrigeration.—R. H. Lucas, S. F. This invention relates to an improved method of refrigeration, or the production of a cold atmosphere in curing and packing houses, refrigerators and other places where it is desired to cure or preserve meats, etc. The object of the invention is to produce an atmosphere having a low temperature and being at the same time dry and free from all impurities. The means by which this is accomplished consists in the application of a non-congealable saline liquid in immediate contact with or exposed to the atmosphere, and having immersed in it a pipe or pipes containing and conducting a refrigerant gas. By this arrangement the refrigerant gas keeps the non-congealable liquid at or below the freezing point of water, while the liquid acts upon the atmosphere, passing in contact with it to absorb all its impurities and moisture, and keep it at a low temperature. The refrigerant agent employed is anhydrous ammonia, but the patent does not confine the inventor to any particular medium for producing the necessary cooling of the non-congealing saline liquid. The application of this invention on a large scale is of great value when substituted for the large body of ice that is now used in curing and packing-houses. The apparatus requires but little space, and by means of the very low and dry state of the atmosphere produced by the non-congealing liquid, meats can he effectually cured and preserved.

Valve for Steam Engine.—George W. Van Deren, San Bernardino, Cal. This improvement is especially applicable to an engine previously patented hy the same inventor. It consists in a novel method of constructing the semi-circular cylinder, so that one patteru will serve for both parts. The cyliuder can be easily and truly bored out, and the parts are united by a soft metal tongue, which brings them truly together and makes a steam-tight joint. The cylinder is constructed with a diaphragm or head across its center, and its ends are left open. Two pistous work in the cyliuder, one on each side of the head, and these pistons are united by a curved arm or piston rod, which passes from one head to another and is connected with a center about which the pistons work and by which they are supported.

Combination Excavator and Dump Cart.—Jacob Price, San Leandro, Alameda county. This invention relates to certain improvements in that class of excavating machines in which a number of buckets are formed on the periphery of one of the bearing wheels of a cart, so that the earth which is turned and deposited in the buckets by a plow attached below the cart body will be lifted by the motion of the wheel and deposited in the box or body of the cart until it is filled, when it can be transported to any desired place and dumped. The arrangement permits the buckets to dump their loads directly into the box without the necessity of using chutes or carriers. The plow will retain its plowing position at any elevation, as both ends of the beam will be raised and lowered simultaneously. By the use of a "spreading" wheel (placed horizontally) the box is filled a level full, and an objection heretofore made to these machines is obviated on account of the piling up of the dirt upon the side of the box next to the elevating wheel. The improvements referred to make this class of excavating, transporting and dumping machines convenient, effective and easy to operate.

Operating Saw-mill Head Blocks.—William Phillips, Colfax, Placer county. Mr. Phillips' patent covers certain improvements in operating saw-mill head blocks, and consists, first, in a novel connection with the pawl lever (which turns the ratchet and pinion to operate the rack on the head block) so that all lost motion of the pawl between the teeth is taken up before the lever begins to move, and consequently the log will he moved exactly as much as is indicated upon the rule over which the lever passes, and all the cuts will be made of the same size. The invention further consists in the use of a curved rack having subdivisions and an adjustable stop, by which the exact thickness of the lumber will he insured at each cut.

Forming Embankments or Levees.—Georg Swift and William T. O'Neale, San Francisco This patent covers a new method of making embankments and levees. The claim is: The method of forming levees or embankments; the same consisting in constructing low embankments or timber retaining walls successively above each other for the formation of canals, channels or troughs, and filling said channels by any suitable means with sand, gravel or other sedimentary deposit, mixed with water, which is drawn off after the sediment has been deposited, thus forming a concrete embankment.

Adjustable School Desk —Bruce Wolverton, Rohnerville, Humboldt county, California. The object of this invention is to provide certain improvements in school desks, and it consists first in a novel construction of the seat and top so that they can be elevated or depressed independently of the main frame and of each other, thereby making it easy to adjust each seat to the size of the pupil without interfering with the others. The invention also relates to a novel means for hinging and locking the seat and top in position and also for adjusting the angle of the top.

Combined Ferrule and Trace Fastener for Whiffletrees.—Thomas J. Hubbel, Napa. The object of the invention is to combine a trace fastener of superior construction with the ferrule that fits over the ends of the singletrees. The device can also be applied on the ends of neck yokes, so as to provide a convenient fastening for the breast-straps. The same device can be used on the ends of neck yokes for providing a fastening for the breast-straps.

The People's and Grangers' Immigrant Bureau, 40 California St.

This institution, according to reports published in the daily papers, has provided situations free of charge for more than 6,000 applicants, and furnished 7,000 persons in search of lands for settlement with letters of introduction to prominent citizens in the interior. The services of the hnreau aro entirely free to all, as it is supported by subscription. It is just what we need in California, and should he supported. Orders for help will be filled free of charge to either employer or employee. Send them in. Hundreds of immigrants are waiting for them.

Woodward's Gardens embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

CHRISTMAS.

Something New!
Something Beautiful!
Something to Keep!
Something to send East to your friends!
Something to put your Photographs in!

WHAT IS IT?

Eighteen Photo-lithographic Views of the Pacific Coast—Golden Gate, San Francisco, Mission San Juan Capistrano, Cliff House and Seal Rocks, Sutter's Mill, Quartz Mill and Mining, Hydraulic Mining, Yosemite Fall, Big Trees, Vernal Fall, Geyser Canyon, Donner Lake, Uncle Sam, from Lakeport, Mount Diablo, from Benicia, Mount Shasta, Fort Point, S. F., University at Berkeley, State Capitol; all enclosed, in an oroide box, with the design of the U. S. $20 gold piece stamped thereon. Sent postpaid for 30 cents; four for a dollar. Send postage stamps, P. O. order, currency, gold or silver. Address,

W. C. QUINBY & CO.,
414 Clay street, San Francisco, Cal.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Wednesday, Nov. 15th, 1876.

The week closes with the Presidential election still unsettled, and trade has resumed its activity to abide the event. The close of the week is also marked by a resumption of the war rumors from the East and an advance in the cable price for Wheat, which carries with it the local prices, and our quotations will be found higher than last week. The weather in this State has been clear and farming operations are now in active progress.

Range of Cable Prices of Wheat.

The conrse of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	CAL. AVERAGE.	CLUB.
Thursday	10s 2d@10s 5d	10s 4d@10s 8d
Friday	10s 2d@10s 4d	10s 4d@10s 7d
Saturday	10s 2d@10s 4d	10s 4d@10s 7d
Monday	10s 2d@10s 4d	10s 4d@10s 7d
Tuesday	10s 3d@10s 5d	10s 5d@10s 8d
Wednesday	10s 3d@10s 5d	10s 5d@10s 9d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	9s 8d@10s	— 10s 3d@10s 9d
1875	10s 8d@11s	— 11s 2d@11s 6d
1876	10s 3d@10s 5d	10s 5d@10s 9d

From the above figures the upward tendency of the cable can be seen.

The Foreign Review.

The review from the *Mark Lane Express*, written on Monday, before the late advance was made, is telegraphed as follows: The clear dry days and the absence of moisture during the past week have been of great service, enabling farmers to consign Wheat to the ground under favorable circumstances, and a larger breadth has been sown than last year. The Potato crop shared this advantage, especially the Irish, but the English yield, notably in the midland counties, has been very unsatisfactory. There has been very little alteration in the quantity of English Wheat in the markets, and supplies, both in London and the provinces, continue limited, farmers preferring to withhold corn in the present depressed aspect of trade. Dullness prevailed in most country markets, and business, generally speaking, was quite of a retail nature. The improved aspect of the Eastern question has caused the local trade to relapse and lose the recent advantage of two shillings per quarter. Shipments of Russian Wheat are taking place rapidly in view of the approaching winter, the closing of Cronstadt and the Sea of Azov ports. The Board of Trade returns for October show a considerable decrease of imports, as compared with 1875, from the Continent, Egypt, Chile and most notably the United States and Canada, the only country showing an increase being Great Britain. These facts are suggestive, as showing that the diminution extends to all our usual sources of supply. The week's supplies have shown some increase, but the larger portion of the increase in Wheat has been from India, and it has been most interesting to watch how steadily Imports of this class of grain have been increasing from comparative insignificance to a prominent proportion in our source of supply. A notable feature in the return of imports on Monday was the absence of Wheat arrivals from Atlantic ports. Depression exists throughout the trade. Both Wheat and feeding Oorn have declined in value, while the demand was entirely of a retail and consumption character. The floating cargo trade ruled quiet.

Freights and Charters.

The ocean Freight transactions for Wheat were little more than nominal last week and there are no new rates to quote. A single charter for a large wooden ship was made at £2 10s. The *Commercial News* reports now in port, 49,157 tons under charter for Wheat and 49,347 disengaged.

Chicago Grain Market.

CHICAGO, Nov. 12th.—The week's business in the breadstuffs market has been the lightest for several months. The unsettled political situation has distracted the attendance, not only of dealers here, but has been the means of diverting both buying and selling orders and produce itself from the granaries. Wheat has ranged generally lower, selling at $1.07⅛@$1.09, closing at medium figures. Corn has ranged from 41⅞@43¾c, closing at 43¼c. Oats have been alternately weak and firm, closing at 32½c. Receipts for the week—Wheat 556,000 bushels, Corn 47,000, Oats 152 000; against Wheat 704,000, Corn 367,000, Oats 347,000, for the same time last year. Shipments—Wheat 302,000 bushels, Corn 1,150,000, Oats 363,000; against Wheat 653,000, Corn 478,000, Oats 547,000, same time last year. Other business has been so unimportant as not to merit notice.

Oregon Wheat Market.

The *Oregonian* of Nov. 4th says: The market in this department manifests a great deal of life, and the aggregate volume of transactions is very heavy. Wheat is coming forward in the interior a little more freely, and the agents of some of our exporters report considerable quantities purchased during the week. The Walla Walla country is sending down a very important proportion of the receipts, and the Wheat from that section appears of a better quality than it was in former seasons. The cars and boats also bring large quantities from the upper Willamette, so that vessels are receiving rather better dispatch than was anticipated a fortnight ago. Prices have not been put down in the local market, though both European and San Francisco quotations are a shade lower.

Eastern Wool Markets.

NEW YORK, November 11th.—During the week just closed there has been a very limited inquiry for Wool, due wholly to the interest in the election. Buyers have been very scarce, and the few that have visited the market have shown little disposition to operate. On the part of dealers, the same firmness that has characterized their demands during the past 90 days is still visible, and the general belief is that a higher rate of values is more probable than a lower. Sales for the week are: 214,000 lbs fall California at 17@26c; 20,000 lbs pulled do, 33c; 23,000 lbs fall Texas, 25@28c; 50,000 lbs XX and above Ohio, 47½c; 10,000 lbs Michigan, 42½c; and 10,000 lbs State, 2,000 lbs uncombed Indiana combings, 50,000 lbs Wyoming, 48 sks Western Texas, 7,000 lbs medium Eastern do, 1,000 lbs Lake, 1,500 lbs scoured California, and 2,500 lbs old X pulled on private terms.

BOSTON, November 11th.—Wool quiet. The sales were the smallest for several months. Prices steady and firm. Ohio has been quiet. There is a demand for medium fleeces for the Philadelphia market, and better prices were obtained for several round lots. Ohio and Pennsylvania have been sold at 42½@45c. Sales of fine fleeces were comparatively small, ranging from 46@47c for XX and 40@46c for X. Michigan attracted more attention than any other kind, the sales comprising 230,000 lbs at 38@40c, with a firm market. Sales of Wisconsin were 37,000 lbs at 40½@11c. Combing and delaines steady and firm, combing ranging from 48 to 52½c. and fine delaines from 43@47c. Pulled, quiet and firm; sales comprise 57,000 lbs. Good and choice supers are selling at from 40 to 45c. Ohio supers are very scarce and difficult to find. California is in demand, with sales of 329,000 lbs at 20@29½c for spring and 17½@25c for fall.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

ARTICLES.	WEEK Oct. 25.	WEEK Nov. 1.	WEEK Nov. 8.	WEEK Nov. 15
Flour, quarter sacks	42,711	111,793	94.056	58,923
Wheat, centals	433,997	514,389	273,10-	354,142
Barley, centals	53,119	41,378	48,476	19.932
Beans, sacks	2,584	6,248	12,581	6,932
Corn, centals	2,998	1.398	8.800	5,053
Oats, centals	3,091	7 380	22.321	9,918
Potatoes, sacks	16,490	21,960	40,600	26,563
Onions, sacks	1,859	1,427	1,684	1,451
Wool, bales	8,383	6,291	4,331	2,946
Hops, bales	989	1,358	1,080	747
Hay, bales	1,379	996	706	1,240

Bags—The price of Standard Wheat Bags drops again, owing to the absolute lack of demand and the abundance of the stocks on hand. Prices must now be brought to holding over figures, if any sales are made, and no one will buy otherwise. Our list of prices has been changed in several particulars, as may be seen below.

Barley—The Barley market is quiet this week. The sales of Brewing for export, last week, have not been repeated, except in a lot of 350 tons, purchased for export to England, probably at ontside prices. Chevalier cannot be quoted now above $1.40, while Chevalier of ordinary grades can be bought as low as $1,25. The general trade in the grain has been quiet. We note sales: 200 sks Coast Feed, 90c; 900 do do, 95c; 150 do do, 97½c per ctl, all silver; 800 sks choice Brewing at $1.15, half silver; 1,900 do good Coast Feed, 95c, silver; 150 sks at 97½c; 400 at 95c; 200 do, 90c per ctl, silver; 300 sks Coast Feed, 90c, silver; 1,000 sks Coast Feed at 90c; 1,200 do do, 92½c per ctl, both silver; 1,400 sks at 90c silver; 1,900 sks bright Coast Feed at 95c, silver.

Beans—Small White and Pea Beans are a little cheaper. Other kinds are nnchanged. We note sales as follows: 500 sks good Butter, $1.50, silver; 35 sks small White, $2; 50 sks Pea, $2.12½; 66 sks Bayo, $2.75; 300 do Lima, $2.25; 200 do Pink, $3, all silver.

Buckwheat—Sales of 100 sks at $2 per ctl.

Corn—Corn has been weak during the week, and sales have been made at lower figures. We note sales as follows: 200 sks large Yellow, $1.07½ per ctl, silver; 450 sks large and small Yellow, in lots, at $1.07½, silver; 300 sks good large Yellow at $1.05; 1,400 sks large Yellow at $1.05 per ctl, silver; and 175 sks choice White at $1.07½, silver; 200 sks small round at $1.10; 50 do large Yellow at $1.05; 200 sks small Yellow at $1.10 per ctl.

Dairy Produce—The market for dairy products is altogether without change. The demand for first-class fresh Roll is still sharp, but the general price is held down by the large quantities of common qualities which are received. Pickled Roll has been weaker and the price is a point lower. Cheese is unchanged.

Eggs—Eggs are selling at last week's prices, 47½@50c per dozen.

Feed—Ground Feed is unchanged in price. Hay has sold at last week's range; choice Wheat being quoted at $16. We note sales: 42 tons fair Wild Oat and Barley mixed at $1.14; 35 tons fair Alfalfa, $10; one cargo ordinary Wheat, $14, and one of good at $15; 46 tons of Wild Oat and Wheat mixed at $14.50; 46 tons good Cow at $11; 54 do fair volunteer Wheat and Oat at $12.50 per ton.

Fruit—The supply of Limes is very large, many from Los Angeles selling very low because of size and quality. The *Call* says: "The Brig Nautilus is at hand again from Tahiti with a cargo of 200,000 Oranges. This is the third trip the vessel has made between this port and that island during the season. The importations of Tahiti Oranges this season to date have been 5,102,000. One more cargo is expected, which will wind up the business for the season. The number of Oranges already received reaches the average yearly importation of 5,000,000. The new crop Mexican fruit has commenced to arrive, and the market will be supplied with it until January, when the California crop makes its appearance." Sicily Lemons are cheaper. Grapes are generally advanced in price. Quinces are cheaper.

Hops—There is nothing doing in Hops. Prices are stationary. The New York market for the week ending Nov. 3d is reviewed by Emmet Wells as follows:

Trade has been rather quiet this week. We notice considerable pressure to realize on medium and low grades, the stock of which is fast accumulating. Choice shipping hops keep firm in price, and are by no means plenty. Late reports from Germany indicate that American take the preference above all foreign Hops; this will be encouraging news to shippers and holders of fine goods. We have already shipped to Europe over 10,000 bales of our new crop, against 6,000 bales during the corresponding season last year. Prices in London are looking up; but dealers there are not yet ready to meet our price, consequently very few Hops are going forward to market from here.

Oats—The range of prices is unchanged. We note sales: 390 sks choice heavy Oregon, $1.90, gold; 150 sks Feed, $1.62½, half silver; 200 sks Feed, $1.60, silver; 500 sks do $1.65@$1.70; 200 do do, $1.75; 300 do Milling, $1.90; 1,000 sks good Feed, $1.70; 300 sks good Feed, $1.70.

Onions—Onions are unchanged. The supply is abundant. Sales of good Onions in gunnies at 70c, in burlaps 60@65c per ctl.

Potatoes—Petaluma and Half Moon Bay Potatoes are lower. The receipts are large. We note sales: 800 sks fair Tomales, 55@80c; 300 sks Bay, 60c; 200 sks fair Petalumas, 60c.

Poultry and Game—Hens are cheaper. Turkeys have experienced a decline of 2c per lb. Game is very abundant. Snipe have fallen to 50c per dozen to-day. Venison is 1c lower.

Provisions—The market for fresh Meat is improving, but no advance in price is yet quotable. Nevada Cattle are coming in slowly. Sheep are in good supply. Small Veal is scarce. Cured Meats are selling fast, owing to country merchants putting in their winter stocks.

Rye—Wharf sales are quoted at $1 50@$1.55. Warehouse lots are still held at $1.60 in some cases.

Vegetables—Green table Vegetables are advanced all around, as may be seen in our table of prices below. Melons are now out of the market for the season.

Wheat—Wheat is quotable at an advance. Rates may now be given at $1.75@$1.80 for Shipping Wheat, the latter price for round lots of choice; Milling Wheat, $1.80@$1.82½. We note sales during the week as follows: 500 sks Coast Shipping, $1.62½; 4,000 ctls choice Milling, $1.80; 2,000 sks good Milling, in large new sacks, to a shipper, at $1.77½; 800 ctls choice Milling, $1 80; 3,000 sks Coast Shipping at full rates; 10,000 ctls choice Shipping, $1.75 per ctl; 4,800 sks extra choice Milling, $1.82½; 800 sks extra choice Milling, $1.82½; 300 do good do, $1.72½; 160 do poor, $1.50; 9,000 sks choice Shipping, $1.80; 225 do for Milling, $1.60 @1.72½; 1,600 sks at $1.72½; 992 sks Milling, $1.72½; 3 carloads at $1.72½; 50 tons at $1.65; 1,200 sks choice Australian Milling, $1.77½; 300 sks Superfine, $1.60; 800 sks choice Milling, $1.80; 1,000 do choice Shipping, $1.77½; 142 sks Superfine, $1.50; 340 ctls Coast Shipping, $1.70; 1,275 sks Milling, $1.75; 800 do extra do, $1.82½; 6,000 do do, $1.77½; 1,200 sks choice Milling, $1.80, silver; 8,000 do do, $1.77½; 700 do do, $1.77½.

Wool—There is still nothing new in the local market for Wool. We note sales of 60,000 lbs at 15@18½c.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., Nov. 15, 1876.

BEANS.			
Bayo, ₱ ctl	2 50	@	2 75
Butter	1 50	@	1 87½
Pea	2 00	@	—
Red	3 00	@	3 25
Pink	2 75	@	3 00
Sm'l white	2 00	@	—
Lima	1 75	@	2 00
BROOM CORN.			
Common, ₱ lb	2	@	2½
Choice, do	3	@	4
COTTON.			
Cotton, ₱ lb	15	@	18
DAIRY PRODUCE, ETC.			
BUTTER.			
Oal. Fresh Roll per lb	30	@	45
Point Reyes	50	@	—
Pickle Roll	30	@	32½
Firkin	25	@	32½
W'st'n Reserve	16	@	25
New York	—	@	—
CHEESE.			
Cheese, Cal., lb	10	@	15
do Old	—	@	—
Eastern	12½	@	15
EGGS.			
Cal. fresh ₱ doz	45	@	50
Ducks'	40	@	—
Oregon	40	@	42½
Eastern	21	@	30
FEED.			
Bran, per ton	16 00	@	—
Corn Meal	27 50	@	—
Hay	2 00	@	16 00
Middlings	22 50	@	—
Oil cake meal	—	@	33 50
Straw, ₱ bale	60	@	72½
FLOUR.			
Extra ₱ bbl	5 75	@	6 12½
Superfine	4 50	@	5 00
Graham, ₱ bbl	4 50	@	4 75
FRESH MEAT.			
Beef 1st quality lb	4½	@	6
Second do	3½	@	4½
Third do	2½	@	3½
Mutton	4½	@	5
Pork, undressed	6	@	6½
do. dressed	8¾	@	8¾
Veal	5½	@	6
Milk Calves	7	@	8½
GRAIN, ETC.			
Barley, feed ctl	90	@	95
do brewing	1 05	@	1 17½
Chevalier	1 25	@	1 40
Corn, White	1 12½	@	1 15
do Yellow	1 10	@	1 15
Oats	1 40	@	1 65
Milling	1 70	@	1 85
Rye	1 55	@	—
Wheat shipping	1 75	@	1 80
do milling	1 80	@	1 82½
HIDES.			
Hides, dry	15½	@	16
do wet salted	6	@	7½
HONEY, ETC.			
Beeswax, per lb	25	@	27½
Honey in comb	10	@	12½
do Strained	6	@	8
HOPS.			
New crop	25	@	28
NUTS—Jobbing.			
Alm'ds h'rd sh'l ₱ lb	8	@	—
do, soft sh'l	14	@	16
Brazil do	14	@	16
Oal. Walnuts	11	@	12
Chile Walnuts	11	@	12½
Pecannts	17	@	18
Peanuts per lb	8	@	9
Filberts	15	@	16
ONIONS.			
Union City ctl	—	@	60
Stockton	55	@	65
POTATOES.			
Petaluma, ₱ ctl	60	@	75
Salt Lake	—	@	—
Humboldt	—	@	—
Half Moon hay	60	@	85
Ouffey Cove	—	@	1 00
Early Rose new	65	@	75
Sweet	50	@	62½
POULTRY & GAME.			
Hens, per dz	7 00	@	8 50
Roosters	5 00	@	7 00
Broilers	4 00	@	5 00
Ducks, tame, dz	7 00	@	9 00
Geese, per pair	1 75	@	2 00
Wild Gray dz	2 00	@	2 50
White	—	@	1 50
Turkeys, Live, lb	14	@	16
do Dressed	12½	@	17
Quail, per doz	1 25	@	1 50
Snipe, Eng., doz	50	@	—
Doves, per dozen	50	@	57
Rabbits	1 00	@	1 25
Hare, per doz	2 00	@	2 50
Venison lb	6	@	8
PROVISIONS.			
Cal. Bacon, L't, lb	16	@	16½
do Medium	15	@	15½
do Heavy	—	@	15
Lard	13½	@	15½
Cal. Smoked Beef	11	@	12½
Eastern do	—	@	—
East'rn Should's	—	@	12
Hams, Cal	15	@	15½
do Armour	—	@	—
do Worster's	—	@	19
do Dupee's	19	@	19½
do Davis Bros'	—	@	19
SEEDS.			
Alfalfa, Ohile lb	9	@	13
do California	14	@	16
Canary	10	@	12½
Clover Red	—	@	22
do White	50	@	55
Cotton	6	@	10
Flaxseed	—	@	3½
Hemp	12½	@	—
Italian Rye Grass	25	@	30
Perennial do	20	@	30
Millet	10	@	12
Mustard, white	8	@	10
do. Brown	3	@	3½
Rape	4	@	5
Ky. Blue Grass	30	@	—
do 2d quality	20	@	—
Sweet V Grass	—	@	75
Orchard do	30	@	35
Red Top do	—	@	25
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	20	@	25
Timothy	11	@	12
TALLOW.			
Crude, ₱ lb	5	@	6
Refined	8¾	@	9
WOOL, ETC.			
FALL—			
Free	12	@	14
Choice	14	@	16
Northern	17	@	21
Burry	10	@	16
Oregon Eastern	20	@	—
do Valley	25	@	—

LEATHER.

[WHOLESALE.]

WEDNESDAY M., Nov. 15, 1876.

ole Leather, heavy ₱ lb	25	@	28
do do light ₱ lb	20	@	22
Jodot, 8 Kil., per doz	48 00	@	50 00
Jodot, 11 to 13 Kil., per doz	68 00	@	79 00
Jodot 14 to 19 Kil., per doz	82 00	@	94 00
Jodot, second choice, 11 to 16 Kil. ₱ doz	57 00	@	74 00
Cornellian, 12 to 16 Ko	57 00	@	67 00
Cornellian Females, 12 to 13	63 00	@	67 00
Cornellian Females, 14 to 16 Kil	71 00	@	76 50
Simon Ullmo Females, 12 to 13, Kil	58 00	@	62 00
Simon Ullmo Females, 14 to 15, Kil	66 00	@	70 00
Simon Ullmo Females, 16 to 17, Kil	72 00	@	74 00
Simon, 18 Kil., ₱ doz	61 00	@	63 00
Simon, 20 Kil. ₱ doz	65 00	@	67 00
Simon, 24 Kil. ₱ doz	72 00	@	74 00
Robert Calf, 7 and 9 Kil	35 00	@	40 00
French Kips, ₱ lb	1 00	@	1 15
California Kip, ₱ doz	40 00	@	6 00
French Sheep, all colors, ₱ doz	8 00	@	15 00
Eastern Calf for Backs, ₱ lb	1 00	@	1 25
Sheep Roans for Topping, all colors, ₱ doz	9 00	@	13 00
Sheep Roans for Linings, ₱ doz	5 50	@	10 50
California Russett Sheep Linings	1 75	@	4 50
Best Jodot Calf Boot Legs, ₱ pair	5 00	@	5 25
Good French Calf Boot Legs, ₱ pair	4 00	@	4 75
French Calf Boot Legs, ₱ pair	4 00	@	—
Harness Leather, ₱ lb	24	@	32½
Fair Bridle Leather, ₱ doz	48 00	@	72 —
Skirting Leather, ₱ lb	33	@	37½
Welt Leather, ₱ doz	30 00	@	50 00
Buff Leather, ₱ foot	17	@	⅝
Wax Side Leather, ₱ foot	17	@	

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by SUTRO & CO.]

SAN FRANCISCO, Nov. 15, 3 P. M.

LEGAL TENDERS in S. F., 11 A. M., 91 to 91½. Silver 5¼@6¾.

GOLD in N. Y., 109¾.

GOLD BARS, 880 to 890. SILVER BARS, 12@20 per cent. discount.

EXCHANGE on N.Y., 50@55-100 per cent. premium for gold; on London bankers, 49; Commercial, 49¼; Paris, five francs per dollar; Mexican dollars, 5 per cent. discount.

LONDON — Consols, 96⅛; Bonds, 102¼

QUICKSILVER in S. F., by the flask, per lb, 56@57½c.

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., Nov. 15, 1876.

BAGS.			
Eng. Stand Wht	9¾	@	10½
Neville & Co's			
Hand Sewed, 22x36	9¾	@	10
24x36	10½	@	11½
23x40	11	@	—
Machine do 22x36	9½	@	10½
Flour Sacks ½s	9	@	11
" " ¼s	6	@	7
" " ⅛s	4½	@	5
Hessian 60-in	11½	@	12
do 45-in	9½	@	10
do 40-in	8½	@	9
Wool Sacks, 3½ lbs	45	@	50
do 4 "	50	@	52½
Stand. Gunnies	11½	@	12
Bean Bags	7	@	8
CANNED GOODS.			
Asst'd Pie Fruits in 2½ lb cans	2 75	@	3 00
do Table do	3 75	@	4 25
Jams & Jellies	4 25	@	—
Pickles ½ gl	—	@	3 50
Sardines, qr box	1 65	@	1 90
do hf box	3 00	@	—
COAL—Jobbing.			
Australian, ₱ ton	8 00	@	8 25
Coos Bay	—	@	9 00
Bellingham Bay	—	@	9 00
Seattle	—	@	9 00
Cumberl'd	14 00	@	16 00
Mt. Diablo	5 75	@	7 75
Lehigh		@	22 00
Liverpool	8 50	@	10 00
West Hartley	—	@	14 00
Scotch	9 00	@	10 00
Scranton	13 00	@	16 00
Vancouver's Isl	10 50	@	12 00
Charcoal, ₱ sk	75	@	—
Coke, ₱ bbl	—	@	60
COFFEE.			
Sandwich Island	—	@	21½
Costa Rica per lb	21	@	—
Gnatemala	20½	@	21½
Java	—	@	23
Manilla	20	@	21
Ground in cs	25	@	—
Unicorv	27	@	—
FISH.			
Sao. Dry Cod, new	5	@	5½
oases	6	@	7½
do boneless	8½	@	10
Eastern Cod	8	@	8½
Salmon in bbls	6 50	@	7 25
do ½ bbls	3 75	@	4 00
do 2lb cans	2 65	@	—
do 1lb cans	1 80	@	—
do Col. R. ½s	4 25	@	4 50
Pick. Cod, bbls	22 00	@	—
do ½ bbls	11 00	@	—
Mack'l, No. 1, ½bls	11 00	@	—
" Extra	—	@	12 00
" in kits	1 12½	@	2 25
" Ex mess	3 50	@	4 00
" Ex mess. ½bs	—	@	12 00
Pic'd Herr'g, bx	3 00	@	3 50
Sos. Sm'k'd Her'g	40	@	50
LIME, ETC.			
Lime, S'ta Cruz, ₱ bbl	2 00	@	2 25
Cement, Rosendale, do	2 75	@	3 50
do Portland do	4 75	@	5 50
Plaster, Golden Gate Mills	3 00	@	3 25
Land Plaster, ₱ ton	10 00	@	12 50
MISCELLANEOUS.			
Pulu	—	@	7½
NAILS.			
Assorted size, keg	3 25	@	4 00
OILS.			
Pacific Glne Co Neat F't No. 1	1 00	@	90
Pure	—	@	—
Castor Oil, No. 1	1 05	@	1 10
Baker's A A	—	@	1 10
Olive Plagniol	4 85	@	5 00
do Possel	4 45	@	4 50
Palm lb	9	@	—
Linseed, raw	—	@	65
do boiled	—	@	70
Oocoannt	—	@	60
China nut in os	65	@	70
Sperm	—	@	—
Coast Whales	60	@	65
Polar, refined	—	@	60
Lard	1 15	@	1 17½
Oleophine	—	@	37
Devoe's Bril't	38	@	39
Eureka	32½	@	38
Barrel kerosene	32½	@	—
Downer Kerose'e	45	@	—
Elaine	—	@	42
PAINTS.			
Pure White Lead	9¾	@	10½
Whiting	—	@	1¾
Putty	4	@	5
Chalk	—	@	1½
Paris White	—	@	2½
Ochre	—	@	3½
Venetian Red	—	@	3½
Averill Chemical Paint, per gal.			
White & tints	2 00	@	2 40
Green, Blue & Ch Yellow	3 00	@	3 50
Light Red	3 00	@	3 50
Metallic Roof	1 30	@	1 60
RICE.			
China No. 1	—	@	6
Hawaiian, ₱ lb	7	@	—
Carolina, ₱ lb	10	@	
SALT.			
Cal. Bay, per ton	10 00	@	14 00
do Common	5 00	@	7 00
Carmen Island	12 00	@	15 00
Livernool fine	13 50	@	16 50
SOAP.			
Castile ₱ lb	10	@	10½
Common brands	4½	@	6
Fancy do	7	@	8
CANDLES.			
Grant's	16	@	16½
Mitchell's	18	@	20
SPICES.			
Cloves ₱ lb	45	@	47½
Cassia	23½	@	26¾
Citron	28	@	30
Nutmeg	95	@	97½
Whole Pepper	14¾	@	16¾
Pimento	16	@	17½
Gr'nd Allsp'ce dz	—	@	12
do Cassia do	—	@	50
do Cloves do	—	@	50
do Mustard do	—	@	50
do Ginger do	—	@	1 00
do Pepper do	—	@	1 00
do Mace do	—	@	2 00
Bowen's Pure Ground ₱ lb	—	@	50
SUGAR, ETC.			
Cal. Cube per lb	—	@	13½
Oirole A crushed	—	@	13½
Powdered	—	@	13¾
Fine crushed	—	@	13½
Granulated	—	@	13
Golden C	—	@	11½
Hawaiian	10	@	11
Cal. Syrup in kgs	—	@	72½
Hawaiian Molasses	25	@	27½
TEA.			
Oolong, Canton, ₱ lb	19	@	25
do Amoy	28	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	40
do Pingsuey	45	@	80
do Moyune	60	@	1 00
Gunpo'der, Cant	75	@	1 00
do Pingsney	50	@	90
do Moyune	65	@	1 25
Y'ng Hy., Canton	28	@	40
do Pingsuey	40	@	70
do Moyune	65	@	80
Japan, ½ chests, bulk	30	@	75
Japan, lacquered hxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb hxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ & 1 lb paper	30	@	55
TURPENTINE.			
Eastern	50	@	55

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., Nov. 15, 1876.

FRUIT MARKET.			
Oranges Mex. ₱ M	25 00	@	30 00
Tahiti, do	—	@	—
Oal. do	—	@	—
Limes, Mexican, ₱ M	5 00	@	10 00
Malaga Lemons, ₱ hx	—	@	—
Cal. ₱ 100	2 00	@	2 50
do Sicily ₱ b'x	11 00	@	12 00
Bananas, ₱ bnch	2 00	@	3 00
Ocoaunts, ₱ 100	6 00	@	7 00
Pineapples, ₱ doz	—	@	—
Apples, ₱ box	50	@	1 50
Apricots, ₱ lb	—	@	—
Blackberries ose	—	@	—
Cherries ₱ lb	—	@	—
Plums lb	2	@	3
Prunes lb	2	@	4
Figs	5	@	6
Gooseberries	—	@	—
Huckleberries	—	@	—
Strawber's ₱ cs	8 00	@	10 00
Pomgranates	—	@	—
Raspberries	—	@	—
Currants, ₱ cs	—	@	—
Orsnberries bbl	14 00	@	15 00
Peacnes, ₱ lb	5	@	9
Pears, ₱ bx	50	@	1 50
Crab apples, ₱ lb	2	@	3
Grapes ₱ box	3 00	@	4 00
Rose of Peru	7	@	1 00
Muscat	75	@	1 25
Black Hamburg	75	@	1 00
Tokay	75	@	1 00
Quinces, box	75	@	1 00
DRIED FRUIT.			
Apples, ₱ lb	5	@	6½
Pears, ₱ lb	8	@	10
Peaches, ₱ lb	5½	@	7½
Apricots, ₱ lb	10	@	12½
Plums, ₱ lb	3	@	4
Prunes, Cal.	8	@	10
Nectarines	10	@	12½
Figs	3	@	4
Raisins, imported	3 25	@	3 75
Cal. Raisins box	1 50	@	2 75
Black Figs, ₱ lb	5	@	8
White, do	12½	@	15
Prunes	12½	@	17
Citron	28	@	30
Zante Currants	9	@	10
VEGETABLES.			
Asparagus ₱ lb	—	@	—
Beets ₱ ctl	60	@	—
Cabbage, ₱ 100 lbs	50	@	60
Carrots, ₱ 100 lbs	50	@	62½
Cauliflower, doz	50	@	—
Celery, doz	50	@	—
Garlic, ₱ lb	2½	@	3
Green Peas ₱ lb	5	@	6
Green Corn ₱ doz	15	@	25
Sum'r Squash ₱ box	—	@	1 25
Marro'fat Squash, tn	8 00	@	9 00
Artichokes, ₱ doz	—	@	—
String Beans, ₱ lb	4	@	5
Lima Beans	3½	@	—
Parsnips	—	@	60
Shell Be

Seedsmen.

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Grower, Importer, Wholesale and Retail Dealer in

FLOWER SEEDS FIELD TREE GARDEN

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

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Seeds. Seeds.

IMPORTED.

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Early Canada, Early Dutton — Yellow Flint Corn.

Long Red Mangel Wurzel, Yellow Globe, White Sugar — Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

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GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

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These trees are from five to twelve inches high, transplanted regularly into boxes 30x20 inches square, weighing 150 pounds. 150 or 500 in each box, in splendid condition for transplanting to their permanent location. Price, $6 to $12 per 1,000. Will contract to plant the trees, or furnish superintendence, on low terms. Cash must accompany orders for less than $50, or if greater than that amount, city reference must be given. Address,

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50 Visiting Cards, with your name finely printed, sent for 25c. We have 100 styles. Agents Wanted. 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

The GORHAM SEEDER AND CULTIVATOR COMBINED



No Other Machine Presents such an Array of Useful Devices, and, taken together, they Constitute the Gorham Seeder a Machine Distinct and Separate from all others of its Class.

We Ask all Those in Want of a Seeder to Call upon us and Give our Machine a Thorough Examination, or Write Directly to Us.

We can produce single testimonials that would fill this page, claiming for it a reputation as broad as its use is extensive. Among the hundreds who have used them we refer to as many as space will admit, in different parts of the State, who are using from 1 to 16 machines each:

Dr. Glenn, of Jacinto; R. S. Cary, Sacramento; Charley Coyle, Woodland; G. W. Scott, Yolo Co.; Bullard & Co., Chico; John Simpson, Tehama; E. Hunter, Princeton; John Boggs, Colusa; Murdock & Jones, Colusa; Overhiser, of Grangers' Union, Stockton; A. L. Layre, Fresno Co.; I. Friedlander, San Francisco; John Mitchell, Modesto; Grangers' Union, San Jose.

THE SIX-FOOT MACHINE, with two horses, will seed 12 acres per day easily. THE EIGHT-FOOT MACHINE will seed 16 acres per day; THE TEN-FOOT MACHINE, with four horses, will seed twenty-five acres per day; THE TWELVE-FOOT MACHINE will seed 34 acres per day; THE FOURTEEN-FOOT MACHINE, with six horses, will seed 40 acres per day. ☞ Extras of all parts always found with us.

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Iron Harrows; Hard Wood Harrows, with adjustable hinges; Teeth of the Best Toe-Cork Steel; seven and nine Chisel Tooth Cultivators, with Reversible Teeth.

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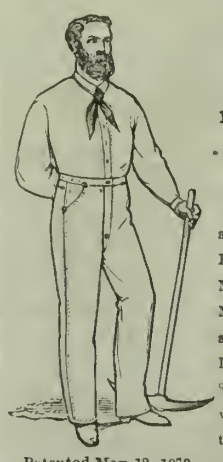
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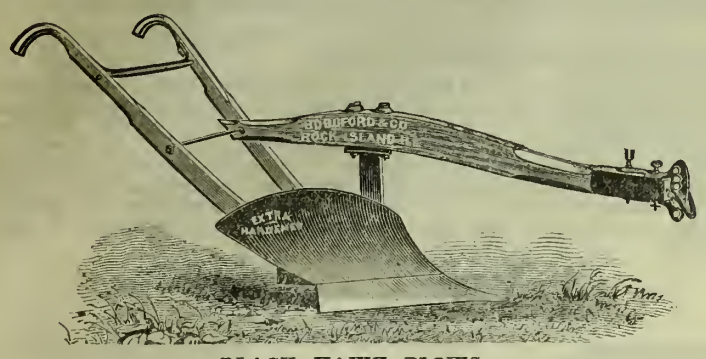
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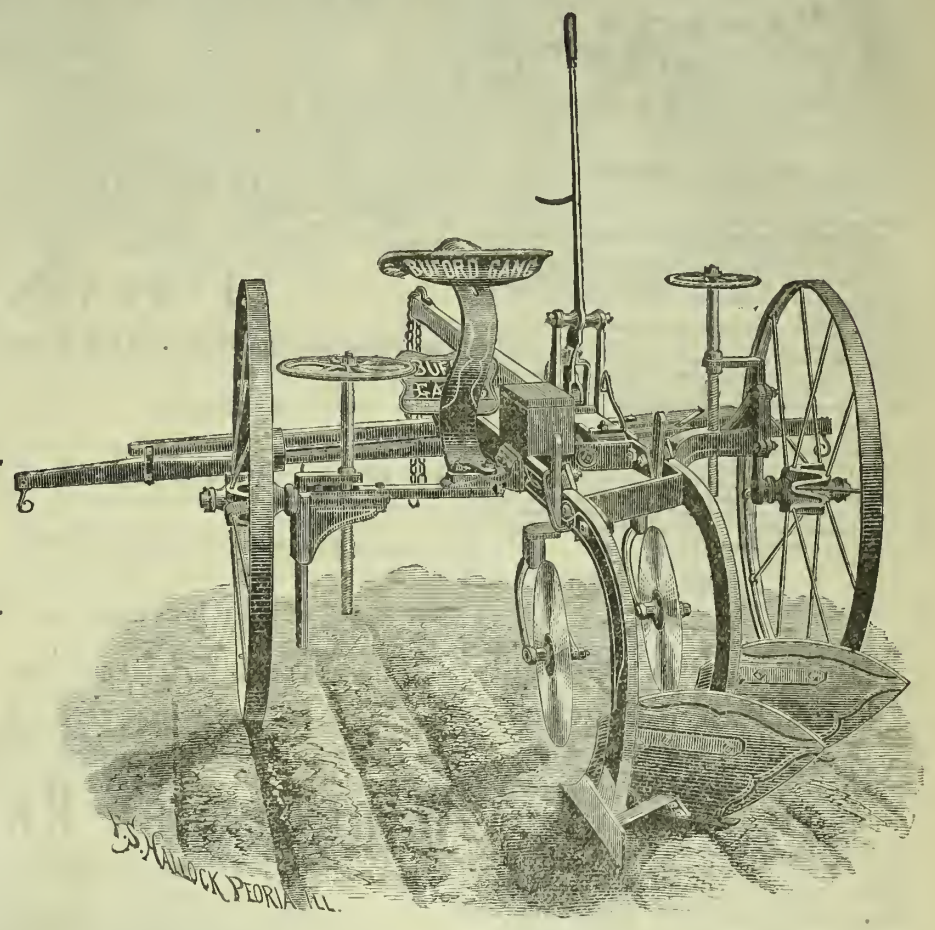
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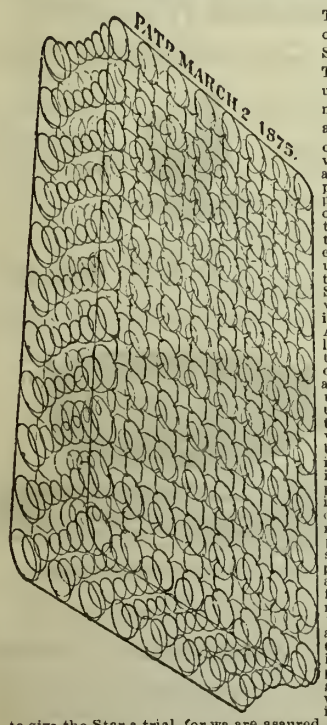


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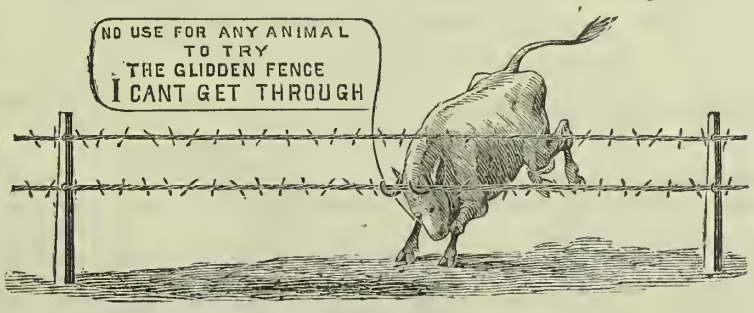
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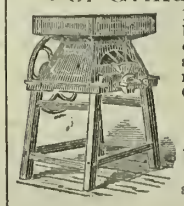
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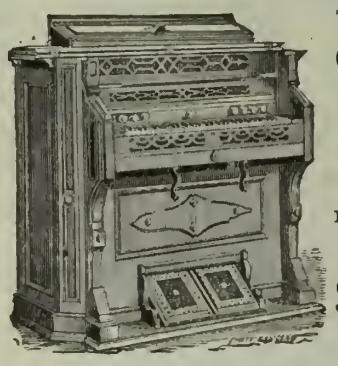
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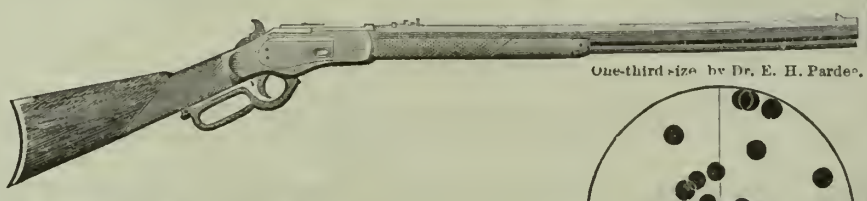
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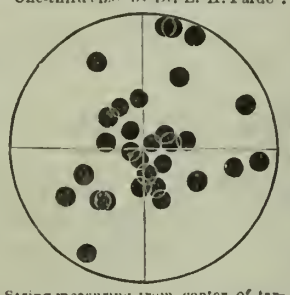
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A COMPLIMENT.

PLAINSBURG, MERCED CO., CAL., June 22, 1874.

DEWEY & Co.—*Gentlemen:* I herewith tender my grateful acknowledgements for the energy, promptness and efficiency which you have displayed in procuring my patent.

Although you were entire strangers to me when I first communicated with you, I soon felt satisfied you were gentlemen of integrity, and shall always be happy to represent you as such. Very truly yours,

H. W. RUCKER, M. D

SACRAMENTO, May 29th, 1875.

MESSRS. DEWEY & CO.—*Gentlemen:*

Yours of the 27th inst. is received. The patent came duly to hand yesterday, by express. Please accept thanks for your promptness in obtaining the same.

Very respectfully, DUNCAN BEAUMONT.

PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, NOVEMBER 25, 1876. [Number 22.

Formal Closing of the Centennial.

Last week we closed up the Centennial in these colnmns, receiving the news by associated press dispatch. The telegrapbic report was, however, very tame and very inaccurate, as we learn from tbe graphic account of affairs which our representative in Philadelpbia sends us by mail. He writes as follows:

From beginning to end interest in tbe exhibition increased. During the last few weeks the every-morning view of people drawing near through the broad avenues leading to the grounds was grand indeed. Tbey poured in incessantly by steamboat, steam and horse cars. For hours each day every conceivable kiud of conveyance was hurrying to the front between black ribbon-like lines of people a-foot—walkists of all nations, sorts and sizes, anxious to reach the nniversal center of attraction on the double-qnick.

On Tbursday, the last day before the closing ceremonies, over 200,000 people were admitted. Friday, November 10th, last day of the exbibition, was set apart for the "closing ceremonies." A mammoth platform stretching wide across tbe front of the main building was erected tbe previous nigbt. In front of tbis decorated elevation extending back towards machinery hall, were placed thousands of seats for invited guests, still leaving acres of standing room for the patriotic multitude, wbich under ordinary circumstancess would bave overrun its borders, like an over-flowing sea, and it really was sucb a multitude wbich became disappointed.

The exercises were announced to take place between 2 and 4 P. M. Long before 12 the crowds began to gather around tbe rope-bound space. The rains also descended and deluged the platform and the vacant seats, but tbe men and women ontside of the ring stood their ground. Tbe nnmbers with and without umbrellas increased and multiplied. And until nearly three o'clock all were expectant of seeing President Grant with the officers of the day march forth from the judges' hall to perform at least a part of the ceremonies promised. Meanwhile tbe ceremonies proceeded in tbe judges' ball, (before the few accommodated within its limited walls,) in the order reported to our readers by wire last week.

Disappointed npon tbe grounds, many who revered the great exhibition, allured by the statement that President Grant would himself stop the big Corliss engine in machinery hall, took np their position in tbe nearest proximity attainable to tbe great motor, and patiently awaited their second disappointment, the valves being finally closed by the engineers, without tbe least formality observable by the crowd.

Delighted, as at the low murmur of tbe ocean waves, thonsands had approacbed and besitated again and again near this ponderous craft-work, ere its bnsy life so quietly ebbed. Hardly had its power throngh miles of shafting and a million of cranks gently ceased, wben a furious screecbing of nnmberless wbistles, bumming of blowers, ringing of bells, booming of cannon and acres of general din and clatter incessantly rent the air for a full quarter of an hour.

Ere quiet was restored, a spare bnilt man, of more than medium hight, rising 50 years of age, affable and venerable looking, appeared npon the platform. It proved to be George H. Corliss. He modestly received the lond and repeated applanse of the earnest and intelligent multitude that still lingered aronnd tbe engine.

Packed, jammed and crowded towards the center from its immense periphery, the breaking np of this solid mass of men and women was franght with great danger. For a few moments the sacrifice of human lives seemed inevitable. All was beyond the control of the mere sprinkling of policemen. Children were trampled on; women, terrified, shrieked for protection. Some were taken off their feet and carried a hundred yards down the main avenne. Two ladies were carried insensible np on the base platform of the engine, and scores of others helped over the railing for safety, ere quiet was restored.

At half-past four the crowd waiting in front of the main building, reinforced by detachments from machinery hall, were having a jolly time. Men cleverly counterfeiting the president and authorities of tbe day, were stepping to the front, raising their beavers, bowing, scraping, thumbing tbeir vests with elbows akim, returning thanks, etc. Umbrellas in the rear made dents in the speakers' bats. Hats, regardless of cost, returned compliments right and left to nmbrellas, and so tbe high carnival went on in the best of hnmor and manners ludicrous enough to have choked even our old forefathers witb langhter.

Tbis, as far as it goes, is a trne report. Our readers will not likely find it in any other print. It seems a pity that tbe storm disarranged the original programme. Notwithstanding the "formal" closing, tbe exbibition is to remain open ten days or more to visitors on tbe same terms of admission as heretofore. Altbongb many things are being removed, enough remains to invite tbe attendance of new-comers. A permanent exhibition is being formed of great importance.

D.

The railway conductors' excursion party, consisting of some 70 Eastern conductors, with their families, is now "doing" San Francisco.



PURPLE-GRACKLE.

Purple-Grackle.

The purple-grackle, or common crow blackbird, is well known on tbe sea-board from Louisiana to New England, as an active, energetic bird. In Louisiana they follow tbe plowman as be turns the furrow and seize upon tbe grub before it can escape from the light. Tbeir silky vestnre is of varying hue—coppery, bronze, brilliant and deep aznre, refulgent sapphire or emerald green—and their stately walk and graceful flutterings excite his admiration, wbile the destruction of each worm is the removal of an enemy of the cotton, corn, or sugar-cane; but when tbey afterwards demand a small share of these crops in compensation for tbe protection they had rendered, the planter don't see it in tbat light and slaughters tbem in numbers, without, however, effecting any apparent diminution. In flying they slightly ascend witb each effort of tbeir wings, and descend as the force of this propnlsion is becoming exhausted thus moving in a continuous undulating line, keeping np a lively chattering all the way.

House Top Gardens.

Our readers in the conntry are not alone in tbeir devotion to tbe promotion of rnral successes and comforts wbich is the ambition of our journal. We have many carefnl, appreciative readers among those wbom the chance of life bas thrown among the city streets. Many of our citizens are those wbo at one time, either here or at tbe East, have enjoyed the exhilarating air of the country morning and have passed happy years amid rural scenes. Indeed, it is said with much truth that were it not for tbe enforcements of fresh, noble man and womanhood from tbe farms of the country, our city populations would rapidly deteriorate both in mind and strengtb. Be this as it may be, we know that a longing for the joys of tbe open air and rnral beauties is strong in many breasts. It is manifested in many ways. In none perhaps is it more noticeable than in the haste witb which onr sandy door ways are transformed into velvety lawns and blooming flower gardens. Tbey may be seen on every hand. As tbe city lines approach the distant hilltops which are by nature banks of sand or rock, the green grass and the varied foliage of shrub and plant mark tbe advance. Thus the steps of tbe city's progress upon the mountains become beautiful as the feet of him who bringeth good tidings.

Tbis appreciation of the beauties of tbe field and forest is often gratified only at tbe cost of great care and ingenuity. We bave seen blooming plants on window ledges, climbing vines rooting beneath the sidewalks and flowering around tbe second story windows, and nodding blossoms from roots in chinks in masonry. But it is not of these that we would speak at this time. We have lately seen a house-top gard n which demonstrates tbe possibility of most gratifying floricultnre even by those wbose width of earth surface is bounded by the circumference of tbeir cellar walls. Mr. B. P. Moore, whose pleasant bome is on Bucbanan street, bas a bouse-top garden which we wish to describe briefly, so that other city readers of the Rural Press may enjoy the pleasures of a garden even without investment in land surface, wbich is valued by inches instead of acres.

Mr. Moore bas the flat roof of the rear portion of his bouse boarded over and a neat lattice railing encloses it. Just inside this railing tbere are long stationary beds made of tbick planks filled with rich soil. In tbese, rare roses, geraniums, heliotropes, pinks and many otber plants are flowering as profusely as tbey could in Mother Earth below. Grouped witbin tbe enclosure are clusters of pots and boxes, each tenanted by some beantiful, blooming or rich-leaved plant. At one side there is a tiny greenbouse, cosy as a fairy bower, in which are placed a great number of plants which tbrive best nnder glass.

It wonld be snrprising to one wbo bad not visited such a garden to see what a unmber and what a variety of beautiful plants can be grown in such a narrow space. It would be another surprise to see them so vigorous and so rich in bloom. And yet there is no reason why it should not be. A plant does not need great space. Growth depends more npon skill in propagation and subsequent care tban npon wide borders. Mrs. Moore is an ardent lover of floriculture, and it is ber skill and care which makes the house-top a sea of bloom. The garden above gives the opportnnity to enjoy the plants as tbey grow, and the surplns bloom adorns the parlors below. It is an arrangement which amply repays all outlay of care and expense, and is an adjunct of homemaking wbich many of our city people can employ if they will.

Centennial Figures.—A dispatch from Philadelphia says: Totals of receipts at the exhibition from all sources, from May 10th to November 10th, may be stated approximately as follows: From admission fees, $3,813,724; from concessions, $290.000; from percentage and royalties, $205.011; grand total, $4,308.735.

CORRESPONDENCE.

Notes from the North.

EDITORS PRESS:—In my travels to the North in the service of your paper, I have taken the following notes of localities visited, which I trust will be of interest to your readers:

Redding.

The first house in this place was erected in 1872. In the same year the railroad was completed to this point. By January 1st, 1873, no less than 100 houses had been or were being erected here. Redding enjoyed but a brief period of uninterrupted prosperity; fire, that terrible enemy and destroyer of wooden structures, seized upon these frail structures and swept them away, entailing a loss upon the young town of $75,000. The population now is 500. Redding is the distributing point for all California north of it, Shasta, Klamath, Trinity, Siskiyou, Modoc, part of Lassen, and the southern part of Oregon. Redding takes a front rank in its efforts to "teach the young idea how to shoot." They have raised by voluntary subscription $300, and with the coin have bought a fine bell for their school-house.

There are here many good buildings, among which are the railway depot, hotels and several stores. Many new buildings are going up in this prospering and really salubrious locality. The Redding hotel is a large, comfortable and well kept hotel. It is 100x80, two stories high. The ceilings are high, and the whole building is kept in good order, clean and well ventilated. The railroad depot is a substantial building, 150x30. Bush & Johnston, forwarding agents, have their office in the building. John Craddock, who has held the whip and ribbons for 20 years, now keeps a livery stable. D. Breslauer's stock of general merchandise represents $15,000. He has been ten years in business. Wells-Fargo's office is in the hotel; R. G. Dunn agent. In the railroad ticket office J. M. Chappel is agent, and in the California and Oregon stage office Frank Drew is agent.

Shasta.

From Judge Carter, a pioneer of '49, a hale and hearty American gentleman of this place, we learn that in the fall of '49 this was a flourishing mining camp, situated in the midst of a large prospering mining region. The enchanting genius of prosperity went smiling from camp to camp, and everybody was happy during an almost unbroken period of 16 years. During this time several firms realized from legitimate business, amounts from $150,000 to $400,000. The voters' list held some 723 names then; now it is not over 199. The assessable property in the county is $1,800,000, on which a tax of $2.85 is levied. The Judge was Senator in 1857. A. Dowbrowsky has been in business as a jeweler, watch and clock maker since 1857. He is an experienced workman and doing a good business. Being a practical metallurgist and chemist he is always ready to make "the assay." An excellent livery stable is kept here, also one at Redding, by Jno. Craddock. Jacob F. Simons clothes the naked. Mrs. Green's hotel can accommodate 50 guests. E. A. Eames has been successfully engaged in carriage building, blacksmithing and horseshoeing during the past 18 years; he was the first blacksmith in Shasta. Thomas Jefferson Fawcett makes several styles of iron railings for dwellings and cemeteries, in design chaste, and of superior workmanship. His patent handcuffs and leg irons have had a good effect on law breakers and defy their cunning to get them off.

In company with S. Hull, one of your subscribers to the RURAL PRESS, I walked over the court house, through his office and down into the prison. Returning to his office he exhibited the Shasta rogue's gallery of portraits, and the terrible "irons," one pair of which weighed 18 pounds. The court room is 40x50 feet, with ceilings 15 feet high. It is kept in excellent order, but business is dull in this line. Shasta is well prepared to take care of a reasonable number of criminals and make it warm for them.

Yreka.

At Yreka, Vance & Nehrbass have been 15 years in business. They are extensive dealers in hardware and agriculture implements. They are also lineal descendants of Vulcan, and cheery chaps at that. Their work shops are the largest out of Sacramento. They cover in all an area of 9,000 square feet. They have one shop for horse and mule shoeing. The large brick building is used for heavy forging and general blacksmithing; a part is used as a machine shop. One large warehouse is in use for storing and displaying agricultural implements. The Yreka stable keeps 40 horses; Ed. Flitner and Frank Dumas, proprietors.

Shasta river canal is 90 miles long. It starts from the foot of Shasta butte, and runs north to Yreka, carrying 1,000 inches of water. The whole of this water is leased to Chinese, who pay $3,000 annually, and also keep the flume and ditch in repair. This valuable water course is owned by James Quinn. The tradesmen of the town are: F. Range, saddle and harness maker; G. Mahlzar, boot and shoe maker. G. A. Dordheim has made over 100 muzzle loading rifles here since 1860. James Owens is boot and shoe maker.

Etna Mills.

Scott's valley is a valley as is a valley, presenting one unbroken panoramic view of all that constitutes the beautiful for a distance of 25 miles in length, and with a breadth of from five to eight miles. In this valley, this year, they cut 8,000 tons of timothy hay; this hay is in good demand at $10 a ton in the field; of wheat there were 100,000 bushels; oats 150,000 bushels; barley and potatos are not stated. Of corn the yield was "like this:" take a field of 100 acres and she gives up to you 3,000 bushels; bacon 300,000 pounds; butter 100,000 pounds. Etna Mills is at an elevation of 3,280, and the road over Scott mountain is nearly as high as where the U. P. R. R. crosses at Sherman, being 8,000 feet above the tide.

The Rough and Ready mill, of which your old subscriber, George Smith, is proprietor, stands on an area of 2,400 square feet; and is three stories high. This mill is driven with or by a Leffell turbine equal to 30-horse power. They obtain water from Mill creek, and have it rushing along an aqueduct at the rate of 150 inches a day. Twenty barrels of flour are ground per day. The mill runs ten months in the year. The water is used also for irrigation and to drive the works of three other establishments. Among the business men of the place are: J. H. Downey, J. C. Campbell, Martin Marks, H. W. Sullivan, A. H. Denny and Buckner & Kist. The Etna hotel is 90 feet front and 100 feet deep, and two stories high; as many as 50 callers can be taken care of in handsome style.

Fort Jones

Fort Jones takes its name from the old fort built early in the spring of '51. Brown & Kelly drove in a band of cattle and became the first settlers. Their log shanty was the "first house" built here, the remains of which are in a good state of preservation.

The first white woman arrived here in 1852. In 1852 Major Crook was in command from that time till 1858, when the fort was abandoned. The garrison fought the Rogue River Indians and the Modocs, Old John Chief, and the Pit River Indians, Old Lay Lakes, a Cum-tuck-ne chief.

In one of these fights Capt. Alden was wounded and Kirkpatrick, an Irishman, a soldier, a hero, when he heard the captain was "down," rushed through the enemy and found and packed him up a steep hill to a place of safety. The Indian name by which Fort Jones was known till '61 was Ot-ti-e-wa.

Palmer's mill was built '66-'67 and cost $35,000. Annually they grind 1,500,000 lbs. of flour, all of which is raised in Scott valley. This mill pays 2 per cent. a month on the capital invested.

Ashland, Oregon.

When I reached Ashland I had not looked very long before I was in close confab with a fine specimen of a well preserved gentleman whose name is O. Coolidge. He is a most successful florist and orchardist. In front of his tasty cottage he cultivates three-quarters of an acre as a flower garden, the best arranged, best kept and prettiest garden I have yet seen. But that, charming as it is, is little to his orchard. He has 40 to 50 kinds of peaches, some of them 12 to 13 inches in circumference; of apples 60 to 75 kinds, from the Siberian to the Gloria Mundi variety, making 60 to 75 kinds; peaches, 30 kinds; plums, 25 kinds; cherries, 20 kinds; the smallest and largest German prunes. Not to be tedious, let us say, he has nut trees comprising all the walnuts, hickories, American and Spanish chestnuts, filberts, hazel and beech nuts, and every kind of berries, among which is that curious affair known as the white blackberry. Mr. C., speaking from an experience of 14 years, says that the climate of Ashland surpasses any other which he knows of in America. G.

Notes From Madison County, Montana.

EDS. PRESS:—First impressions of Montana, as compared with the State of Nevada, whence last was written, have been rather favorable than otherwise. It is apparently better timbered, and very evidently much better watered. On the way, by stage via Franklin, Idaho, to Virginia City, the county seat of Madison county, and a place of considerable importance as the center of a good mining, grazing and agricultural district, numerous streams of water were crossed, some of them making their way through the Columbia river to the Pacific Ocean, and others, by a detour of several thousand miles, reaching the Atlantic waters by the way of the Missouri and Mississippi. Pleasant valley, the first reached after entering the Territory, as well as those of Beaver Head and Big Hole, are but sparsely populated, and probably much better adapted for stock raising than for farming.

The Stinking Water Valley,

The largest in Madison county, being about 40 miles long and varying from a narrow pass in places to 20 miles in width, may also be set down as one of the most productive. It is a matter of regret that the Indian appellation Passa Mana or Passamare has not generally been retained as far less disagreeably suggestive. It is surely more musical, and meaning, as interpreted by an intelligent lady of the valley, "beautiful water," it is certainly much more appropriate and significant, as the beautiful stream from which the valley derives its name is as clear as crystal, and as pure as the snows on the adjacent mountains, from which an almost inexhaustible supply of water is kept up for mining and irrigation.

The upper portion is devoted principally to stock raising, the most important interest in the Territory outside of mining, although even in this part of the valley some attention is paid to grain and vegetables.

Ranches.

There is at least one large ranch, with 2,000 acres under fence—the property of Messrs. Sedman, McGregory and Snapp—where most cereals are produced, some years in great abundance, about 3,000 bushels of oats and barley being harvested the past season, the wheat falling a prey to the great pest of the country—the grasshopper. It is well stocked with hogs, horses and cattle. Noticeable among the blooded stock were some fine hogs of the Berkshire breed, and about 30 head of thoroughbred Durham cattle, including graded making a total of over 130 head. The market of Virginia City is said to be mainly supplied from their dairy, which is one of the largest in the county and Territory.

Immediately below the Puller hot springs, somewhat celebrated for their medicinal virtues, Mr. Metzel has also about 25 head of full-blooded cattle, some 1,200 in all, and about 100 horses.

Mr. Callaway, Secretary of the Territory, has also a large amount of stock, and has given considerable attention to its improvement. So that, taking the herds named, in connection with other smaller bands, there are in a range of some 18 miles in length in the neighborhood of from 8,000 to 10,000 head of different kinds of stock.

Mr. Price, under whose hospitable roof a night was pleasantly passed, on the upper waters of the Jefferson, together with many others throughout the county, is pretty extensively engaged in stock-raising. He has about 800 head of cattle in addition to other stock, with about 60 head, chiefly of young thorough-bred Short Horns from Kentucky. Butter and cheese of his own manufacture, and of as fine a quality as ever graced a table, were met with here. Probably a sufficient amount of both are produced in the Territory to more than supply the home market. If I am correctly informed, considerable butter has been exported.

Before dismissing this subject it may not be out of place to allude to the interest that has recently been waked up on the subject of

Horse Training

By the instructions of Prof. B. J. Wright, teacher of handling, taming and educating wild and vicious horses, who is at present making the rounds of the Territory. Having been invited at Virginia City and at one or two other points to listen to his lecturing and witness his feats, I was more than pleased with the information imparted to his classes, and the skill and success displayed in his method of training. It is far less brutal than that ordinary resorted to; in fact, it is in no sense brutal, but wholly in accordance with our advanced modern ideas, and seems to be giving, wherever he goes, entire satisfaction.

The Hay

Of the valley is chiefly from a fine natural grass of good quality and yielding usually about a ton to the acre. The stock subsists in summer and frequently through almost the whole of winter on a species of bunch grass growing in the mountains.

In the lower portion of the valley much more attention is turned to

Grain and Vegetables.

The soil is excellent, and but for the grasshoppers would be an exceedingly productive region. Some have had fine crops while others have not had grain enough left for seed. An average crop of wheat and barley may be set down at from 25 to 30 bushels, the average for oats running higher. One gentleman informed me that he sowed oats as late as the 25th of June last, and thought his crop would reach 70 bushels to the acre. Mr. Van Brocklin, a large farmer, has raised as high as 100 bushels. From 40 to 50 bushels of wheat and barley is not an unusual crop. Mr. Hall, near Salisbury, has had probably the largest yield of wheat for the season, although the average per acre is not so large as some others. His place is situated a little back from the river, on a tract of somewhat elevated bench land, that produces wheat of the very finest quality. From 200 to 400 bushels of potatoes to the acre is not an uncommon yield, the varieties mostly sowed being the Early Rose, Early Goodrich, Prince Albert and the Neshannock.

Mr. Lot, of Twin Bridges, produces vegetables of all kinds, with the exception, perhaps, of tomatoes and cucumbers, all of which grow luxuriantly, and frequently to a great size. Having had an order for 300 pounds of ruta baga turnips, it only required 40 from his garden to fill the bill.

Fruits

In the valley have thus far proved almost an entire failure, a few apples having been heard of, and occasionally some of the smaller varieties of fruits, such as strawberries and currants.

Mr. Combs, near Laurin, in addition to a good crop of all kinds of grain, succeeded well the past season with currants. In the absence of the cultivated fruits a resort is made to the wild gooseberries, buffalo berries and other small wild varieties, some of which make excellent jam, jellies and preserves.

The Grasshoppers

Are the great pest of this country. They come in swarms in July and August, sufficiently thick sometimes to darken the earth with their shadow, devouring almost every green thing, with the exception of potatoes and peas, not being very fond of either. Their eggs are deposited to the number of from 25 to 35 for every female, to be hatched out the following season to commence the work of destruction as soon as they begin to crawl. Almost every method imaginable has been resorted to, to prevent their devastating inroads, with only partial success. Mr. Combs irrigated his ground last fall, and escaped their desolating effects. This may not have been the cause, as others who have pursued a similar course were not so fortunate. Streams of water or ditches surrounding a farm have been found great aids to their destruction, or as a preventive to the inroads of the young brood.

Some have driven them away by taking hold of the ends of a long rope and dragging the tops of the standing grain, by this means frightening them away. As no eggs have been deposited this year there is no danger of disturbance from the young grasshoppers, and consequently preparations are being made for a large sowing next season, and a splendid crop may be anticipated, particularly of barley and oats, as the flying grasshopper, if it should make its appearance, is not so destructive of these as of wheat. A. C. K.

BEES.

Facts About Bee-Keeping in California

J. W. Sallee gives the Anaheim *Gazette* the following information: The best time for a beginner to go into the bee business, probably, is in the fall or winter; at any rate, previous to the first of March, as then the swarming season begins. Bees can be bought cheaper in September or October. The price now is from $5 to $6 per hive in Longstrath hives, and from $2.50 to $4 in box hives. The Longstrath hive is used almost exclusively—size, 12x18x10 deep, loose bottom and top; bottom with a clamp two inches wide, nailed on under side at each end, which is all the stand needed; top clamped same way to prevent warping. If the beginner purchases bees in the fall he has some time to put his ranch in good order as well as to post himself up well by reading and visiting other apiaries. Bee ranches are getting quite scarce now on Government lands, as many have gone into the business within the past year. One year ago there were only four bee ranches in the Santiago canyon and its branches; now there are 17. Yet there are localities good for bees to be had by a little trouble in making a road—say two weeks' work. These localities are about 20 miles from railroad or post-office. My ranch is 10 miles from Tustin City over the trail, or 15 miles around by wagon road. The canyon road is very good indeed until you leave the main canyon. Up the small canyon it is very rough. To secure a small canyon it is but little trouble to fence across the mouth and thereby secure a fine pasture for your horses and milch cows. Not many of these small canyons have running water, unless you go some distance up into the mountains, but there are many springs, and water can almost invariably be had by digging. In my locality we have quite a neighborhood, though not quite enough for a school. In the next neighborhood south of me, they are about to form a school district. We will have one in a few years. Building material costs $30 per thousand, clear stuff for bee hives $45 per thousand, hauling 20 miles. Redwood is used, and it is the best hive material I have ever seen.

I should have said that there are ranches already taken up which can be bought; ranches with 10 to 20 acres good land can be bought for $400 or $500. There are many good localities for bees on the large grants which cover all the first range of hills, and sometimes extend quite up into the mountains. These grants—the pest of this whole country—are the cause of the bee ranches being so far from the railroad. The grant lands are the foothills, and are hardly worth buying to settle in small tracts, yet they make good sheep pasture. As to the annual profit per hive, I will give the experience of those handling large lots of bees. Smaller lots of course yield larger profit. The safe calculation is 100 per cent. increase and 100 pounds honey, taken with the extractor, or 60 pounds comb honey. If no increase is wanted, 175 pounds extracted or 90 pounds comb; if increase alone is aimed at, say about 300 per cent.

I think the extracted honey most profitable, owing particularly to the risk of shipping the box honey. But, of course, where only very large apiaries are handled, and where a man raises honey enough to justify him paying his personal attention to shipping—I mean going with the honey himself and hiring his own men to handle it—the box honey is the most profitable. The present market is very bad indeed; in fact, I consider that we have no market as yet for our honey; and not until there is a regular market with the East, or, better still, with Europe, do I think we will have a market for our honey. I also think the main reason for this lack of market is owing to the fact that there is not enough honey produced to justify it, just as the wheat market was originally in this State. The present prices are about six cents for extracted and ten cents for comb, clear of freight.

The Garden.

Make a Garden.

Our object is to show our farmers—and even residents of towns who have but a rod of ground—how to provide themselves with many of the delicacies and necessaries of life, which they now pay dearly for or go without.

Small pieces of ground may be made to bear six or more crops per annum in this country, where water is available, and, where it cannot be had continually, at least two crops may be had during the season. It is, perhaps, needless to say that, in order to obtain good results during our cool wet spring, the ground must be well cultivated and enriched by manure. Such vegetables as turnips, cabbage, beets, lettuce and radishes must grow quickly, or they will become corky, stringy, hollow and bitter, or go to seed, instead of making edible vegetables.

For a small family, say of six, three beds of 4x20 feet each will furnish an abundance of radishes, beets and turnips, if they are planted at intervals of two weeks. The seeds should be planted in rows six inches apart, every other row being radishes, which, maturing quickly and being pulled, make room for the beets and turnips. As soon as the latter are large enough they are used and the ground is in readiness for another crop. Three beds of the same size as before would answer for cabbages to have lettuce and onion sets planted between, about six inches apart to allow room for a small hoe. For those who like the *mazagan* or horse-bean might be put as a center row with beets and turnips.

Peas are so slow to grow that 'tis generally a loss of labor to plant them until time for later vegetables; besides, in small gardens their room can be more profitably used.

If the product of a bed is not used by the time it is fully ripe, clear it off and feed to cows and pigs; then work the ground over and put in more seed. It is this process of letting no useless thing cumber the ground that enables men to sell $3,000 worth of produce from a single acre in the neighborhood of the Eastern cities.

Farmers renting land seldom care to improve it, but the small portion mentioned, if increased ten-fold, would be but the ninth of an acre, and would pay far better than other portion.

To those who are permanently located a much larger piece would be proportionably more profitable, and, in future articles, we will endeavor to suggest its better use.—*H, in Salinas Index.*

Sheep and Wool.

A Cleaning Process for Wool.

The *British Trade Journal* describes a process for treating wool by which the seeds, burrs and other foreign matters entangled in wool are removed:

The process, it appears, consists in saturating the wool to be treated with very dilute sulphuric acid, the greater part of which is afterwards removed by means of a whizzer, or hydro-extractor. The wool is then spread on a dry-house floor, heated to a high temperature, to concentrate the acid by evaporating the water with which it has been diluted. The acid, having a great affinity for water, and not being able to get any from the hot air around it, attacks the wool, and the vegetable matter which is mixed with or entangled with it, in order to obtain the water which is one of their component parts. It extracts the water first from the vegetable matter, leaving little else but carbon, which crumbles into dust when the wool is afterwards willeyed and scribbled. But in extracting the water from the vegetable matter, part of the acid is decomposed, and that which is left is not sufficient in quantity to damage the wool to any appreciable extent.

It is commonly supposed by those who have had any experience of this process that it impairs the felting or milling property of the wool, and also makes it rather tender.

It is well known that the property of milling or felting, peculiar as it is to wool and certain kinds of hair, is owing to the fact that the exterior of the fiber is composed of very minute scales, which, when two or more fibers are rubbed or twisted together, interlock, and so hold to each other. The question then is, are these scales in any way injured or destroyed in the process of extracting? Conceiving that this question could to a great extent be determined by the microscope, the correspondent of a contemporary made experiments with three of the principal growths of wool, and he thus explains his mode of procedure:

"Having procured samples of Sydney, Port Philip and Cape wools, I divided each into two parts; one of these I put on one side, the other I proceeded to treat as follows: I first washed it in an alkaline lye composed of urine, soda ash and warm water, and afterwards rinsed it thoroughly in clean cold water to move the grease or yolk and any other fatty matters; then I saturated it with dilute sulphuric acid of the strength used in extracting, and having squeezed out as much of the acid as possible I placed the wool on the dry-house floor. As soon as it was thoroughly dry I washed it again in the alkaline lye, rinsed and dried it as before. Then I took the other parts of the samples and washed them with ether, as fibers of each kind on microscopic slides in 'Dean's Medium,' and put them aside to dry and set. When set I examined them under one-fourth inch objective, and that I might be better able to compare them, I made careful drawings of them with the camera lucida.

"I may remark in passing that the specimens of Sydney wool, as was to be expected from their superior milling property, showed more scales and more distinctly marked than either the Port Philip or Cape wools; next in order of distinctness and number of scales came the Cape wool, and last, the Port Philip.

"Comparing each pair of specimens, separately, with regard to any supposed difference produced by the extracting, I found none whatever; the scales were as numerous and distinct on the extracted specimens as on those which had not been extracted; indeed, but for the labels it would have been impossible to say which specimens had been extracted and which had not. Now, if the scales are not injured, I think we are justified in concluding that the milling property of the wool is not impaired. Further, the scales form the exterior of the fiber, and if they are not injured it is reasonable to suppose that the inner part of it has not suffered from the process. Of course I speak of the results obtained when the operation is properly conducted, for if, for example, it is not thoroughly whizzed, to remove all superfluous acid before drying, for if it is overdried, it is sure to be a little tender, and to feel harsh and brittle. But with sufficient care this ought not to happen, and if the principle of the process is understood, and the practical working of it carefully managed, there will be no reason to fear any damage to the wool."

Floriculture.

Hints for the Season.

The *California Horticulturist* says: Roses should be pruned pretty closely. Deciduous shrubs, such as lilacs, snowballs, mock oranges, spiræas, etc., must be trimmed with care. Ignorant gardeners frequently cut away the wood which should produce the flowers, and we have frequently heard the complaint that some of the above named shrubs have not produced any flowers for a long time; and that the owners were determined to throw them away on that account. When we explained matters to them, and a more sensible mode of treatment was adopted, an abundant season of flowers generally followed.

Dahlias and gladiolus may be taken up and stored, after exposing the roots to the sun for a day or two, in a dry, airy place. Hyacinths may also be taken up and kept out of the ground for a few weeks, or until the time comes for transplanting. Tulips, narcissus, lilies, peonies and snowdrops should remain in the ground undisturbed, but the earth surrounding them should be spaded or trenched carefully so as not to injure the bulbs, and they should have a good manuring or top dressing. Violets, pinks, and other herbaceous plants should receive some manure, and the soil should be worked carefully around them.

Greenhouses and conservatories must have a thorough overhauling, and care must be taken that the glass roofs are made tight. When artificial heat is not applied during winter it is advisable to water sparingly, and to give a great deal of fresh air. This will prevent too much growth of tender shoots, which are apt to perish during our cloudy and chilly winter days. This is particularly the case with all tender ornamental foliage plants, such as coleus, marantas, begonias, etc.

Very little attention has, so far, been paid here to the proper heating of greenhouses. Although artificial heat is not required for heliotropes, geraniums, camellias, etc., yet it is certain that the more tender warm-house plants, including the very desirable, tender, ornamental foliage plants, must receive artificial heat if they are expected to vegetate luxuriantly. If kept dry and in small pots most of the so-called warm-house plants may be wintered without actual loss, yet we frequently hear of total losses of coleus, clerodendron, variegated dracænas, marantas, and the like. We certainly do not require such formidable heating appliances as are necessary in the East and in Europe, but it is very desirable that this matter should be properly discussed among our professional men as well as amateurs. Flowering bulbs are now in market. To those who are fond of hyacinths and narcissus in bloom at Christmas time we would give a kindly advice to purchase a few bulbs, and to plant them without delay in pots or boxes for the window. They are cheap—every one can afford to have a few; they are of easy culture and give general satisfaction and pleasure.

On a New Method of Detecting Artificial Coloration in Wines.—By M. Lamattina.—In order to recognize artificial coloring in wine, the simplest process is to mix 3½ fluid ounces of wine with half an ounce of peroxide of manganese, coarsely pulverized, and to shake the mixture for ten or fifteen minutes, afterwards filtering through a double filter. If the wine is pure, it passes colorless; if colored artificially it keeps its color. When pure peroxide of manganese is employed, this process is applicable to all coloring substances artificially introduced, even fuchsin. When, however, the wine after filtration appears yellowish, it is because the oxide employed contains iron. In such cases it is necessary to use alcohol, acetic acid and ammonia in order to determine the presence of fuchsin.

Poultry Yard.

M. Eyre, Jr., Napa, Cal., Corresponding Editor of this Department.

Farmers and Poultry.

The farmers of some sections devote nearly their whole land, time, and attention to the culture of wheat, and if this crop fails their whole income for the year is gone. It would be far better for them to have more sources from which an income might be derived, and in this connection we commend to their attention the breeding of poultry. Sufficient poultry might be kept on every farm, without interfering with other crops, to produce an annual income of from $500 to $800, and a majority of farmer's families could live comfortably on this sum if all other crops should fail.

But in order to realize such an income from poultry, several things are necessary, and many improvements must be made on the method of keeping usually in practice among farmers.

1. Improve your stock; get some pure-bred variety if you can afford it; if not, get a pure-bred cock or two to put with your common fowls; either Leghorn, or some variety of Asiatics, will be found to improve a common flock of poultry wonderfully in a few seasons; but we would advise getting a pure breed as soon as possible.

2. Give them better care than farmer's fowls usually receive; do not allow them to roost on any pole they can find in a shed or other out building, or to crawl under the barn for protection from the winter's cold; but give them a good warm house of their own, as comfortable at least as you would give your horses, and they will repay you with a supply of eggs all winter, when they are 50 cents or more per dozen; but a comfortable house is not the only necessity; give them good food, not too much corn, which is frequently the case with farm poultry, but give them wheat-screenings, oats, barley, etc., with an occasional feed of corn in winter; if oats and barley are fed they should be first soaked, or there will be danger of the birds getting them stuck in their throats; some animal food should also be provided for them; if an animal is killed for family use save all the refuse pieces in a barrel or box, and feed it to your poultry; but if you do not kill any animal yourself, take a box or barrel to the nearest butcher and get him to fill it with livers, lungs, etc., for which you will have to pay him but a trifling sum, and it will be returned to you at a ten-fold ratio.

3 Prepare suitable places for your fowls to drink, nothing being more injurious and unhealthy for fowls than to be obliged to drink impure water, and especially such as stands in pools around the barnyard after a shower.

4. Keep their quarters clean. Nothing is more important than this; many a farmer who thinks it imperatively necessary that the horse stable should be cleaned out every day, does not think of cleaning out the poultry house once in six months; once a week at least the poultry house should be cleaned, and ashes or dry dirt sprinkled around under the perches: an occasional coat of whitewash over the inside of the house and the perches will be very beneficial during the summer in destroying vermin.

5. Use the cheap houses (described in the Rural Press of Jan. 29th, 1876), and keep but 20 to 25 in each house.

6. Keep free of lice by the use of carbolic powder.

If the foregoing rules are observed there is no reason why every farmer may not add several hundred dollars to his income annually.

It is but little trouble to take care of fowls thus, when the conveniences mentioned have once been provided, and if they are so cared for the profits derived from them will be increased a hundred fold; and the fact that they do not receive such care, as a general thing, will account for the expression frequently used among farmers, that "It don't pay to keep poultry." There is nothing that will pay if it is not well cared for, and there is nothing that can be raised on the farm will pay as well as poultry, if it is well taken care of.—*Selected.*

Three Cents a Week.

In answer to "Economy," who wants to know how much a fowl will cost annually to feed, we say, in round numbers, two and a half to three cents a week. In summer, not so much; in winter, a little more.

This is calculating corn at a dollar to a dollar and a quarter per bushel—the standard food. With boiled vegetables half the time (mixed with meal and shorts) the expense will average about the same.

A good laying hen will give 100 to 150 eggs in a year, say ten dozen, which at 30 cents average, will net $3. This will pay a good profit over cost of keeping in moderate numbers. When eggs average 25 or 20 or 15 cents per dozen, wheat and corn are proportionally cheaper. If only two or three dozen fowls are kept on a place, the scraps from the family table will go a good way towards helping out the feed of the poultry. But from $1 to $2 (according to locality) per year, each, will fully pay the cost of food, if it is all purchased at ordinary market prices.—*Ex.*

Horticulture.

Decay of Fruits.

This subject has been investigated by Dr. Drefeld, in Germany, and we find in foreign exchanges a report of the results he has obtained, a concise summary of which is made by the *Journal of Chemistry.*

Starting with the well known fact that a rotten apple will affect a sound one in contact with it, and assuming that there must be some agency producing the infection, he sought to ascertain what that agency is. In his investigations he examined rotten fruits of various kinds from widely different localities and at different seasons of the year. He found that the tissues were invariably exhausted and withered, the cells had lost their turgidity, the contents were contracted, and the cell-sap dispersed in the inter-cellular spaces. In most cases the entire mass of cells was permeated in all directions by the spawn of fungi, but the threads were merely interlaced among the cells, never piercing the cells themselves. The fungi were very common molds of two distinct kinds: one with broad, dense tubes without partitions, the other with narrower, frequently separate tubes, both being very much branched. The former consisted mainly of *Mucor stolonifer*, more rarely of *M. racemosus*, and the latter of *Botrytis Cinerea* and *Penicillium glaucum*. There seems to be no doubt that these parasites are nourished by the cell-sap, which has escaped into the inter-cellular spaces.

To determine whether these fungi are the cause of decay, experiments were undertaken with the pure fungus and perfectly sound fruit. Spores were thickly sprinkled over sound fruit, and, to make the experiment more conclusive, the spores were conveyed to the fruit in water, and the fruit afterwards placed under a bell-glass in a moist atmosphere. As might have been expected, the fruit remained sound, the spores failing to germinate altogether, or germinating only very sparingly. In the absence of a nourishing fluid, they possessed no power of attacking the tissues of the fruit.

In a second series of experiments the spores were dipped in a nourishing solution of fruit pulp, in which they could germinate and form a mycelium, and this was laid on sound fruit with a pencil. Soon some of the fruit began to show here and there symptoms of decay, spreading with varying degrees of rapidity over the whole fruit. It was easy to see that the penetrating fungus was actually the cause of the decay. Another set of experiments proved this more fully. Some sound apples were artificially wounded, and infected with the spores, which grew and spread in the same manner. Other sound, bruised, but not infected apples, showed no symptoms of decay. It was found that the more unripe the fruit, and the denser its tissue, the less power the fungus has of taking possession of it; but with the increase of saccharine matter, and the decrease of acids, the fruit becomes more susceptible. Unripe fruit artificially infected with fungus did not decay, as the fungus did not find suitable food. Of the fungi named above, it was found that *Mucor stolonifer* had by far the most rapid growth. Pears infected with this fungus become thoroughly decomposed in a few days, and no outward trace of it is usually discernable before the whole interior is destroyed.

The decay of fruit is not always due to fungi, for many pears exhibit a kind of spontaneous decay, though no fungus is present. Otherwise the decomposition of the tissue proceeds in exactly the same manner in both cases.

French Prunes.

Mr. Alexis Godillot, a noted importer of prunes into New York, gives the *American Grocer* some interesting account of their growth and preparation. The prunes which he imports are produced in the province of Lot-et-Garonne. The trees are planted, he says, 20 to 50 feet apart, so as to be exposed to the action of the sun from all quarters; they are planted either in vineyards or in fields, and they do not in the least injure other crops growing under their slender branches. The present crop will be of unusually good quality, the continuous drouth having given to the fruit a higher degree of sugar than usual; for the same reason large fruit will not be so abundant as small. I paid my last visit to the prune country August 15th. Some new fruit had already made its appearance on the markets of Agen, Villeneuve, Clairac, Tonneins Marmande and Miramont. The operation of gathering the prunes is very simple. The ground around the trunk of the tree and extending to the outer circle of the branches is worked fine so as to make it as soft as possible, a bed of straw is laid over it, then the tree is shaken until every prune is on the ground, and the fruit is then transported to the ovens, where it receives several bakings, until every vestage of dampness or crudity has disappeared. This preparation gone through, the prunes are packed in hogshead holding 100 kilogs. and carried to some of the markets named above, and sold per 50 kilogs., under the name of "Rame," which is applied to the fruit when all sizes are mixed together. The prunes are bought by packers, who assort the different sizes, and put them in boxes as we see them in this market, and according to size mark them "Imperiales," "Gros Choix," "Demi Choix," and "Rame superieure."—*Foothill Tidings.*

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. WEBSTER; Secretary, AMOS ADAMS.

The Grangers' Business Association of California is in Davis street, north-east corner of California.

Grangers' Business Association of California—Notice of Assessment.

Principal place of business and Secretary's office, Grangers' Building, northeast corner of California and Davis streets, San Francisco, Cal.

Notice is hereby given, that at a meeting of the directors of the Grangers' Business Association of California, held on the 31st day of October, 1876, an assessment of two and one-half dollars ($2.50) per share was levied upon the capital stock of the said corporation, payable in gold coin of the United States, to the Secretary, Amos Adams, at his office, No. 40 California street, San Francisco, Cal., on the 10th day of November, 1876.

Any stock upon which this assessment shall remain unpaid on the 30th day of December, 1876, will be delinquent, and advertised for sale at public auction, and unless payment is made before, will be sold on the 17th day of January, 1877, to pay the delinquent assessment, together with the costs of advertising and expenses of sale. AMOS ADAMS,

Secretary of the Grangers' Business Association of California; Office in Grangers' Building, 40 California street, San Francisco, Cal.

GRANGE DIRECTORY.—A full list of Subordinate Granges, Masters and Secretaries, of California and Nevada, is published as often as once a quarter in this department. See issue of Sept. 23d for latest insertion

P. OF H.—Subscribers who pay fully one year ($4) in advance for the PACIFIC RURAL PRESS can receive the CALIFORNIA PATRON *free*, or other premiums. See our premium list in another column.

The Worthy Lecturer's Visits.

EDITORS PRESS:—Promising you brief sketches of my work as I pass from one Subordinate Grange to another, I take pleasure in noting for your very valuable farmers' and Grangers' paper, briefly, what may interest them. I met at Watsonville on Saturday, October 21st, the two Granges of that city, viz., the Watsonville and Pajaro Granges, Bro. Cox, of the Watsonville Grange, presiding. There was a large attendance of both Patrons and Matrons. My address was more a plain talk on practical matters connected with the Order than a set speech. The discourse advocated adapting means to ends, becoming a working hive and taking at once the initiatory step toward the accomplishment of our great Grange work, through our Grange Business Association in San Francisco as our great agency for all our sales of products, and for all our purchases needed for our varied wants. We had every point of the Grangers' work thoroughly ventilated, both financially, agriculturally, socially and intellectually, and a genuine time of revival was the result; no going backward with these two Granges, but a determined resolution to press forward to the accomplishment of our great Grange undertakings.

On Saturday, November 11th, I met at Hollister the Hollister Grange, which had called an open meeting to greet me, inviting the farmers around to join them in their social feast and to listen to my address. We met at 10 A. M., and after a most plentiful and sumptuous lunch the tables were cleared and the meeting called to order by Bro. Pomeroy, the Master of Hollister Grange, assisted by his able Overseer, Bro. Nason, and the other very efficient officers of his Grange. All went on like clock work for order and exactness—interspersed, as the exercises were, by delightful music from the Grange choir, led by Sister Pomeroy, than whom there is no one better suited to her position as a real working bee in the Grange hive. Here again, instead of my set speech, I felt called upon to be very practical, in ventilating the duties of Grangers and farmers with reference to the position to be attained by the agriculturist, both in a financial, agricultural, social, intellectual and citizen point of view, running through the history of the past of our Order for the purpose of making use of our experience for the future, in planting our flag where it truly belongs, that higher standard of the farmer and producer, where he can, as he ought to, reasonably control the price of breadstuffs. So that instead of capital or gold being king, breadstuffs shall dictate the market value, held and controlled by the producers thereof.

So much in earnest was our meeting that to get through all our work we found it 4 P. M. before our worthy and efficient executive officer's gavel closed our meeting. How I wish there were a dozen or more State Lecturers in the field with means for every Grange in the State to be visited and waked up to this their great work.

At Santa Clara.

As per announcement in the PRESS I met the Santa Clara and San Jose Granges in the hall of the Santa Clara Grange, (in open meeting) on Saturday the 18th inst., to which meeting not only Grangers but farmers not Grangers, and all others interested were invited to attend. The day being favorable and the notice general, the hall was crowded with Patrons and Matrons from both Granges by 10 o'clock A. M., and the meeting called to order at once by Bro. Wilcox, Master of Santa Clara Grange, who as presiding and executive officer has few superiors. After stirring and harmonizing vocal and instrumental music from the Grange choirs, I was most happily introduced in my official capacity, to become the object of their attention for an hour or more as their exponent of Grange principles, Grange objects and the great Grange future work. I was listened to for one and a half hours with rapt attention, and with such warm responses that had time allowed I should have felt justified in prolonging my address one hour longer, and for the benefit of other Granges I here give you the heads of the subjects treated.

1. The past history and experience of the Grange movement.

2. The new issues the Grange was called upon to meet.

3. A new Grange education, involving all the duties, socially, politically and financially, of the Patrons and Matrons of Husbandry.

4. Grange work from this time forward to be both thorough and practical.

5. While Grangers are to be in no way partisan, they are to ventilate the financial question as one of the greatest importance to the American citizen.

6. The true sphere of woman in the Grange work.

7. What the Grange Agencies in San Francisco, to wit: the Business Association, the Grangers' Bank and the Grangers' Insurance Co., are and can do for the Grange movement if patronized liberally and with implicit confidence.

8. Our Grange organs, the CALIFORNIA PATRON and RURAL PRESS, must be supported by every Granger, both by subscription and communication.

9. The Grange future work to lead to the practical adoption of the best system of co-operation and to unite all other industrial unions in sympathy with the great Grange movement to, in some effective way, unite with us.

10. The ultimatum of the Grange movement, the solution of that great problem, capital and labor.

My address was followed by most cheering and appropriate music, when invitations were given by the presiding officer to any one to make remarks upon the objects sought to be accomplished by the Grange organization. A full hour or more was spent in this way, when the open meeting was dismissed and a closed meeting of committees from both Granges present, called for conference on joint Grange work.

At Gilroy.

On the day previous, Friday the 17th inst., I stopped over at Gilroy and there addressed the Gilroy Grange, Bro. Wentz, the Master of the Gilroy Grange, presiding. There being no regular notice of my coming, the meeting was small, but not the less interesting and I hope profitable. I spent Saturday night with Bro. Wilcox and family, about two miles out from Santa Clara. He is beautifully and most comfortably located and engaged in raising strawberries, currants and other small fruit for the San Francisco market, and a more desirable location could not be desired, irrigated, as it is, by two artesian wells supplying abundance of water on land naturally very rich, but made greatly more so by overflow. Our evening conference was truly a feast of good things and we are, I hope, made better and stronger for the work before us. Tell the Grangers to take courage; our work is in the ascent, all are not dead nor sleeping, but resolved on the accomplishment of the great Grange work.

BLAKEY PILKINGTON, W. L.

Santa Cruz, Nov. 20th.

Speaking Ill of a Brother.

J. W. A. Wright writes to the St. Louis *Rural World* as follows: Our ritual teaches us, with beautiful lessons, that entire confidence should prevail in our large circle of brothers. Our declaration of purposes says "we shall constantly strive to secure entire harmony, good will, vital brotherhood among ourselves." Are we all thus striving? If not, we fail in our duty. It next asserts, as an indispensable means of securing such harmony, "we shall earnestly endeavor to suppress personal, social, sectional and national prejudices, all unhealthy rivalry, all selfish ambition." Are we all really so endeavoring? If not, we fail in our duty.

We all solemnly swear to aid our fellow Patrons, within certain reasonable limits. If we ever do or say or write anything to injure any member of any Grange, in good name or estate, or thwart him in any good work he tries to do, how can we reconcile this with our promise to aid? It cannot be reconciled. We violate our sacred obligations in so doing. Each individual of our vast membership cannot too carefully ponder these things, and should constantly make an honest effort to live up to our precepts on these points, which are in danger of being lightly esteemed.

But how especially incumbent on our leading men to observe these things—men who have been vested with a little brief authority to guard and advance our interests; who have long been prominent among us, and who can rightfully be expected to best exemplify our principles. In all their personal dealings with each other, in their official or fraternal capacity, how guarded should they be against the cropping out of personal prejudices, resentments, piques, enmity, towards all who are united with them in the bonds of a vital fraternity.

Nothing is more horrible, more repulsive, more grating to our sense of propriety, than to know that any member of the Grange, however high or humble his station, does not scruple to spook, both to members and outsiders, not only disparagingly but disgracefully of another member—trying to poison the minds of others against him, trying to make them believe his brother is a dishonest and bad man. Where is his charity? Where is the aid he has solemnly pledged? Where is his manly honor?

What is the clear line of duty in such cases? 1. Kindly reprove such maligning brother. 2. Let him know that either he should in due form prefer charges against the one of whom he speaks so hard, or keep silent. 3. If he does not keep silent, remind him that he is justly liable to have charges preferred against him, for conduct unbecoming a Patron and injurious to the Grange cause.

When will some of our brethren learn that our brotherhood was formed for mutual help, not for mutual injury; to combine for the benefit of all farmers, all our members, and for self protection—but not to seek self protection by industriously picking flaws in the characters of our brothers? When will we learn that the Grange did not combine a set of angels any more than has any other noble institution—human or divine; and that as we need charity for our own weakness, so should we practice it towards what we esteem the defects of others?

Grange Statistics.

These figures may not be very new, but they are interesting, nevertheless, and contain quite a history in themselves. The Order contained last November 24 290 Subordinate Granges, or lodges, having 761 263 members "square in the books," and a total membership of 900,000; the revenue of the National Grange, or central body for 1874 (the last complete year), was $216,381.02; the initiation fees paid into the treasuries of the Subordinate Granges have exceeded $2,750,000, and the annual income of these and the State Grange (some of which bodies have sums in excess of $20,000 in their offices), is in excess of $1,600,000. The Grange has some 20 State purchasing agencies at least, 3 of which do an annual business of $200,000. During the past year it has had in active operation 5 Grange banking associations, 1 of which (at San Francisco), has a capital of $5,000,000, of which $500,000 was paid in; 5 steamboats or packet lines; 30 manufacturing associations, whose capital ranges from $200,000 to $500,000; 50 associations for shipping goods and shipping purposes; 32 grain elevators; 16 grist-mills, 1 of which produces 100 barrels of flour per day; 22 warehouses for storing goods; 3 tanneries and 6 smitheries. These are distinctly Grange enterprises, started with capital contributed by members of the Order, managed by them and producing for their benefit. In addition there has been established 160 Grange stores to furnish members with supplies at wholesale prices, plus freight and handling—the customers who are stockholders dividing the profits. The Order has dedicated 144 halls, built or bought to serve as places of meeting, 1 of which cost $10,000, and those who visit the Centennial will find there a grand encampment of mammoth proportions, built by Patrons of Husbandry to accommodate visitors of their Order desiring meals and lodging at economical prices.—*Southern Farmer.*

A FRENCH PATRON.—The *Hoosier Patron* says: "At one of the Grange meetings held at the Patrons' encampment near Philadelphia, Bro. Whitcher, of the New Jersey State Grange, reported the very pleasing fact that he had just initiated a French gentlemen into the mysteries of the Grange. This gentleman came to our Centennial exposition as a representative of the agricultural classes of France. He became interested in the Order of Patrons of Husbandry, posted himself thoroughly regarding its purposes, and is now appointed by the Master of the National Grange as Deputy to France. Bro. Whitcher regarded him as a man who would labor to build up the Order in his country, and render his efforts successful."

THE NATIONAL GRANGE.—A dispatch from Chicago to the daily papers notes the following: The tenth annual session of the National Grange of the Patrons of Husbandry commenced Nov. 14th, John T. Jones, of Arkansas, in the chair. Delegates were present from nearly every State and Territory in the Union, many ladies being among them. Master Jones delivered the annual address, in the course of which he favored the grand scheme of an international co-operative movement, by which workmen and laborers of all countries can combine and furnish their several products to each other.

REPORT OF STATE GRANGE.—We are indebted to Secretary Adams for the published proceedings of the late meeting of the State Grange. They occupy a pamphlet of 41 pages, neatly printed and covered. These pamphlets have been issued to each of the Subordinate Granges, and appearing thus early will enable the work of the State Grange to come before the Subordinate Granges much sooner than usual.

THE *Farmers' Union* says: "In spite of the prediction of its enemies, the Subordinate Granges of Minnesota are, as a whole, in better condition to-day than they were a year ago. The Secretary's book shows that up to date, the amount of dues received is greater by $1,000 than last year at the same time.

In Memoriam.

At the late session of the California State Grange, Sister Mary E. Ivins, of San Luis Obispo, offered the following preamble and resolution, as a tribute to the memory of the sisters named therein:

WHEREAS, The scythe of time has cut off from further appearing among us in this our material field of labor, Sisters Mary L. Stocton, of Los Banos Grange; Elnora H. Brown, of Pilot Hill Grange; and H. F. Taft, of Nicasio Grange, all fifth degree members,

Resolved, That in this separation, by the call of our Divine Master to a higher field of labor, these beloved sisters (which to them is infinite gain), the State Grange has lost three cherished and valuable members; the Granges to which they severally belonged, active, efficient and most worthy co-laborers, in which sad bereavement the respective families and Granges to which these loved sisters belonged, have our deeply felt and sincere sympathy.

Resolved, That a memorial page of the proceedings of the State Grange be devoted to this preamble and resolution, and that the RURAL PRESS and CALIFORNIA PATRON be requested to publish the same, and that our Worthy Secretary send a copy of the same to the respective families and Granges to which these cherished sisters belonged.

On the motion to adopt, Bro. T. H. Merry spoke as follows:

Memorial Address of Bro. T. H. Merry.

Worthy Masters, Sisters and Brothers, Members of the California State Grange:—Since last we met here, one year ago, death has invaded our sacred precincts, ruthlessly laid its heavy hand upon us, and taken from our midst and from the charmed circle of their loving homes three of our worthy sisters, members of the State Grange, and now we are called upon to pay a tribute of respect to their memories.

What words can I utter that would express our feelings of deep sorrow for the affliction which has fallen upon us, and how meaningless are words alone to extol their virtues or praise their worth. If an honest man is, as we are taught by our beautiful ritual, "the noblest work of God," how noble, how beautiful, how perfect a specimen of His handiwork is a true and loving wife, a fond and tender mother, who so unselfishly devotes her time, her strength, aye, her very life, to brighten her home, to promote the happiness, the comfort and the welfare of her husband and the children whom God has intrusted to her care and charge. Children, those beautiful flowers of creation, that cluster around our hearthstones, like rays of sunshine, to brighten our existence. Let us mingle our sorrows with those of the households now made desolate by the death of the loving wife and mother, and extend to them our heartfelt sympathy, and mourn with them the loss which we all so deeply feel. For to sympathize with them in their affliction is, alas! all that human hands or human hearts can do.

The "bells of time are ringing changes fast;" the child of to-day will be the man of to-morrow, and we who are now in the midst of active life, will soon pass away, and another generation will walk in our footsteps. How important then that we should so shape our course on earth and so live here below that when our pilgrimage is ended and we are called upon to lay down our implements on earth, we may enter that paradise not made with hands, eternal in the Heavens, and receive that welcome plaudit, "Well done, good and faithful servants."

On motion of Bro. A. T. Dewey, the State Grange ordered that Bro. Merry's address be printed with the proceedings of this session.

CERES GRANGE, No. 64, of Stanislaus county, has adopted resolutions expressive of sympathy with Bro. F. C. St. Clair and family, for the sad accident which occurred to them while journeying from their home in Sonoma county, on a visit to their friends in Stanislaus county, thereby depriving them of their little son, and otherwise injuring others of the family.

FLORIDA.—Notwithstanding the great political contest that has wrapt our nation in greatest anxiety, our Order steadily advances and more closely draws its folds; its foes are fast turning to friends. Opposition to us in many localities has almost ceased, and those whose aim it was to demoralize our members are now willing and ready to negotiate with us to secure our patronage at favored prices. This is bringing new members in the Order that otherwise would have remained outside. The fact is, the enemies of our Order have done more to build it up than its advocates.—*Florida Patron.*

THE GRANGE IN CANADA.—The annual session of the Dominion Grange took place in Toronto, Canada, the second week in October, with one hundred and seven delegates present, and was presided over by Master S. W. Hill. The interests of the Grange in Canada are progressing, its membership increasing, and the advantages of the Order receive more general acknowledgment. The desire for amicable relationship with the National Grange of the United States was warmly expressed by Master Hill in his opening address.

THE Grangers' encampment building at Philadelphia was burned on Friday. Loss, $80,000; insurance, $50,000.

Agricultural Notes.

California.

ALAMEDA.

Plowing in Livermore.—*Enterprise*, Nov. 18: Very little work in this line has been done in this valley as yet. Only in the softer adobe lands has work commenced in earnest. The light gravel soils as a rule will require some pretty heavy showers ere the busy ploughing time sets in. Not a few men are hanging around town with the hope of obtaining employment on the ranches. They are invariably in a "bust" condition, notwithstanding the majority have been hard at work all harvest.

The San Antonio Redwoods.—Oakland *Transcript*: San Leandro creek, the source of our water supply, rises in the redwoods back of Brooklyn and makes a circuit of that township in its course to our homes. The water is not nearly so deep in the creek as in former days, when the tall trees could be seen from San Francisco, peering over the mountain top. There is no better proof of the meteorological effect of the denudation of timber on a country than is here offered. Now the creek runs shallow, where formerly there was water enough to drive saw mills. The growth of the timber has been nearly altogether suspended. Even the stumps that formerly sprouted so luxuriantly, gave promise of a new growth, but those, too, were rooted out by the ruthless squatters. One giant tree of this now extinct forest measured 13¼ feet in diameter, and a section of it after being prostrated by the woodman's axe and saw, formed the side of a settler's camp. Dr. W. P. Gibbons, of Alameda, once proposed to establish here a State park, and read a paper to that effect before a scientific association in San Francisco. Perhaps it is not yet too late.

COLUSA.

A Large Sale of Wheat.—*Sun*, Nov. 18: Dr. Glenn, of Jacinto, in this county, sold this week, 18,000 tons of wheat to Isaac Friedlander, at $1 65 at Jacinto. The ordinary freight from Jacinto to San Francisco is about $5 a ton, but for so large a lot Mr. F. can get it carried at about $3.50, which, with insurance, etc., will cost him about $1.85@$1 87 alongside the ship at San Francisco. Dr. Glenn has sold before this season about 2,000 tons. This, at the figure paid by Mr. Friedlander, amounts to $660,000. This sort of a crop will be apt to make farmers at the East open their eyes. Small lots of wheat at Colusa have been commanding $1.65, clear of storage. At San Francisco the price has not been above $1.82½, but Dr. Glenn's lot will stand the purchaser a higher figure. This purchase shows that Mr. Friedlander is not afraid of the future of the wheat market.

FRESNO.

Rain Wanted.—*Expositor*, Nov. 16: A good, heavy rain is now sadly needed throughout this valley. The early rain destroyed the dry feed and started the new grass, but the moisture in the ground is not sufficient to induce the growth of the new vegetation. The rain has not been sufficient to render plowing easy, in fact. In much of the new land it can only be done at a great disadvantage. There is ample time yet, however, for abundant rains.

LAKE.

Pork Curing Establishment.—*Democrat*, Nov. 18: There is an important industry going on under the very noses, as it were, of the Lake county press, that the papers have so far failed to notice. We refer to the pork curing establishment of Wm. Stonebraker, at Kelseyville. Mr. Stonebraker last year killed and cured 475 hogs, out of which he made bacon and hams, which established his reputation in that line of business. This year he has killed 650—337 last week and 313 this week. He has already paid out during the past three months $88,000 for hogs, and will purchase for curing this season a total of from 1,100 to 1,200, which will cost him in the neighborhood of $11,000. His enterprise enables our farmers to sell their hogs at an advance of from 25 to 50 cents of the rates they have formerly been paid by drovers, who have not this year put in an appearance in Lake county, simply because Mr. Stonebraker pays more for hogs than they can afford to give.

LOS ANGELES.

Ballona.—*Outlook*, Nov. 15:—The Ballona district is a large basin, comparatively well sheltered from the severe winds. The soil is excellent and well adapted to all the growths of this valley. There is also plenty of water, if it is properly economized, as it is not far to surface water; and the Ballona creek, which never becomes dry, runs through the lands the longest way. As yet the settlement is sparse. John D. Young has a large farm and has been quite successful in producing grain. Mr. Rose has an excellent dairy ranch; Mr. Sanford raises a quantity of small grain, corn and hogs; the Machado Brothers are scattered along the creek, and each have made a test of general farming, and have been successful in a small way with the semi-tropical fruits and grapes. For ordinary purposes we think no irrigation is needed.

MARIN.

Work.—*Journal*, Nov. 16: Plowing and seeding have been vigorously prosecuted in this county since the drenching rains of October, and a large area is already in. P. K. Austin has in 160 acres of barley, for hay, some of which is already six inches high, and showing a splendid body.

MERCED

Rain.—*Argus*, Nov. 18: We had a heavy shower of rain here on Thursday, lasting about 40 minutes, which completely saturated the top of the ground. Yesterday morning the valley was enveloped by a heavy fog, and at the time we go to press with our paper it is cloudy and the atmosphere is exceedingly humid. We observe a number of farmers about the shops with gang plows for repairs. A number of seed sowers and other farming implements have also been bought and taken to the country by farmers this week, from which indications we should judge that plowing and seeding had commenced.

NAPA.

Wool Pulling.—*Register*, Nov. 18: The tannery and wool pulling establishment of B. F. Sawyer & Co. is a growing concern. In addition to the several buildings heretofore erected and fitted up for the business, they are now putting up a six-story building, 40x24 feet, which is to be used as a dry house. Three stories will be devoted to drying skins—each having hanging room for about 4,000. The other three stories will be used for drying wool. The establishment now turns out about 1,100 skins a day—1,000 sheep and 100 deer skins, which are converted from pelts into the finest of leather by a process patented by the firm. A hundred men are now employed. The firm have handled and shipped East this season 600,000 pounds of wool.

SAN BENITO.

Los Aguilas Ranoho.—Hollister *Enterprise*, Nov. 11: The Los Aguilas rancho is situated in the eastern boundary of San Benito county, adjoining the Hernandez tract, about 14 miles southeast of Hollister. It is a Mexican grant, title U. S. patent, containing over 31,000 acres. The ranch is subdivided into four lots about equal size, three of which belong to J. M. de Laveaga, of Tres Pinos, and the remaining one to Donnelly, Dunne & Co. It is well supplied with timber of many varieties, and a number of springs and running streams afford an abundance of pure water. A good portion of the tract is the finest kind of agricultural land, which owing to the locality is almost sure to produce a crop in any season. Mr. Laveaga is now engaged, and will soon complete a splendid road, four and a half miles long, over which access to all parts of the ranch will be made easy. Our reporter was informed that it is the intention of the proprietor to cut up those lots into convenient parcels, and lease them on reasonable terms to settlers. Houses, barns, etc., also will be built on the different small lots for the accommodation of those who may desire to lease or rent. In addition to the farming lands a large portion of the tract is well adapted to grazing purposes, which will be let to stock raisers.

The Almond Orchard.—The property generally known as the Flint & Bixby orchard, which was purchased some time since by Mr. Don Redro, is, we believe, conceded to be the largest almond orchard in the State, and we had the pleasure of paying it a visit a short time ago. The new proprietor is using every effort to place the already fine property in first-class condition. Mr. Don Redro expects to expend about $10,000 on the place in improvements, and as we have already given an idea of the present beauty of the place, leave our readers to imagine what it will be when re-fenced, a fine dwelling, etc., are added. He intends to surround the whole place with blue gums, which he estimates will take about 75,000 trees of that beautiful variety. The stand of trees now growing on the place are as vigorous as any we have ever seen, and their growth for the past year has been the general remark of all who have had an opportunity to watch them. We look forward to the time (not far distant) when the almond orchard of Hollister will form one of the features of attraction to the neighborhood, and its marked success will, no doubt, give encouragement to others to follow the example of its energetic proprietors.

SAN JOAQUIN.

Chinchona.—Stockton *Independent*, Nov. 16: It is claimed that the chinchona tree, from the bark of which the quinine of commerce is extracted, will grow luxuriantly in the Sierra foothills. Has any one attempted to explore this new road to wealth in California? How handy it would be when a person was afflicted with the "ager" to go into his chinchona orchard, sit down under a tree and gnaw the bark that would cure his troublesome maladies.

SAN LUIS OBISPO.

Land for Work.—*Tribune*, Nov. 18: Along the Arroyo Grande, above the town of that name, are thousands of acres of the richest possible bottom lands, covered with a heavy growth of timber and underbrush. This land is principally owned by D. F. Newsom, H. A. Sperry and the Brauch Brothers. They are entering into contracts with working men to give them the use, free, for five years, of so many acres of this land as they will clear off and put in cultivation, the parties to leave the land at the end of the lease under good fence and condition. Already over 300 acres have been or are in process of clearing. The timber will make the fence, and in addition to the first crop pay all expenses of clearing the land. Every foot of this *monte* can be irrigated if necessary, but fortunately it does not, one year in ten, need it.

Death of a Valuable Brood Mare.—The Steele Brothers lost one of the best brood mares in the county, last Saturday. She died from the effects of a snake or tarantula bite on the head. She was so far gone when discovered that nothing could be done to save her life. She was with foal by Mr. Rembaugh's horse, A. T. Stewart, which makes her loss much more serious.

SANTA BARBARA.

Persimmon.—*Press*, Nov. 18: We have before us a Japanese persimmon grown by Colonel Hollister upon his rancho, which is a perfect specimen of fruit of its kind. It is a deep yellow in color, solid, smooth, without spot, speck or blemish, and weighs about three-quarters of a pound. It is of a number grown by him upon very young trees, and may without boasting be pronounced a splendid triumph of our soil and climate, supplemented by Colonel Hollister's acknowledged skill as a polygenous horticulturist, so to speak.

Beans.—Lompoc *Record*, Nov. 18: Mr. Frank Kleckner reports that on 26 acres he produced 800 sacks of beans, each sack averaging 65 pounds. This yield aggregates one ton per acre, and the class of beans produced are quoted at two and a half cents per pound. This brings the returns in gross at $50 per acre. The land on which this crop was produced cost less than $25 per acre.

Jumpers.—The western and southern portion of the Purisima rancho is being jumped quite thickly. We hear that 30 claims have been staked off recently, and persons are daily going there after others. Messrs. Hill & Jones, the claimants of the property, have recently instituted suits in ejectment against some 10 or a dozen of the parties. The eastern portion of the ranch was jumped by about as many more a year or so ago. They are still in possession and litigating for title.

SANTA CRUZ.

Whew!—The *Pajaronian*, usually a veracious journal, says: "Loads of pumpkins are being hauled through town. Sometimes eight or ten make a load for four horses, and occasionally it takes more. The pumpkins of the Pajaro valley are proverbially large and at a distance a field of them have been taken for a drove of cattle."

SONOMA.

Green Valley.—*Argus*, Nov. 17: The agricultural prospects in Green valley were never better than at present. Plowing is going on on most of the ranches, and with good weather, seeding will soon be finished. Grass and volunteer grain has a good start, and in some fields new sown grain is coming up finely. Potato digging is going on, the crop being about an average. The dry rot has appeared, but has not yet done much damage. The surplus potatoes are hauled to this city and thence shipped to San Francisco. The fruit crop in the valley was large and of good quality, but prices disconragingly low. A severe frost occurred last Saturday night, and was heavy enough to kill all the tomato vines and other tender plants.

Bloomfield.—We are informed by Pat Carroll, of Bloomfield, that plowing and sowing is going on actively in that section, and the agricultural outlook is as encouraging as it has ever been in the middle of February. Grass is growing vigorously and already affords considerable feed for stock. The potato rot has appeared in a very destructive form, and Mr. Carroll thinks nearly one-third of the crop will be destroyed by it. The rot is worse on low lands, but is also quite damaging on the hillsides. The early heavy rains were the means of adding largely to the damage by the rot. A large area was planted with potatoes in the vicinity of Bloomfield this year.

Point Arena.—A considerable portion of the region around Point Arena is fine farming land, much of it being peculiarly adapted to the production of potatoes, of which a large quantity is grown annually. They are of excellent quality, and the surplus above what is used in the vicinity is shipped to San Francisco. Considerable grain is also produced but most of it is consumed in the vicinity. Stock-raising is an important interest, and large numbers of cattle and sheep are sent to San Francisco and elsewhere, also wool and hides.

The Season.—*Democrat*, Nov. 18: The season has thus far been an unusually favorable one for the farmers. The heavy rains of October left the ground in an admirable condition for plowing. The succeeding warm weather caused the grass to spring up rapidly, and it is now of sufficient length to afford pasturage for stock. The season promises to be in all respects most favorable. There is a prospect also for better prices for wheat than the low prices which have prevailed during the past year. Mr. Staley informs us that the season is better than he ever saw before for farm work. Such is the rush that it is hard to get teams and hands to run the plow. The ground is in beautiful condition.

"Beet" This.—*Russian River Flag:* Captain Norton has a field of beets. Last Monday morning he measured one of the growing vegetables, and found it to be 37 inches in circumference. He will let it grow for a time just to see what it will come to. He has pulled several which would weigh 50 pounds each. A few seasons ago there were three pulled from an adjoining field, which weighed respectively 48, 52 and 60 pounds, and the Captain will be satisfied with his "beats" if he can grow three this year which will exceed them in weight.

Large Pears.—Last Saturday John Patrick, of Alexander valley, left at this office a lot of pears for which he has our thanks. Three of them weighed 7¼ pounds, and the heaviest one 2 pounds 10 ounces. The measurements were as follows: 16x19¼ inches, 15¾x18½ and 15¾x19. Mr Patrick's place is about 8 miles northeast of Healdsburg and contains one of the finest orchards in the valley.

Shipping Dried Fruit.—James Mead, who resides a quarter of a mile south of Healdsburg, will ship a car load of dried fruit to Chicago this fall, largely the product of his place. This is an enterprising move, and will no doubt open up an important trade. Dried fruit is always a saleable article, and can be made very profitable by our fruit raisers. Plums are the most profitable for drying. The average price per pound, in the San Francisco market, is from 16 to 22½ cents, and sometimes even higher. The great advantage in dried plums is that they shrink less than peaches, apples, pears, etc., and as can readily be seen from the figures given above, they command a much higher price.

VENTURA.

Oats.—*Free Press*, Nov. 18: During our summer rambles around Hueneme, we were much struck by a fine field of oats. We have since learned from the owner, Mr. Charles Dunn, that said oats threshed 42 bushels to the acre, and he realized, in the San Francisco market, $1 65 per cental (half gold), at a time when the quotations for oats ruled generally at from $1.40 to $1.75 per cental, which of itself proves that they were well appreciated by the cognoscenti in the Golden City. These, we believe, were the first oats threshed on the Colonia rancho, and as they have proved so successful a crop, in the interest of our subscribers we draw attention to the matter in order that they may perhaps cultivate their light sandy spots to better advantage than by putting it into barley, which requires a richer soil to mature properly. These oats were raised on land which, under favorable circumstances, would not probably have yielded 10 sacks of barley to the acre.

YOLO.

Seed Wheat.—*Mail*, Nov. 16: We have been talking with a solid farmer of Yolo county, who seems to have been very successful in dry as well as wet seasons, and he informs us that there is wisdom in changing from one kind of wheat to another each year, alternately. He says that in making this change he is very careful to select the seed from those who use diligence in keeping it clean. The wheat called Proper, he says, will not yield well two years in succession on the same ground, and never gives a satisfactory return by what is called "volunteering." The Club wheat does the best in volunteering, as it is seldom known to blast and is of sturdy stalk. The Chile wheat is the most apt to go to cheat, the philosophy of which he does not understand. If he puts Club wheat in a field one year, he changes to some other kind the next sowing, and by so doing he thinks he has a much better yield. It might be well for others to make the experiment.

Hard at It.—Our farmers are now hard at work plowing the ground for next year's crop. The ground is in good condition and the weather is fair, which is fortunate for them, and there will, no doubt, be a large area put in. There does not seem to be any one disheartened on account of the very low prices received the season just closed; but rather a firm belief that the war-cloud in the East portends a healthy market next year. At all events there is no halting with them, for we are credibly informed that the demand for plows could not be filled by our local dealers, and some of our farmers have gone to the city and purchased them in order to be at work and have their planting done before the winter rains set in.

Oregon.

Farming Items.—*Oregonian*, Nov. 11: Farmers are busy plowing. Should good weather last for two weeks, a large amount of grain will be sown. A correspondent of the Walla Walla *Union* says that in Columbia county a section, eight miles wide by ten miles long, yielded 100,000 bushels of grain. A company has been formed at Salem to carry on the manufacture of the Pelton horse power and grain separator, an Oregon invention of much merit. The *Farmer* sums up the financial condition of the State agricultural society thus: The debt of January 1st, 1876, was about $5,000; improvements made were about $10,000, making a total of about $15,000. The receipts of the late fair were, over expenses, about $5,000; leaving the society at present under a debt of about $10,000. A letter from Forest Grove to the *Independent* says: There is considerable wheat selling here at 75 cents a bushel. Mr. Shipley has sold 3,000 bushels to a Portland miller, which will net him 82 cents per bushel, which is more than the market price. The lot was of extra quality and the party bought it to fill a flour contract. The Seattle *Dispatch* says: Samuel Calhoun, of Swinomish flats, is stowing oats at the Belltown wharf. When he gets enough together to warrant it, he will charter a vessel to take them to San Francisco. He has already stored 2,500 sacks, and does farming on a big scale for this patch of woods. This year he has threshed by steam power, not only for himself but also for his neighbors, and to accommodate them he has inconvenienced himself on more than one occasion.

The steam tug *Monarch*, one of the most powerful vessels of her class in the country, was partially burned while on the ways last Saturday. Nearly half the hull will have to be rebuilt.

Woodward's Gardens embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.



Home to the Village.

BY D. M. JORDAN.

I.

So yon have been to the villago
And the homestead over the hill,
And walked once more down the shady road
That leads to the old grist mill?
What of the old log schoolhouse,
With its benches narrow and hard,
The desks where we used to carve our names,
And the trees that shaded the yard?

II.

The homestead roof is mossy and gray,
Its rooms are empty and still;
The weeds are trailing over the walk,
The mildew darkens the sill.
The dear old road by the river
Is tracked by the iron rail,
And the shadows under the maples
Have fled as a swift-told tale.
The schoolhouse, ragged and roofless,
Stands where it did of yore,
But the dancing feet of the children
Waken the echoes no more.

III.

Alas for the dear old schoolhouse,
But where are the boys and girls?
With their merry pranks and laughter,
Their sorgs and their sunny curls?
Is the old shop door still open?
Does the anvil chorus still ring
To the strokes of the sturdy blacksmith,
And the songs he used to sing?
And the quiet spot on the hillside,
Where the sweet blush-roses grow;
Did you look on the shining marbles
For the names that we used to know?

IV.

Where are the boys and girls? Ah, me!
I talked with a gray haired man,
Never guessing until he told
That he was the merry Dan
Who locked the master out in the cold,
And made him treat the crowd;
Who stood up longest at spelling-school,
And looked so handsome and proud.
There is a grand new schoolhouse on the spot
Where the anvil used to sound,
And the arm that wielded the heavy sledge
Is resting under the ground.

V.

I walked where the western sunbeams
Touched, with their fingers of gold,
The names on the mossy marbles
That we loved in the days of old.

Pen Sketches from Berryessa.

[Written for the RURAL PRESS by MRS. M. STAFFORD.]

With pleasure we hail each week the arrival of the PRESS, the farmer's friend and the housekeeper's adviser. We have been luxuriating in unusually fine weather since the early heavy rains; and though it is very late in the season, still teaming and hauling away grain goes on briskly, the mountain roads being in splendid condition. Apropos of the weather, I noticed a week or two ago in the PRESS a pleasant letter from an amiable sister away on the far-off shores of the East—Massachusetts, I think; there the winter reminds us of the fact that for weeks the cold Atlantic winds and unfriendly skies have necessitated the burning of fires and wearing of heavy wraps. How strange to us! Though we may have remembered these things, yet a long sojourn in this salubrious climate is apt to make us half forget many of the unpleasant things that surround the country of our birth; but not forgotten are those of brighter phase: the old home, the loving friends, the many sleigh rides, evening parties, the beautiful snow, etc., all relics of vanished youth; and as youth slips away from us, we remember most distinctly the treasures left behind.

A California Scene.

It would perhaps be as difficult for our Eastern friends, wrapt in the icy fetters of a rigorous climate, to imagine our November spring climate. Since the visitation of the autumn rains we have been blessed with weeks of the most charming weather. Such clear, golden sunlight! Such fine, crisp, morning air! and lazy, indolent noons, with the balmiest of sunsets and twilights! The hills which but lately wore the somber, dusky tints of a faded summer, are now softly and almost imperceptibly being clothed in the young and bright verdure of our early winter. A week or two ago we looked and there was hardly an emerald tint; to-day, I see even on the far peaks of the neighboring Coast Range mountains the bold and onward march of verdure. In the fields where plowing has not yet commenced, the green wheat is springing among the dead and brown stubble of last year's crop, and the summer flowers that patiently bore the months of scorching sun have bloomed anew. My flower garden is gay with yellow and white and cardinal red chrysanthemums, and the rose and lilac bushes, etc., are putting forth new leaves, ere the old ones have fallen. My verbenas, too, are germinating for bloom, but I fear will be destined to speedy death by the ruthless touch of the frost king, which, in our particular vicinity, is often quite severe during the winter season.

One might imagine from my little picture that our wondrous land is one of enchantment; not so, there are darker sides and faulty shades; and dearly as I love it, and firmly as I am wedded to it, it, too, is a country of "sunshine and clouds, love."

One little item in regard to the

Gored Skirt Pattern.

Our Eastern sister mentioned that some one was reveling in the fact that she had found a pattern with only seven pieces in it, but she herself possessed the superior bliss of having one with five pieces. I know it will confer a blessing on the devotees of gored skirts by informing them that my patterns contain only four pieces, two full widths and two gored. Let us hear from some one else. Reform and progress is our motto.

Singular Story of a Box.

In the year 1852, when this Pacific coast was one vast and comparatively untrodden wilderness, there came among the many emigrants to the wilds of Oregon one Doctor M. C. Barkwell, of Troy, Indiana. Being a physician, he had accumulated a number of valuable books, mostly medical works, but as the journey was to be made mostly in wagons, he was forced to box up his books and leave them behind in consequence of their extraordinary weight. He placed them in care of a brother with the request that should he reach that land in safety and write to him he would have them shipped. In due time he reached the country in safety, and after getting settled in his new home he wrote to his brother to ship his box of books. It was promptly done. About a year passed and the brother had heard nothing of the safe arrival of the box. At the end of that time there came another letter from the doctor, somewhat impatiently requesting his brother to send his box of books. With surprise the brother read the letter, and, convinced that the box was lost, wrote to the doctor to that effect. Months passed and the doctor gave up all hope of ever finding his lost treasure, and the box was reluctantly numbered among the things that were, for good books in this far-off coast in the pioneer days were precious treasure and dearly prized.

Some three or four years after this, the doctor, in a little sea coast town, had been sitting up all night with a patient. Near dawn, being relieved by his watch, he left the house for the purpose of going home and getting an hour or two of sleep; but stepping out in the dim, gray morning light, he could dimly sea the broad expanse of ocean, and the sweet, fresh air from the water wooed his footsteps to the beach. Thither he went, and pacing up and down on the yellow sands, he watched the sweet approach of day. At length he struck his foot against something, and stooping discovered it to be a box. "Ah," thought he, "I will sit here on this box and watch day break over the ocean." Then he sat and drank in the cool inspiration of the morning air, and as he rose his attention was attracted to the box by its singularly old and worn appearance, and also a familiar look about it which riveted his gaze. On closer inspection, what was his surprise to see, lettered dimly and worn with age, his own name, Dr. M. C. Barkwell, and the address. The truth came like a flash, this was his long lost treasure—his box of books. With what emotions of surprise and pleasure he opened it and reviewed these dumb companions of other years we can only imagine But where had it been in all that time? It had sailed around the Horn, been tossed from port to port, or had silently lain in the hold of some old ship and been thrown on the beach as fate would have it at the feet of its owner and the place of its destination.

Monticello, Cal., Nov. 15th, 1876.

The Footprints of Time.

Time is relentless. The pendulum swings back and forth marking the steady flight of the moments. The ticking of the clock is the blended music about the cradle and the dirge about the grave. Birth—death, is the language of the time piece on the mantle. Amidst the laughing glow of the morning's blushes and the soft shadows of the evening twilight, amidst the bloom and fragrance of springtime, and the solemn slumber of the winter, over the altar and the bier, the pendulum vibrates with the same solemn steadiness—the clock ticks off the life of the seconds—time moves swiftly into the past and we move swiftly towards the future. The clock will not always tick—the pendulum will not always swing; its constant friction against the past and present will wear it out. By-and-by we will listen for its salutation to the coming moments, but it will speak not. Dumb and motionless as death! Like the heart of the dead the pendulum sleeps—sleeps in wakeless slumber; like the tomb, the old clock is speechless and the abode of unending silence; like the stringless harp upon the wall, its labors are ended—its music is hushed—hushed forever.

But the flight of time goes on the same. It comes with its gray hairs, and scatters them through the raven locks of youth—with its yawning graves and open caskets—with its funeral trains and tear-floods—its disappointments and heart-aches. It leaves its footprints on the hearthstone, the garden, the homestead, the heart, the cheek. Mother looks into the cradle, but baby is not there; she listens for its merry prattle—she hears it—smiles—then weeps—she hears only the echo of the darling's voice—the echo which never dies in a mother's heart. Time laid the little bud in the cradle—time bore it to the little grave among the flowers; time thrust a poignard into the mother's heart, and the wound will never heal. In the silence of the night it aches and bleeds as the mother dreams of her sleeping pet, and while the hands move in search of the absent one, the lips part and in sweet, tender tones she sighs, "Baby." The old man goes back to the home of his childhood. He left it but yesterday, but oh, how changed. The vine that crept over the trellis at the door is dead: the trellis is gone. The arbor in the garden is a shapeless, uninviting mass of rubbish. There is the spot where the village pastor and the mother knelt 40 years ago to ask God to bless the innocent boy who was going out into the world, from the sunshine of mother's love into the cold companionship of strangers, from among the flowers into the midst of brambles, from safety into danger. That boy comes back to-day. With wrinkled cheek and frosted brow he sits down upon the crumbling door sill, and weeps. Mother is not there to greet him; she is dead. The old pastor is not there to shake him by the hand; he is dead. Father's voice is not heard among the hills; he is dead. The old man rises, and half forgetting that he is old, goes down to the banks of the stream that murmurs at the foot of the mountain, to "meet the boys." They are not there; they are dead. He goes back to the old house, reclines upon the well-worn cot to rest, the light begins to flicker in his breast, his eye grows dim, his pulse grows weak—he goes to "meet the boys," to see mother, father, and the old village pastor. Time does it all. It touches our lives and they go out; it touches the flowers and they wither; it kisses the granite and it crumbles; it kisses beauty and it fades; it steals over scepters and they rust; it flows over throne and they totter. The moments are faithful reapers—reapers for God. They come with messages from heaven—with the decrees of death; but not with these alone. Time is not entirely dreary in its flight. It fills the grave, it fills the cradle; it blights the rose, but it fringes the forest with golden beauty; it crumbles thrones, but it it gives life to republics; it robs us of earth, but gives us heaven; it raised the cross, but it burst open a locked paradise; it separates loving hearts, but it again unites them, it covers its own frowning wrecks with loveliness and bloom and destroys but to beautify and ennoble.—*Western Rural.*

Thanksgiving Proclamation by Governor Irwin.

STATE OF CALIFORNIA, EXECUTIVE DEPARTMENT:

In pursuance of a custom which obtains in most, if not all, of the States of the Union, I hereby appoint Thursday, the 30th day of November, instant, to be observed as a day of thanksgiving and praise. The people of the State are invited to desist from their ordinary vocations on that day, and, assembling in their accustomed places of worship, to give thanks and praise to the Divine Providence for the many blessings bestowed on them, as a community and individuals, during the past year.

We have not suffered from the visitation of famine and pestilence; abundant harvests have rewarded the labors of the husbandman, while general health has blessed the people. General prosperity has visited every part of the State, and caused contentment and happiness among all classes.

We have not been subject to the evils of arbitrary power on the one hand, nor to those of unbridled license on the other. We have enjoyed the ineetimable boon of liberty regulated by law. We felicitate ourselves that the cause of education, morality and religion has been advanced.

Our condition, material, social and political, as compared with the condition, in these respects, of most other, even enlightened and Christian peoples, should inspire us with emotions of gratitude, and dispose us to give thanks and praise to the Source of all Good.

Let us, then, on the day set apart for that purpose, recount our obligations to God, and thereby nourish in our hearts those feelings of dependence and sentimente of gratitude which should ever characterize a free, intelligent and religious people.

In testimony whereof, I have set my hand and caused the great seal of the State to be affixed hereto, this, the 14th day of November, A. D., 1876. —WILLIAM IRWIN, Governor; THOMAS BECK, Secretary of State.

TROUBLES OF TOO MUCH ADIPOSE.—At the Centennial grounds there was a fat woman at a side show, and during the late fire she had considerable difficulty in escaping; she gives this account: "I can step at a 500 pound weight, and, as the front stairs were on fire, I had to go down the back way. Now, the front stairs were built especially for me, of wood six inches thick, while the back steps were only fit for common light people like yourself. The first step I took, crash went the wood, and I came near going myself. The hog was squealing awfully, and both the sea-cows were roaring like mad bulls, but I wasn't frightened a bit. I got a long smooth board and placed it on the stairway. I tucked up my dress and slid down gracefully. I smashed everything at the bottom and got my foot wedged. Just as I got free a noble fireman rushed into the building. 'Rescue me, rescue me!' I cried. He came toward me, and I threw myself into his arms. He fell with a shriek. My weight had broken both his legs."

Woman's Education.

The assembly met, and the union orator got up; he was a preacher of the Gospel, and carried the weight of that office. Christianity as well as science seemed to rise against us in his person. He made a long and eloquent speech, based on the intelligent surmises and popular prejudices that were diffused in a hundred leading articles, and in letters to the editor by men and women to whom history was a dead letter in modern controversies; for the press battled this matter for two years, and furnished each party with an artillery of reasons *pro* and *con*.

He said: "Woman's sphere is the hearth and the home; to impair her delicacy is to take the bloom from the peach; she could not qualify for medicine without mastering anatomy and surgery—branches that must unsex her. Providence, intending her to be man's helpmate, not his rival, had given her a body unfit for war or hard labor, and a brain four ounces lighter than a man's, and unable to cope with long study and practical science. In short, she was too good and too stupid for medicine."

It was eloquent, but it was *a priori* reasoning and conjecture *versus* evidence; yet the applause it met with showed one how happy is the orator "qui hurle avec les loups." Taking the scientific prescher's whole theory in theology and science, woman was high enough in creation to be the mother of God, but not high enough to be a sawbones.

Well, a professor of *belles-lettres* rose on our side, not with a rival theory, but with facts. He was a pupil of Lord Bacon and a man of the 19th century; so he objected to *a priori* reasoning on a matter of experience. To settle the question of capacity, he gave a long list of women who had been famous in science: such as Bettesia Gozzadini, Novella Andrea, Novella Calderini, Maddalena Buonsignori, and many more, who were doctors of law and university professors; Dorotea Bocchi, who was professor both of philosophy and medicine; Laura Bassi, who was elected professor of philosophy in 1732 by acclamation, and afterwards professor of experimental physics; Anna Manzolini, professor of anatomy in 1760; Gaetana Agnesi, professor of mathematics; Christina Roccati, doctor of philosophy in 1750; Clotilde Tambroni, professor of Greek in 1793; Maria Dalle Donne, doctor of medicine in 1799; Zaffira Ferretti, doctor of medicine in 1800; Maria Sega, doctor of medicine in 1799; Maddalena Noe, graduate of civil law in 1807. Ladies innumerable who graduated in law and medicine at Pavia, Ferrara and Padua, including Elena Lucrezia Cornaro, of Padua, a very famous woman. Also in Salamanca, Alcala, Cordova, he named more than one famous doctress. Also in Heidelberg, Gottingen, Giessen, Wurzburg, etc., and even at Utrecht, with numberless graduates in the arts and faculties at Montpellier and Paris in all ages. Also outside reputations, as of Doctor Bonvin and her mother, acknowledged celebrities in their branch of medicine. This chain, he said, has never been really broken. There was scarcely a great foreign university without some female student of high reputation. There were such women at Vienna and Petersburg; many such at Zurich. At Montpellier Mademoiselle Doumergue was carrying all before her, and Miss Garrett and Miss Mary Putman at Paris, though they were weighted in the race by a foreign language. Let the male English physician pass a stiff examination in scientific French before he brayed so loud. He had never done it yet. This, he said, is not age of chimera; it is a wise and wary age, which has established in all branches of learning a sure test of ability in man or woman—public examination followed by a public report. These public examinations are all conducted by males, and women are passing them triumphantly all over Europe and America, and graduate as doctors in every civilized country, and even in half-civilized Russia.—*Harper's Magazine.*

DRINK.—From a speech by J. J. Talbott, who recently died drunk in Elkhart, Ind.: "I had position high and holy. The demon tore from around me the robes of my sacred office and sent me forth churchless and godless, a very hissing and by-word among men. Afterward my voice was heard in the courts. But the duet gathered on my open books, and no footfall crossed the threshold of the drunkard's office. I had money ample for all necessities, but it went to feed the coffers of the devils which possessed me. I had a home adorned with all that wealth and the most exquisite taste could suggest. The devil crossed its threshold and the light faded from its chambers. And thus I stand, a clergyman without a church, a barrister without a brief, a man with scarcely a friend, a soul without hope—all swallowed up in the maelstrom of drink."

HORACE GREELEY once said: "There is nothing easier in this wicked world than to edit a blackguard paper, and nothing more difficult than to get up a newspaper free from foulness and blackguardism. Fish-women and bar room loafers are skilled in the art of bandying epithets and bespattering each other with dirty words—it requires no brains to do this; but it does require both heart and brains to print a newspaper that a decent man or woman can read without a blush." Every person should read the above and then examine his newspapers and in the future patronize only those journals which do not throw dirt and are free from blackguardism, those journals which support the interests of the laboring classes and do not support rings, cliques or monopolies of any kind.

The Oldest Woman in Scotland.

At a meeting of the British association in Glasgow, a psper by Sir William Alexander, C. B., K. C. B., F. R. S., was read, giving an acconnt of the oldest woman in Scotland, who had lived to the age of 115, and died in the present year. The name of this woman was Catharine M'Ivor, and she was born in the island of Lewis, and was criginally a servant. She herded cattle on moor grazings, and carried home peats; she delved land, and worked abont the honse, and milked cows. She was never married, and was a panper on the parochial board since the passing of the Poor Law act, the cause of her admission being old age and blindness. She took for food and drink home-made sonp or broth, oatmeal and barleymeal porridge, fish and potatoes. She took no stimulants, thongh a Highlander, bnt latterly was fond of a cnp of tea. Her habits were cleanly and tidy, and she was active nntil lately laid aside by partial blindness. Thongh small in stature she was strong and bony, was generally very healthy, till within the last nine months of her life. She was very honest and industrions. Her home was in a thatch house, bnilt of stone and turf, the smoke going throngh the roof, there being no chimney, the fire-place being in the center of the floor. In the opinion of the old people of Lochs, and from statements made by herself, Catherine M'Iver was 115 years old—that is she was born in 1761, before the Duke of Wellington, Napoleon or Sir Walter Scott. It seemed quite clear that she was npwards of 100 years old, for an old man of 95 years, who lives at Lochs, states that he remembers her being a servant in his father's honse when he was a young boy, and she was then a fnllgrown woman.

Conversation at Home.—We once knew a family where Shakspeare was read in character, as it were, and each member of the circle round the home table took a sepsrate personage in the play. Readings of this kind would give a real basis for conversation. There is no reason in the world that good conversation should be as rare as it is; but, as every mistress of a drawing-room in America knows, talk does not come by accident. We puzzle onrselves, as we listen to the ceaseless gabble of a girl on a "call," how any human being can have fallen into such vacnous imbecility; but the secret of it lies at home. A woman learns to dress, to dance, or to ride, but she picks np the art of convereation as she can. When the need for talk comes she finds that conversation is just as difficnlt an art as riding, or dressing, or dancing. She is too plucky to give in, and too shy to hold her tongue; and so she plunges into a goose-like gabble. Men and women will only learn really to converse when conversation, in the trne sense of the word, is familiar to them at home. But to converse—in other words, to find fresh subjects, and treat them freshly; to preserve a tone of lightness and ease without falling into frivolity; to know how to avoid mere discussion and controversy, and yet to deal with topics of real interest and value; to perceive when a theme is socially exhausted, and when the moment has come for a digression; how to check one member of the circle, and to draw ont the other; how to give their proper place even to jest and repartee—sll this is no easy matter. It requires forethought and trouble, and a little organization; but we can hardly conceive anything which wonld contribute in a higher degree to the happiness of an evening at home.—*Philadelphia Post.*

The Nature of Love.—Self-offering is the central vital element and the touchstone of love. Whatever fires may stir the heart, if there does not appear an unhesitating, spontaneous outgoing of self, a desire to bestow what one has and is npon the object, and to secure its happiness, the passion is not love, however well it may simnlate it, or however ardently it may burn.

There is too mnch which passes for love, and which unfortunately secnres many of its privileges, which is really only selfishness. Beauty, character, possessions may awaken admiration, induce homage and kindle intense passion to possess the object which offers the attraction, and yet fail to evoke that royal power of the soul which, while it may indeed deeire to gain, loses sight of it in its eagerness to bestow, or hopes to win in order that it may more fully bless. Snch connterfeit of love may even deceive him who feels it. He may declare trnthfully that his existence seems bonnd up in the pnrsnit and acquisition of the desired object; but once gained, and the selfish desire gratified, there is nothing left to renew the flame; heat and light depart together, and blackened hopes and the ashes of disappointment remain.—*Evening Post.*

Does the World owe a Living?—There never was a graver error than is expressed in the common saying, "the world owes me a living." "The world owe you a living! Why? How? The world owes you nothing that yon do not bny and pay for!" There are no rights without dnties in civilized society. "With what measure ye mete, it shall be measnred unto you again." Your right to a living depends upon the eqnivalent yon offer for that living. "If a man will not work, neither shall he eat." Let those who claim exemption from this rule be content with the fare of prisons and alms-honses. From you, who have the advantages of a snperior education, is dne to the world more than from others, by how mnch yonr opportunities are snperior to theirs, and yonr reward shonld be proportional to the value of snperior service.—*C. F. Hopkins.*

Young Folks' Column.

Mamma's Dolls.

"O mamma, were your little doll-girls ever bad
Like mine? So bad they made their little mamma sad?
Would your dolls twitch when you combed out their little curls?
You said you once were small and had some dolly-girls!

"Tell me about your dolls, and when your name was Kit,—
Just litle Kit, like me, you know. Mamma, is it
As nice to be a woman? Don't you want to be
Little again? Why didn't you save your dolls for me?

"Did you have lots of dolls? What kind did yon like best—
The little naked ones, or those you bought all dressed?
And did your mamma give you pieces of her dress?
Oh! when she gave you silk, *then* you was glad, I guess!"

Saved you my dolls—should I tell you, my little Kit,
About when *I* was little Kit, you'd laugh at it.
That Kit lived miles and miles from dolly-stores; and, worse,
Her mamma had no dolly-money in her purse.

So, Kit, what do you think that little Kit did do,—
That poor, poor Kit? Her dolls would not have done for you;
She rolled a piece of cloth, and sewed it in a roll,
Eyes, nose, mouth, hair,—she marked them with a piece of coal!

The pipe-stem arms were cloth, the pipe-stem legs were cloth,
Kit's mamma took a stitch to bend the ankles both;
And Kit felt grand to get a piece of calico
For dolly's dress—grandmamma had no silk, yon know.

"And that was all she had?—mamma, I feel so bad!"
Oh, no, sweet pet, a bigger doll she often had:
She pinned a pillow in her little blanket-shawl,—
Don't laugh! she loved that soft fat dolly best of all.

"Poor mamma! if I'd lived then, I'd have give you some
My dolls. I'm glad you stayed and lived until I come.
It's made up now. Because you didn't have dolls, you see,
When you were little, *now* you have papa and me!"

Wide Awake.

A Naughty, Naughty Boy.

"Do you know, Sue," said Jack, "what I'm going to do?"

"Yes," said Sue, "you're going to school."

"No," replied Jack, "I'm going fishing with Jim Turner."

"I don't believe it a bit," said Sne; "father won't let you."

"Shan't ask him."

"Why, Jack Bunker, you'll just get the awfullest whipping you ever heard of."

"No, sir, Jim says he never asks his father. He says it's more manly to go off on yonr own hook."

"Doesn't it hnrt?" asked Sue.

"What hurt?"

"Going off on your own fish hook."

"Didn't say fish hook at all; but girls don't know anything about being a man, and I'm going to try it, any way."

There was Jim just coming aronnd the corner, with his school books in a fish basket.

"Got any bait?" shouted Jim.

"Only one worm and a half," said Jack, "he broke in two."

"What you got there?"

"Luncheon," said Sue.

"Any donghnuts?"

"Two big ones."

"Yes, I remember doughnuts, I think," said Jim sadly; "are they round?"

"Yes."

"I thought so," said Jim, "althongh it's so long since I've seen any I wasn't sure. They're just splendid for bsit, too; the fish like em, better than most anything."

"Won't you please, Sue," said Jack, "one worm and a half is no bsit at all."

So dear little Sue gave np her doughnuts and the boys turned off toward the woods.

"Why," said Jim suddenly, "isn't this Wednesday?"

"Yes."

"Well, don't yon know fish never eat doughnuts Wednesday?"

"They don't?" said Jack.

"No, sir, they don't," and in one short minnte that wicked boy had poor Sne's doughnnts just where he wanted them all the time.

I should think they fished there more than two hours without catching a single thing or using np their worm and a half, and Jack began to wish he wasn't a man after all.

"Are yon sure you never got whipped for being a man?" inqnired Jack anxiously as they started for home.

"Doesn't hnrt any if I do," said Jim. "Jnst kick me."

"Where?" said Jack.

"Where you always kick a boy," said Jim.

"Won't you be mad?" asked Jack.

"Go ahead."

Jack kicked as if it were the only invitation he expected to have during his lifetime, but Jim didn't even wink.

"Same way when father whips me," said he.

"How do you do it?" asked Jack, who was feeling a horrible dread all over.

"See here."

After a good deal of tugging and pnlling something very mysterions made its appearance.

"What's that?" said Jack.

"Shingle," said Jim.

"Can't you feel it through?"

"Not a bit."

"Wish I had one."

"All right; we'll stop at my house and I'll put one on."

The operation was performed in Jim's room, and when Jack started for home he walked so straight he looked like a major. When he reached his own gate he found he was all slipping down, but he got behind the big elm and fixed himself all right again, and then he marched tremblingly into the house, and there he found little Sne sitting on the lowest step of the stairs.

"Is dinner ready?" asked Jack.

"Yes," said Sne, "but I couldn't go until yon came home."

"Why not?" said Jack.

"Because," answered Sue, and her voice trembled a great deal for such a very little voice, "because I was so afraid you would be whipped."

Poor Jack began to feel a funny feeling in his nose. He loved Sue dearly, and he began to feel so very mnch ashamed that he never wsnted to be a man again.

"Why, if papa should make you cry, dear Jacky, I shonld cry, too, awfully."

In a minute the little boy who had tried in snch a funny way to be a man, was dear old Jack sgain. He put his arms around Sne's neck and promised never, never to be nanghty again—just as if she had been mamma, yon see. Then he went into the parlor, and you csn guess what he hid nnder the sofa; then, taking Sue's hand, he walked bravely into the dining-room and np to his papa.

"Papa," he said, "I've been a naughty, naughty boy; I didn't go to school, but I went fishing."

Then Sne went np and put both her arms around papa's neck and whispered in his ear, "Papa, dear, it'e my birthday to-day yon know, and won't you give me Jack's whipping for a present?"

What could papa do? Jsck was so very sorry and little Sue so very sweet that he couldn't do anything but take each on his knee and let them kiss him jnst as mnch as they wanted to, and after dinner Jack whittled a beautiful doll out of the shingle for Sue, to pay for the doughnuts the fish didn't get.—*N. Y. Tribune, Jr.*

Good Health.

The Value of Condiments.

By condiments we mean substances like sngar, spices, vinegar and others that are employed to impart flavor and piquancy to the staple foods. They are usually regarded as non-essentisl, and some writers on dietetics have gone so far as to condemn their use, nnless in rare instances and in the most infinitesimal proportions. Like all good things they are liable to be abnsed, bnt when properly used they are valuable elements in our daily food. Prof. Voit, of Munich, than whom there is no higher authority on such a subject, considers that their importance has not been sufficiently recognized. It is not enough that food should contain alimentary principles in proper quantity; to render it really nutritious there must also be a supply of condiments. These have been compared to oil in a machine, which neither makes good the waste of material nor snpplies motive power, yet causes it to work better; they render essential service in the processes of nutrition, though they are not of themselves able to prevent the waste of any part of the body. "A dietary deprived of condiments, a mere mixture of alimentary principles without taete or smell, is unendurable, and causes nausea and vomiting." It is not until condiments are added to aliment that it really becomes food. Extreme hunger msy enable ns to dispense with them, as it msy compel us to devour what at other times would be disgusting, but nnder ordinary circumstances they are an essential part of our diet.

Condiments have an important influence upon the processes of digestion and nutrition. The mere sight or thonght of a savory dish "makes the mouth water"—that is, it makes the salivary glands pour out their secretion copiously, which is an important stage in digestion, especially for certain articles of food. Experiments made upon dogs show that a similar effect is produced upon the gastric secretion, and thus the work of digestion is further promoted. The loss of the sense of taste would be not merely a loss of enjoyment, but a positive injury to the digestive system. The very smell of food may do ns good, just as certain odors will restore a person who has fainted.

It does not follow because condiments are nseful, that we may not have too much of them; on the contrary, their best effect depends upon their being used in moderation. The more decided the flavor of any article of food, the sooner does it pall upon the appetite. It is one of the peculiar merits of French cookery that flavors are so delicately blended; no one is specially prominent, and yet by their different combinations a wonderful variety of appetizing effects is produced. We Yankees, like the English, are apt to use condiments in a coarse, reckless way, and thus miss their finer and more exquisite effects, besides losing much of the benefit that might be derived from them. By a nicer care in their employment, the plainest and simplest diet might be made at once more delicious and more digestible.—*Journal of Chemistry.*

Domestic Economy.

Washing Dishes.

Whether an English woman can tell our bright American housewives anything about washing dishes depends upon whether they can find anything new in the following suggestions, which we take from an article in the London *Agricultural Gazette:*

Such pans and goblets as are in every day use, after being thoroughly washed, may be simply dried out with a linen dish cloth; but soup pans and fish kettles, that may be put away for a week or so at a time, shonld be dried at the fire before being hung up, which will prevent iron pans from getting moldy or musty, and tin pans from rusting, however long they may be out of use. And it is not only the pot or pan that must receive attention, for if that be ever so clean, and the lid left unwiped, then the savor of whatever may have been gathered on it dnring the last process of cooking, set free by the steam of the next operation, inevitably falls down on the new material, and a most incongrnous compound may be the result. This is also the case with dish covers, which are too often hung np with all the steam of the last joint, fish or pudding on them, at the risk of its dropping down on the next article covered, and the certainty of the metal inside becoming in time black and stained. Brass pans should be cleaned inside with vinegar and brick, then rinsed thoroughly, dried at the fire, and finished off by wiping ont with a clean cloth. White enameled pans only want a little soda and warm water to keep them pure and sweet, and free from the grease which would be so disadvantageous to the finer kinds of made dishes that these pans are principally nsed for. Soda is also useful for rinsing out a mixing dish before msking a cake or light pudding, as the grease from an ill-kept dish-cloth is qnite sufficient to acconnt for what to many is so mysterions, namely, that the sponge cake or pudding, which should have been light as snow, turns out heavy and tongh.

Earthenwsre molds—the best and easiest kept of all kinds, whether for boiling, baking, or simply shaping—should also be rinsed out with a little soda in the water, which in its turn should be well rinsed off, as in its way it is just as objectionable in taste and smell as anything that can be named.

For dinner dishes soap is better than soda, as it gives them a clean, glossy look, and thoroughly cleanses them at the same time. A brush for handles of tureens, etc., should be provided, and plates should never be piled up half warm from the hot water, but spread ont, or ranged in a plate rack to cool and dry, before being put away.

Boiled Rice.—Most readers think this is something easily prepared. So it is, perhaps, but few have an idea of the necessity of having it properly done—that is, cooking it until every grain becomes perfectly softened. If the grains are not reduced to this soft state, rice is almost certain, when swallowed, to irritate the digestive organs, and instead of soothing the parts and sustaining strength, will actually produce a diarrhea, etc. This has been frequently noticed in hospitals. When properly boiled until esch particle becomes so softened that the grain cannot be detected when eaten, but not cooked so much that the shape of the grain is destroyed, and the mass reduced to the appearance of paste, there are few articles of diet for the sick which can be made more acceptable to the taste of invalids than boiled rice.

Winter Succotash.—Take equal qnantities of dried sweet corn and of dried green beans. Wash and soak them separately, over night, in warm water. Add more water if necessary, in the morning, Boil the beans slowly for four or five hours, adding boiling water occasionslly. Cook the corn as you would without the beans. Then add the corn to the beans, and cook slowly, only long enough to combine them well. This is an excellent article of food, if carefully prepared, although not eqnal to succotash in the summer. Season with cream and salt.

Centennial Biscuits.—Make good corn mush, just as if you were going to eat it with milk. When it is lukewarm take a qnart of it and work in flour enongh to make a stiff dough; make into biscuits, put in your bake-pan and set in a warm place over night; bake in a very hot oven, and yon have the best and sweetest biscuits yon ever ate. Eat while hot for breakast.

Wheat Meal Unleavened Cakes (Gems).—To one quart of soft, cold water, add, by degrees, three pints of coarsely ground wheat meal. Stir rapidly, with a large spoon, three or four minutes, so as to incorporate a large amount of atmosphere. Dip out into iron baking molds, which have been heated hot and oiled. Bake immediately in an oven as hot as it can be and not burn, for 20 or 25 minntes. Diminish the heat after 15 minntes. Iron molds are better than tin. The small size, about three inches in length, and one and a half in width, is better than the larger sizes. The proportions of water and meal in this formula are for white wheat. For red wheat a little more meal is necessary. One-sixth corn meal is an improvement, in which case it needs a heaping measnre of meal to the water.

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SAN FRANCISCO

Saturday, November 25, 1876.

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The Week.

The week gives no answer to the election query which is in every one's mouth. The official count is progressing slowly, and, so far, peacably, in the contested Southern States, and the country must still patiently wait.

The week has seen another uprising of the Eastern war cloud, but to-day the skies seem clearing again. It seemed on Monday as though the Czar was making wholesale preparations for the American Thanksgiving. He was reported swelling his armies and borrowing money, and it was doubted whether there would be any Turkey left in Europe when his appetite was appeased. But now we have nothing less than the imperial word that the Southern bird is safe.

With the recurrence of the war rumor has come another advance in wheat, and now the even $2 are claimed confidently by holders of the choicest grain. Just at the moment there is a movement of California wheat to Australia to meet the shortage of crops there, and the promise is that the balance of our crop will go out clean, before the next harvest presses.

The week has been broken between showers and sunshine, the latter predominating.

RETURNED.—Our senior editor, Mr. Ewer, returned from the East on Monday of this week. He comes to us again in good health and spirits, and we trust will be much benefited by the long vacation which he has enjoyed.

Thanksgiving.

The early bird of winter holidays is at hand. Thanksgiving, the day of family reunions, the day when cane-bearing grandfather and table-drumming baby meet on a common level and look in opposite directions—up and down the course of time. The day when they who hold the homestead rejoice to see its walls embrace again the loved ones from afar. The day when the family tree is laden with the full round of its fruition; for then its branches show fruit, blossoms and tiny buds together clinging. The day when the devotional rejoice and give thanks. The day when the undevout rejoice and give not God the glory. The joys of Thanksgiving, like the rain from heaven, fall alike upon the thankful and those who take the joys and forget the thanksgiving. Such is the generous character of the blessings which are vouchsafed to men, and yet he who forgets to receive these gifts in the spirit which their bounty is fitted to invoke loses the greater share of the priceless bestowal.

If there is anything which this generation needs, it is the spirit of true thankfulness, the feeling of true gratitude. Rushing along the tide of prosperity, gathering the fruits of progress such as have been given to no generation since the world began, there has arisen a wide sentiment of self trust and confidence which would be glorious were it coupled with a wider recognition of the source whence come to men those qualities which compass success and advancement. It requires no creed to teach men to be thankful. It does not need a sermon to teach the thoughtful that there is a Power ruling in the affairs of men, whom the mind instinctively honors, and exalts itself in the honoring. To encourage this spirit of true thanksgiving among the people, the President of the United States and the Governor of California proclaim Thursday, November 30th, a day to be observed with thanksgiving and praise—a day to cease from ordinary avocations and give thanks to Divine Providence for the blessings of the year.

Thus, as is customary, comes the formal call for the favorite holiday of the American people. Christmas and New Year's we join the world in observing, but Thanksgiving is a day peculiarly our own. As our readers assemble in their happy homes and joy crowns the generous feast, it will be easy to give the thankful spirit possession of the heart and let it banish care and vain ambition. Then will come to mind the many blessings for which we may be thankful. We have peace while great nations are vexed with wars. We have safety while provinces have been the scenes of massacre and outrage. We have prosperity while upon the other hemisphere drouth, famine and the cyclone have slain their thousands and tens of thousands. Are not these fitting themes for thanksgiving?

In our own State, as our governor reminds us in his proclamation, may be found great blessings for which to thank Divine Providence. Favored of all the earth is California. During the year there have been taken many steps in our onward progress. Bright as our winter sunshine is our promise for the future. Outliving the disadvantages of our hasty growth, we are advancing on the plane of true prosperity. Resting from the building of colossal fortunes we are making homes. Forgetting, little by little, to count men by their millions, we are developing a truer standard of manhood and womanhood. The era of wealth to be seized and borne away is closed; the time of industry, giving its success toward ennobling and developing and beautifying our favored State, is one which calls for truest thanksgiving.

We have attempted to glorify the thankful spirit in our words above. This is, indeed, the greatest treasure which Thansgiving day can bestow. To all classes are its joys outheld. The man with broad acres reaching from the valley stream to the mountains, with his pastures filled with noble animals, his stables with fleet steeds and his granaries with wealth of golden grain, might easily be thankful, and if he looks beyond his wealth to the giver and holds his heritage as a trust for noble deeds, happy, indeed, he is. So too with the manufacturer whose workshops are filled during the long hours with the hum of profitable industry, and who looks from the elegance of his city mansion upon the breadth of his gardens with rare beauties of leaf and flower. So too the miner, who views the richness of his claim, the perfection of his machinery and feels in his pockets the weight of precious metal. To all these possessors of individual prosperity it would seem the thankful spirit would rise like the waters of the fountain, and refresh and beautify the man and all his deeds. Thus, indeed, should the thankful spirit rise with prosperity. Thus would wealth be noble and thus would the world bless the man who possesses it, because the truly thankful spirit will make the rich man a benefactor, and the community will praise him as their friend. Let this be the thought for the rich man's Thanksgiving day.

Valuable as is the thankful spirit to the abode of wealth, it is a hundredfold more a blessing when it inspires those whose lot is cast in less fruitful fields. The thankful spirit shines most brightly when its luster borrows nought from the gleam of gold. It comes like a benediction upon the happy home where homely comforts dwell and where hearts join with hands in labors for life and loved ones. By its light the cottage becomes a palace; the toil-stained hands are beautiful; and the face traced with lines of care is lighted with joys unspeakable. The home filled with the spirit of thanksgiving is foretaste of the home above. Let it be a cottage sweet with the perfume of vines and flows, let it be the single room of city toiler or the miner's hut, it matters not, for the thankful spirit may adorn them all. The spirit of contentment and thanksgiving will rest the tired frame and make the poor man rich indeed.

As we are preparing our laden tables for the day of thanksgiving bounty, let us not forget those whose measure of prosperity will not call them to a feast. All around us both in city and country there are homes whose inmates we can fill with thanksgiving, cheer, and joy. Think of the little eyes which never have beheld the comforts which we provide so lavishly; think of the little hands which will grasp nought but a crust unless we give them finer fare on the day of glad thanksgiving. The thankful spirit is generous. It longs to impart its joy. Remember the poor on the day of rejoicing. Thus will the day be twice blessed. Thus in giving thanks ourselves we may promote thanksgiving.

Figures on Grain Yields.

We doubt whether there are on record any better classified fignres on grain yield for any district of our State than those which we give below, prepared by W. A. T. Carter, of Point of Timber, averaging the returns from his part of Contra Costa county. Mr. Carter informed us some time ago that he was keeping a record of the fields which came under his threshing machinery. Twenty-four farms are brought into reckoning, and in the statement which he furnishes below, the different fields of each kind of grain are added together and the average given; then the yield of the best field and also the yield of the poorest. The following are the aggregates and averages:

GRAIN.	Number of acres.	Highest lbs. per acre.	Lowest lbs. per acre.	Average lbs. per acre.
WHEAT.				
Sonora, winter sown.....	1,058	2,118	507	1,172
do summer fallow.....	638	1,956	1,017	1,220
do volunteer.....	776	1,172	841	965
Club, winter sown.....	588	961	942	952
do summer fallow.....	162	1,900	1,161	1,475
Proper, winter sown.....	45	.....	.....	1,711
Australian, summer fallow...	70	.....	.....	1,620
BARLEY.				
Winter sown.....	210	2,333	1,300	1,790
Summer fallow.....	240	2,400	1,600	1,954
Volunteer.....	130	1,836	920	1,613

These figures are, of course, too narrow to serve as a basis of any very sure generalizations. We print them more to show how interesting a tabular statement of grain yields can be made. If other threshers would take the pains Mr. Carter has to reduce their accounts to totals and averages of each class of sowings, we should have a mass of statistics which would point to valuable conclusions concerning the chances in crops.

The figures given for Sonora wheat above embrace a larger acreage than the other sorts, and may perhaps warrant a deduction or two. The low average of volunteer is noticeable. Suppose we take summer fallow for the high mark. The advantage of the summer fallow over the ordinary winter sowing is, in figures, 52 pounds per acre on the average, which at $1.75 per cental for wheat would be an increased return of about 90 cents per acre. This would seem much smaller than is usually counted to the advantage of giving the land a rest for a year. Again, striking the difference between volunteer and a cultivated crop, we find it to be 217 pounds or $3 80 per acre in favor of cultivation. This would little more than cover the cost of plowing and seeding (allowing but one bushel to the acre for seed), and even this would require close figuring to show the profit of good cultivation over the so-called "shiftless volunteer system." These statistics evidently are adverse to good doctrine as laid down by agricultural critics. We should be pleased to have our readers discuss the points involved in this connection, and send us their conclusions.

As to the gross cash returns per acre, which are indicated by the above figures, it would seem that Sonora wheat yielded, from summer fallow, $21 35; from winter sown, $19 51; from volunteer, $16.88; counting wheat at $1.75 per cental. This price will be a high average for the season, although the price to-day (Tuesday) is $1 90@2 00 for shipping wheat in this market. Using Mr. Wilfred Page's estimates of the cost of producing and marketing wheat (RURAL PRESS, April 1st, 1876), the above yields would give a profit of $5.16 per acre on the summer fallow, $3.52 per acre on winter sown, and $1.98 on volunteer. It is hardly probable that so good results as this were obtained in all cases included in the above average, for much of the wheat was doubtless sold while the price was $1.50@1.60 in this market.

We give these estimates for the purpose of encouraging the practice of accurate figuring cost and profit in agricultural operations. Hardly anything, as we conceive it, is more valuable than the fuller introduction of the commercial method of close computation of profits and losses. Many lessons can be learned from the results, and many men, whose operations are not paying them decent wages, will make inquiry to see if their opportunities do not admit of more profitable production.

QUERIES AND REPLIES.

Measuring Hay.

EDITORS PRESS:—In the RURAL PRESS of November 18th I find an inquiry as to measuring hay in the stack. I send you the following rules. They may be of assistance to some farmer in measuring loose hay.

To find the number of tons of hay in round stacks: Find the area in square yards of the base, then multiply the area of the base by half the altitude of the stack in yards, and divide the product by 15; the quotient will be the number of tons.

To find the area of a circle: Multiply the square of the diameter by .7854, or the square of the circumference by .07958, and the product will be the area.

To find the number of tons in long, square stacks: Multiply the length in yards by the width in yards, and that by half the altitude in yards, and divide the product by 15; the quotient will be the number of tons.—W. W. CHAPMAN, Petalnma, Cal.

Diseased Hogs.

EDITORS PRESS:—My hogs are affected with a disease by which I have lost a good many. They are taken with a hacking cough and linger along from three to six weeks; then die. I have examined them and fail to find anything wrong with either throat or lungs. Will some of your readers tell me the name of the disease and remedy for it; also, what will destroy vermin on hogs?—L. O. WORTHINGTON, Los Banos, Cal.

Will some reader reply?

West Side Irrigation.

Reports come that the surveying party on the ground of the west side of the San Joaquin valley is pursuing its work and the character of their report to the governor is foreshadowed. From an engineer who recently left the survey of the West Side irrigation canal, now being prosecuted under the direction of Wm. Hammond Hall, chief engineer, the Stockton *Independent* learns some facts relative to the project. The estimated length of the canal from Tulare lake to Antioch is 185 miles. It will be navigable throughout the whole distance, as it is to be constructed to carry five feet depth of water. The present plan on which the survey is being made, contemplates a canal 126 feet wide on the bottom, with slopes of three feet horizontal to one in depth, on the outside, and one and one-half on the upper or in-side. The grade to be used will be three inches to the mile, giving, for the body of water, a current sufficient to run a large quantity without damaging the banks. For the first 10 miles from Tulare lake across the Summit lake divide, the average cutting will be 10 or 11 feet to the mile, growing lighter as it gets further out on the plains. It is thought the survey will be completed and the line finally located about the 1st of January, after which some months will be required to make up the estimates, plans, maps, profiles and report, the 1st of May being the time fixed for reporting to the governor of the State the result of the surveys. The party had reached a point opposite Hill's Ferry a week or more ago. The party is a very complete one, consisting of 23 men, with a full camping and transportation outfit. The line runs parallel with the San Joaquin and Kings River irrigation company's canal for about 40 or 50 miles, being from one to two miles distant from it, and about 30 feet higher in elevation. The scheme, as planned, is an immense one, and its final completion, if it is ever built, says the *Independent*, will be hailed with joy by every land owner in the valley. The vastness of its beneficial results cannot be fully realized or comprehended.

Fuchsia.

We have seen some magnificent fuchsia trees in this State. We have seen them heading high and assuming the upright form of true treehood, and we have seen them climbing walls, covering the sides of low houses with their beautiful pendants. We have seen fuchsias which we thought large and worth a boast until we read in a recent number of the London *Garden* an account which the Knight of Kerry writes from Valencia, Ireland, concerning a fuchsia which he has: "I believe that at this moment it is one of the finest sights in the shrub way that can be seen. It measures just 148 feet three inches round the extreme tips of its branches, and would have been considerably larger had it not been stopped at one side to form into an arch to cross over a walk. The south side of it is one blaze of most beautiful blossoms, a condition in which it has been for some time. It is now exactly 22 years since it was planted, and during that time nothing whatever has been done to further its growth. It has simply been left to itself."

This surpasses anything in the fuchsia line which has ever come under our observation, and yet there are wonders yet unheard of in this State. Can any reader beat the Irish fuchsia described above?

PERSONAL.—We learn from an English exchange that the British dairy farmers' association is fully organized, and with good prospects of success and usefulness. One of the secretaries is Mr. H. F. Moore, of the *Agricultural Gazette*, and an occasional contributor to the RURAL PRESS. Mr. Moore has promoted the idea of the British society from the beginning, and will contribute much to the success of the organization.

ON FILE.—"Notes from Riverside," D. W. McL.; "Working Dresses," N. E.

Golden Gate Park.

During the week we enjoyed a ride to the Golden Gate park with Hon. William Alvord, a member of the park commission. We take particular interest in the progress of this enterprise because it affords city people a much needed opportunity for recreation among scenes of natural beauty, and because the commissioners, in their efforts to transform the sand dunes upon which the park is laid into groves of trees and sodded slopes, are solving questions of much practical importance in many of our coast counties.

The ride over the sounding roadways of the park shows what an excellent material the red shale is for road making in pleasure grounds and private landscape gardening in localities where water can be had for sprinkling the road. We are familiar with this red shale road from memories of one of the handsomest college grounds in the East, the campus of Hamilton college. It affords a most pleasant contrast with the green of the trees and sward, and does not tire the eyes beneath full sunshine as does a glaring white roadway. The commissioners have this material in abundance within their own lands, and it is a fortunate possession in the way they have used it.

A view of the park shows that the commission is achieving general success in their efforts in reclaiming the sands. They are greatly crippled in their work from lack of funds, and the work of propagating and setting proper trees and plants, which should now be pushed rapidly, is almost arrested by the withholding of needed money. This seems unwise, because a year of propagating and planting, now in the infancy of the undertaking, will be worth ten in the future, so far as the enjoyment of the park by the present generation is concerned But, notwithstanding the limits which are placed upon present work, the growth which is being attained shows the wisdom of past efforts. One thing is demonstrated, and that is that when the transfer of property was made by which the city gained the title to the park, there was a richer inheritance gained than those who transferred it thought. The drifting sands are found to foster growth of tree and shrub and plant far better than was anticipated. The lupine, which was freely sown, obtained a good rooting, and a good idea of its progress can be had by contrasting the area of the park with the sand fields on either side, which have been left without efforts to reclaim. The shrub takes eager possession, branching low, and single plants are soon transformed into low mounds of verdure, effectually anchoring the loose sands beneath the circles. The lupine, although, of course, less handsome than smooth, swelling curves of green sward, still gives a pleasant color to the dunes and banishes the "barren wasteness," which is their normal characteristic. Besides the lupine there are other plants and shrubs which are being introduced, and many of them show signs of success.

Commissioner Alvord looks upon the reclamation of the sand dunes as the salvation of the city from the drifting sands which were rapidly progressing across the peninsula from the ocean to the bay. The tendency of the sands inward is easily demonstrated by observation, and it is indeed a salutary fact that the combat of the city with the sand should be conducted by the commissioners on the edge of the ocean instead of forcing future generations to fight it on our streets. We have spoken of the edge of the ocean; at this point the commissioners are now disputing the ground with the mild but persistent Pacific. They are constructing three lines of high brush fence, in parallel lines, above mark of high tide, and after thus inducing nature to raise barriers against itself they will build roadways upon the natural embankments and turn sea walls into boulevards. This is a very interesting feature of the present work of the commission, and its ultimate success is very desirable.

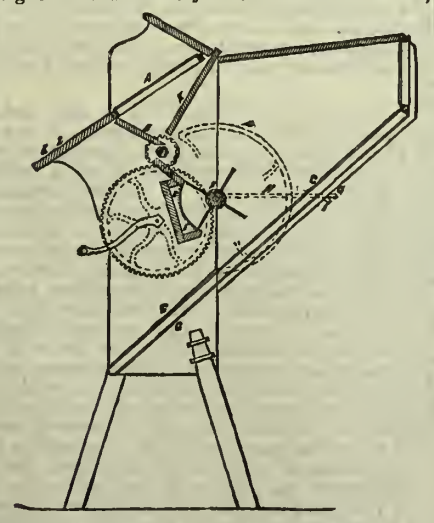
We were particularly interested in the growths, aside from lupine, which the commission are securing upon the sands. Some parts, under cover of trees and eminences which break the sand drift, are covered with a perfect sod, shorn like a lawn and beautiful with thickly matted grasses. Trees are succeeding admirably: acacias are in bloom and vigorous growth, pines and cypress and the different sorts of eucalyptus are thriving. In some favorable locations the trees have attained of 20 and 30 feet, and are growing rapidly. The disposition of these trees to grow on the open sands is now being determined, and they may be seen everywhere peeping up above the lupine. The prospect for their successful growth is very good. Pines, acacias and eucalypti are fresh and green even in the most exposed positions. The experiments which the commission is making in this direction are exceedingly valuable to our farmers in the coast counties. If they succeed there will be nothing to prevent the barren wastes upon the shores being transformed into profitable forests, not only beautifying the shores and furnishing valuable fuel, but serving to break the sweep of the trade winds and thus tempering the breezes to the thousands of dairy cattle upon our seaside pastures. The questions of experimental growth cannot be attempted except in a small way by individual farmers because of the loss which failure entails, but the results in this park can be acted upon by all who possess similar lands. Thus the park may become an experimental forest, and give us the growths which actual trial shows fitted for the peculiar conditions which prevail.

We trust the commission may be enabled to prosecute this useful work. Their roadways are excellent for the speeding of city horses. their grassy slopes and rustic bowers and flower plots will delight generations of city people. This is all good; but a matter we deem of more importance to the State at large is that of reclaiming drifting sands and transforming them into the forests we need so much. In this direction we hope to see the work prosecuted to the end.

Sand and Gravel Separator.

We illustrate on this page a simple machine for screening sand and separating gravel, overcoming the slow and tedious process now in use. It will screen sand wet or dry when it can be screened in no other way. It separates the gravel entirely from the sand and deposits the roofing gravel and coarse gravel for walks, etc., in separate places from the sand, thus saving the necessity of a second screening when roofing gravel is needed. It can be worked by one man to throw the sand and a boy to turn the crank.

In the engraving, *A* is a coarse screen where the sand is thrown in, and which keeps large pieces from passing into the machine. The sand passes down to the feeder, *B*, which carries it down to the cylinder, *F*, which is made with four rows of pins, and which revolves with velocity, spreading and separating the sand and gravel and throwing it against the screens, *G*, *G*, which being two screens, one over the other, the roofing gravel and sand passes through the upper screen (which is made half inch mesh or any other size needed), to the lower, which is six meshes to the inch or any size required. The roofing gravel passes down between the legs, which are enclosed, and the sand through the fine screen The coarse gravel passes down in front of the machine. *H* is a rapper or beater which strikes eight times with every revolution of the crank,



Improved Sand and Gravel Separator.

against the under part of the screens, and loosens any sand that may stick to the screen. *K* is a feed board which can be raised or lowered to regulate the flow of sand to the machine. *L* is a shelf for carrying off coarse gravel. A single screen four meshes to the inch is made, or any other size required, to be used for screening sand when roofing gravel is not wanted, allowing all the gravel to pass down in front of the machine.

This machine is adapted to the use of plasterers, bricklayers and contractors who have to prepare sand screened in the old way at the sand banks. A large sized machine is made to be run by horse or water power, with elevator to elevate the sand to the machine and elevator to carry the sand into bins, cars or other places of deposit. Chambers & Quinlan, of Decatur, Illinois, are the manufacturers.

A Fearful Calamity.

We give upon this page an illustration showing a peaceful scene on one of the islands of the eastern hemisphere. The tropical vegetation, the scanty clothing of the natives, the building made of the light growth of palm and rush, bespeak the dull heat and quiet of the tropics.

Although these tropical islands are free from the frequent storms of the temperate zones, they are from time to time visited by a most dire calamity in which wind and wave unite to bring destruction upon houses and inmates. The world is excited this week by the contemplation of one of these afflictions of unusual severity. It is the work of the dreaded cyclone, which both on land sea sweeps its ruinous course. Dispatches from Calcutta state that three large islands, namely, Hattiar, Sandeep and Dakhin Shababozhare, and numerous smaller islands, including Backergunge, Norkholly and Chittangong were entirely submerged by the storm wave of October 31st, as was also the mainland for five or six miles. These islands are all in or near the estuary of the river Mens. The largest, Dakbin Shahabozhare, was 500 sq. miles in extent, and had a population of about 240,000. Hattiar and Sandeep together had about 100,000 population. Up to 11 o'clock on the night of the 31st, there were



SCENE ON A TROPICAL ISLAND.

no signs of danger, but before midnight a wave swept over the country to a depth in many places of 20 feet, surprising people in their beds.

Dense groves of cocoanut and palm trees around the villages enabled many to save themselves by climbing among the branches. Some took refuge on the tops of their houses, but the water burst their houses asunder and swept them to sea. Some were carried thus across the channel ten miles to the Chittangong district, but the majority were never heard of again. The country is perfectly flat and almost every one perished who failed to reach trees. There is scarcely a household in these islands or the adjacent coast but lost many members. The cattle were all drowned, the boats are swept away, and the means of communication with other districts is destroyed. There is much distress among the survivors, which the government is relieving.

The government *Gazette* says wherever the storm wave passed, it is believed not one-third of the population survived. The islands have barely one-fourth their former inhabitants. The stench from the putrefying bodies is insufferable and a general outbreak of cholera is expected. A correspondent says this fear is happily not yet realized, except in Norkholly, where the disease has appeared.

Orange Hedge.—The *Florida Agriculturist* says: "The sour orange makes the quickest growing hedge that we can have, and it is also handsome. They should be planted close, say 12 inches apart, to prevent too much body. When about 18 inches high they should be topped and made to spread out. The side shoots should be cut half way through and bent in, and laced among the others, so as to make the fence thick. If well done not even a chicken can get through. The hedge should be kept about five feet high. The lime makes a still handsomer and closer hedge, but is more delicate than the sour orange. It can be used further south."

The American Cultivator.—We notice that our valued contemporary, the Boston *Cultivator*, has changed hands and will be issued in future as the *American Cultivator*. We wish it all success. We are gratified to know that the editorial services of Prof. Lesnder Wetherel will be retained in the agricultural chair. He is one of the foremost writers of the agricultural press, cultured and graceful in style, and gnided by a keen appreciation of the true and useful, as taught by science and practice. He is a worker whom we highly esteem.

The Dairymen's Association—No. 7.

Concluding Notes.

After the reading of the essays on "butte making," which have been printed in our last two issues, there were remarks made of which we have brief notes.

Hon. C. S. Abbott, of Monterey county, stated that his dairy houses were built of brick, with hollow walls, giving a space for dead air. They were thoroughly ceiled and well ventilated. He had come to use steam altogether for heating the rooms. It is clear that the tendency of stove heat is to heat the milk in the top pans most, and thus a condition of inequality is produced in the different racks of milk. By using steam the best may be applied at the bottom and the pipes so arranged as to distribute a very even warmth. In addition to the heating and power furnished for churning, Mr. Abbott finds the steam most effective for cleansing pans and other utensils. He constructs a tight chamber, puts all the pans, etc., into it, and then turns on the steam. He then knows that the utensils are properly scalded. Mr. Abbott also made mention of an apparatus he had contrived for dropping the water in the form of a light spray upon the butter worker, thus washing the butter.

Mr. Shattuck, a city merchant, being present and asked to give his opinion on the trade, noted, as one important point, the securing of good butter boxes. He said that much butter comes into the city covered with dirt because the boxes are loose jointed, or loose covered, or otherwise defective. This condition acts directly upon the price of the butter, and it would be found economical in many cases to throw away the old boxes and buy new, because of the increased price which perfectly clean butter brings.

There was but little discussion on the subject of cheese making, because at the session when this was called up several members were forced to be elsewhere. There were, however, several important notes on the subject introduced at other times.

I. C. Steele, of Steele Brothers, gave it as his opinion that much of the low price prevailing for cheese this fall was owing to the fact that many dairymen had changed over from butter to cheese making, and thus the supply was increased beyond the immediate demand. Again, this change had been made in many cases without having competent cheese makers to handle the milk, and thus much poor quality resulted.

Mr. Steele alluded to the difficulty of getting good rennet. He had used the South German rennet. At first it was good, but soon the importations became inferior and now he considered them unreliable. He then began using the "string rennet" and never found any better. When the feed dries, the cheese maker must have first-class rennet or he cannot control the milk.

Mr. Steele had noticed that in the latter part of the season he had difficulty to get the milk to whey off well. At first he thought it was dry feed, but has changed his mind, and thinks it is the result of the cows eating anise, for since this plant has disappeared from his pastures he has had no difficulty. The success in cheese, as in butter, depends greatly upon the character of the pastures. It is essential to be free from foul weeds, for many of these impair the quality of the milk.

Mr. E. A. Davison, of Gilroy, spoke of the need of improving the general quality of the cheese. He believed dairymen are now, in many cases, paying makers who are not fit to handle the milk. He found it an easy matter to make good cheese in this country. He had sold none this year less than 16 cents a pound. The cheese retains its flavor for a long time because the milk is so uniformly good. He considered it altogether easier to make good cheese in this State than in the East, because the maker is sure of good material, and the reason there is so much cheese sold low is because the makers do not do justice to the milk. He had no doubt great trouble arose from poor rennet and poor use of good rennet. He remembered a case where the owner of a dairy found the cheese leaking badly in the press, the butter separating from the curd, and did not know the reason. He told the man to tell his maker to let the curd stand 15 minutes after it reached the point at which he began to cut it. He did so and there was no more loss from leakage in the press. The trouble arose from imperfect coagulation. The rennet is a very important agent and much depends upon using it correctly. One trouble with a good many men who hire out here for cheese makers is, that they assume what they do not know and you cannot talk anything into them. Dairymen who are making cheese should satisfy themselves that their makers are competent, because the conditions for making good cheese are very favorable if they are properly used.

Marketing Dairy Products.

The subject of marketing dairy products was introduced by the following letter, which was read by the Secretary:

Members of the Dairymen's Association—Gentlemen:—We wish to call your attention to the present manner of marketing cheese during the fall months, which embraces a large portion of the season's make. You

Continued on Page 356.

Stock Breeders.

Choking.

This is especially common in cattle feeding on roots, potatoes, apples, pears and the like, because of the habit of jerking up the head to get the object back between the grinders. Pieces of leather, bone, etc., chewed wantonly by the cattle often slip back in the same way. Horses suffer mainly from badly shaped balls or sharp pointed bodies, dogs from bones. Ravenous feeders will choke on dry chaff, cut hay, etc., being imperfectly mixed with saliva, and the same will happen in cases of diseased teeth or salivary fistula or calculus.

Symptoms of pharyngeal and cervical choking.—When the object is arrested in the throat or neck there is great distress, staring eyes, slavering, violent coughing with expulsion of dung or urine, continuous efforts of swallowing, and, in cattle, tympany of the first stomach, which may suffocate the animal in 15 or 20 minutes. I have seen an animal die in five minutes when the object was lodged directly over the opening in the windpipe. In horses there is in addition an occasional shriek, and water returns by the nose when drinking is attempted. In omnivora and carnivora retching and vomiting are prominent symptoms. A careful examination along the furrow on the left side the neck will usually detect the offending object.

Symptoms of thoric choking.—If the object is lodged in that part of the gullet which lies in the chest, cough, slavering and gulping may be absent, but there are efforts at regurgitation and the discharge of liquids by the mouth (in horses the nose). This, with the inability to swallow solid food, is very characteristic. Tympany is usually slight, and there may be tremors at intervals.

Symptoms of choking with finely divided dry food.—These are the same as for solid masses, according to the situation, but in addition there is in the groove, on the left side of the neck, a diffuse soft yielding swelling, provided the obstruction is situated above the chest.

Treatment.—Sharp pointed bodies lodged in the throat must be carefully sought for and extracted. Solid objects in this region can usually be withdrawn with the hand. Have the animal held, with the head elevated into a line with the neck and the mouth held open with a balling iron; then the tongue being drawn out with the left hand, the right is passed through the mouth into the throat, and the middle finger hooked over the offending body, so as to withdraw it. If lodged still lower, it may often be worked up into the throat by pressure beneath it, with one hand in each furrow along the lower border of the neck. A vigorous jerk at the last, seconded by the action of the pharynx, will often lodge it in the mouth, but if not, it is easily extracted as above advised.

Should this fail, and tympany prove threatening, lose no time in gagging the animal. A smooth roller of wood, two inches in diameter, is tied into the month by cords carried from its ends around the top of the head—behind the horns in cattle. Swelling never increases dangerously with this applied, and in a few hours the obstruction usually passes on.

More prompt relief may be had by using a probang of leather or other material, with a spiral spring wire internally, the whole two-thirds of an inch in diameter, six feet long, and with one end enlarged to one and a half inches in diameter, and cup-shaped. This is oiled, and the head having been brought into a line with the neck, the halliug iron introduced and the tongue drawn out, the cup-shaped end is introduced and pushed on until the obstruction is reached. Steady pressure must be kept up on this for a few seconds, when it will yield, and should be passed into the stomach by introducing the probang to its whole length. If it relaxes, leave the animal for an hour or two gagged, and try again. In the horse the probang cannot be safely passed without casting, and it should never be passed on until by examination in the furrow, on the side of the neck, the operator has ascertained that it has entered the gullet, and is clear of and above the windpipe. For the small animals the probang must be made correspondingly small.

The use of whips and such like objects is very reprehensible, as being liable to tear the gullet. An effective probang may be constructed out of a piece of stiff new rope, a few bundles at the end of which have been opened out and tied back, so as to form a cup-shaped extremity. After being used, this may be hung up straight on several nails driven into the wall, and will be ready for the next occasion.

In choking with finely divided food the probang only packs it firmer, and gagging and time will rarely dislodge it. Pour water or well-boiled gruel down, and seek by manipulation to break up the mass and allow it to pass on little by little. Instruments have also been devised for extracting the obstructing mass. Failing otherwise, the gullet must be laid open, the offending matter extracted, the wounds sewed up and the animal fed for a time on liquids only.

Horses are sometimes choked by eggs given by foolish grooms. These may be punctured with a needle and then crushed between two solid bodies on different sides of the neck.

Prevention.—Besides the more obvious resort of withholding dangerous articles, the mere tying down of the head will prevent choking in cattle feeding on turnips, apples, etc. A loop of rope fixed to the ground is to be hung over the horn when such food is supplied. Solid food should be to a large extent withheld for a week after the relief of choking, until the slight irritation or inflammation has subsided. —*Prof. James Law, in Farmers' Veterinary Advisor.*

The Vineyard.

Notes on the Phylloxera.

The *British Trade Journal* says: The latest accounts from France say a great deal more about vine disease and bad weather than about wine. There is a great variety of misfortune among the wine growers, but all are unfortunate in some shape. In the department of the Haute Garonne it is the weather which causes the despair. A wet spring, a warm July, and again a wet autumn, are making havoc with the prospects of the vintage. In the Rhine district phylloxera is the *bete noire*, and the alarm it causes is more intense than at the first outbreak. The learned commission which have at various times sat on phylloxera professed to have stamped it out, and when the wine-growers find themselves deceived they turn round in the worst of humors on the commissioners. In the Gironde the evil is so serious that land has fallen in value at least one-half. The Chamber of Commerce of Bordeaux fear that in many of the best vineyards the yield will not be one-tenth the average. A new commission has been appointed, and experiments for the stamping out of phylloxera are being instituted by all the agricultural and learned societies. In order to promote concerted action, monthly and fortnightly reports are to be issued by the commission. There is another trouble on the mind of the French vigneron. It has been discovered that latterly he has taken to coloring his wines with substances of questionable salubrity, such as fuchsine and rosaniline. A syndicate of wine merchants in Paris have memorialized the Minister of Agriculture to put down the practice.

The *Journal of Chemistry* says: The damage done in France this year by the phylloxera is set down at $27,500,000, and this damage will go on increasing unless the French government can succeed better than science and M. Dumas in arresting the progress of this minute scourge. Never has the vine had such an enemy since the time of which Berenger sang:

> When Brennus came back here from Rome,
> These words he is said to have spoken:
> "We have conquered, my boys; and brought home
> A sprig of the vine for a token!"

The only wonder is that wine remains as cheap as it is, and that, in spite of heavy city dues, really good ordinary wine can be obtained in Paris for a franc a bottle. A reward of $60,000 is still open to any one who shall discover an effectual means of destroying the phylloxera, with whose manners and customs science is now intimately acquainted.

M. Eyre, Jr., Secretary State vinicultural association, writes as follows to the Napa *Register:* Monsieur Anto Forest, French Consul, in a recent letter, sends me the following extract from the *Official Journal of the French Republic*, of October 6th, 1876. The simple remedy can do no harm in any case, and I hope some of our Sonoma friends will plant the red field corn as suggested. While such planting will not eradicate the phylloxera, it may save the vines, and by pulling up the cornstalks in the fall, root and all, and burning them, the insect itself will be destroyed. In conjunction with the means lately recommended by Dr. Blake, we may at least hope for a cheap, easy mode for exterminating this pest. I translate the extract: "Mr. Gachez has written a note to Mr. Dumas (meeting of Academy of Sciences) relating to the destruction of the phylloxera by growing red maize between the rows of vines. 'After long and patient researches' says the author, 'I am convinced that the vines between the rows of which I had sown red maize were completely preserved from phylloxera. The insect abandoned the vine and attached itself to the roots of the maize. Last year, even, in the spring, the roots of the vines, since treated by this plan, were covered by phylloxera. This month, notwithstanding the most patient search, I have not been able to find a single individual of the species on them; but the roots of the maize were completely infested. The roots of maize sown in an adjoining field had no trace of phylloxera."

Cement Wine Casks.

The following investigation, which we find in an exchange, will interest some of our readers, who, if we mistake not, have made similar experiments: M. Bollert, near Zurich, in 1871, attempted to substitute casks made of cement for the usual wooden ones for storing wine, his cellar being moist and destructive to wood. The success of the experiment was such that all the wooden vessels have since been thus replaced. Among the advantages ascribed to the cement casks in addition to diminished cost of construction, are great economy of room, great solidity, without expense for repairs, diminished loss of the contents, and lightening of the work in the cellar. New wine is filled into them without hesitation, as no injurious effect is noticeable. The general plan of construction was first to coat suitably selected portions of the cellar walls roughly with cement mortar, and then with the best pure Portland cement, and to form the other portions of the vessels by pouring the material into suitably constructed wooden molds. He succeeded in rendering the finished vessels deceptively similar in external appearance to the wooden ones. After the interior was sufficiently hardened, they were filled with water for ten days to ascertain whether they were tight, and also to extract the caustic ingredients of the cement. The latter object was not, however, fully accomplished in this way, as the wine lost almost all its acidity in a few days, but soaking with a solution of carbonate of ammonia and subsequent rinsing with water proved much better, and the objection on this account was ultimately removed. Others have also employed them since then, and their introduction to the wine growers on the Mosel is also contemplated.

Burns and Scalds.

The following from Mr. Holmes' recent "Manual of Surgery" has the merit of giving much useful information in a concise form: At the time of the accident, the main indications are to exclude the air from the burned surface, to allay pain by opiates, and to give stimulants in such quantities as may be necessary. The applications which are in use for burns are too numerous to mention, and the choice of one or other of them will depend in a great measure on the depth of the burn. A mere superficial scorch is best treated by some warm solution applied on a thick rag and kept constantly moist. Goulard water with laudanum is perhaps as grateful as anything. Painting the surface with ink soon relieves the pain of a small superficial burn, or covering it with whitewash or some other similar substance, which will crust over it and completely exclude the air from it. Common flour thickly dredged on the part is a very good and handy application. But such crusts should not be applied over burned surfaces of the second degree, since their removal would soon become necessary, and this would drag off the epidermis. The bullæ should be pricked, the epidermis gently smoothed down, and some simple ointment put next the skin, or some oily substance which will not stick when it is necessary to change it. A very favorite application to these burns and to others of greater depth is the Carron oil, made by mixing lime water and linseed oil in equal parts, and deriving its name from its having come into extensive use at the great Carron foundry in the numerous burns occurring there. Oil of turpentine is a very good application to burns in which the surface of the skin is quite destroyed. But for the first few days I doubt whether anything is better than simply swathing the part in thick layers of cotton wool, which is prevented from sticking to the burned surface by some simple ointment (cerat. calaminæ is generally used), spread on thin soft linen or cambric, and covering the whole burned surface. When, after a few days, the discharge becomes foul, this dressing should be changed for some deodorizing or antiseptic, oily application, or the latter may be used from the first; but all the antiseptics I have yet seen used have been stimulating, and for the first few days it is desirable, I think, to avoid any local stimulation. The carbolized oil answers every indication better than any other substance I know of, but it should not be used too strong; for it may both prove too stimulating, and thus increase the discharge, and it may be absorbed, producing a black condition of the urine, and other symptoms of incipient poison. It is well, then, to begin with a very weak solution (about one to twelve), and if this does not correct the fetor its strength may be gradually increased, or a stronger solution of carbolic acid may be placed over the dressings.

Forests and Climate.—*Iron* says that important aid towards the settlement of a somewhat vexed question, having important economic and scientific bearings, is being rendered by the conservators of Indian forests. In Berar, in the center of the peninsula, there are upwards of 4,000 square miles of woodland, of which 660 miles are reserved by the government for State purposes. Not long ago, however, the whole was at the mercy of the natives, as by far the larger portion is still, and the wood was recklessly destroyed, while perhaps still greater destruction was effected by the frequent conflagrations, occasioned by carelessness on the part of charcoal burners and the prosecutors of the other native industries connected with the forest. Besides taking the 600 acres of reserve under their peculiar care, the authorities have exercised a rigid surveillance over the free forest for the purpose of suppressing the fires. The result has been that throughout the entire region natural reproduction is making steady progress; and the change in the features of the country thus occasioned is inducing remarkable climatic changes. There is a markedly increased rain-fall, which has modified the formerly extreme heat of the hot season, while in the cold season frosts are becoming common in open tracts. Although, as regards the reserve, water is much more plentiful than it was a few years ago, it is well worth observing, for its bearing upon the floods in southern France and elsewhere in Europe, that the sudden rise of the rivers which used to occur regularly after the rainy season, has, since 1871, occurred later and with less severity year by year. The cattle thrive better, and are less liable to disease than heretofore; but there is one drawback, that the reserve is becoming more unhealthy, from an increase of fever and dysentery, a natural result of dense and extensive forests in a tropical country.

Causes of Fever and Ague.

There has long existed a diversity of opinion in regard to the principal causes of intermittent fever. Many years ago it was generally supposed to be produced by the malaria of marshy districts, and a residence in their vicinity was considered hazardous. We will not say that the malaria from marshes has nothing to do with intermittent and other fevers; but we do not believe it is the chief cause of their development.

We are acquainted with many families that have lived for years on the very borders of marsh lands and have enjoyed perfect health all the time, while the residents of the high lands near them have suffered greatly from fevers.

We are somewhat skeptical as to the power of miasm arising from natural marshes to produce disease. Where the water of mill ponds is drawn out during the day, and a mass of vegetable matter is exposed to the heat of the sun, or where large masses of earth are thrown up from considerable depth below the surface, sickness is almost certain to prevail in the neighborhood, and often extends for miles around. Bating these causes of fever, which causes are entirely artificial, we do not believe that locality has much to do in producing them. Imprudence in dress, in diet, and in the habits of life generally, will sooner or later bring on disease; a little sooner, perhaps, in localities where the climate is not perfectly salubrious, since another element is added to those that already exist.

He who expects to enjoy immunity from illness by simply selecting a healthy place of residence without the exercise of prudence in living will be disappointed. There is no doubt that the principal cause of nearly every form of fever and of many other diseases is impure water. Second in order is the proximity to cesspools and decaying animal and vegetable matter. Third—exposure to chilly air of the evening and morning. Fourth—over exertion and insufficient sleep and rest. Fifth—want of attention to the condition of the bowels.—*Hall's Journal of Health.*

American Progress.—The London *Times*, of August 14th, gives prominence to a letter written by an English judge at the Centennial, who says he saw enough here to convince him that American manufacturers had been making remarkable strides during the past 20 years. Mr. Douglas Galton was a British judge in the group of railway appliances, and immediately upon his return home he penned this letter. He had previously visited this country years ago, and during the interval we all know that American manufacturing progress has been remarkable. He speaks of the great advance in our industries as shown by the growth in the amount of coal mined, and says that our higher wages, compared with England, are counterbalanced by the use of machinery to an extent much exceeding that generally in use in England. Observing the substitution of steel for iron rails on our railways, he candidly remarks that the new rails are almost all made in the United States, and that it is not probable that England will be called upon much longer to supply us with rails. He goes further, and, speaking of general manufactures, says England not only can no longer expect to get a market for her manufactures in the United States, but she must be prepared to find our manufacturers competing with her in every market to which they have access.

The Windings of Rivers.—Prof. James Thompson, at the meeting of the British association, exhibited a model to illustrate the action of rivers in modifying the forms of their windings. He said that most treatises on hydraulics speak of this action as if water consisted of particles impinging against the outer side of the bend, and so wearing it away. This is objectionable, as water does not impinge but presses against the outer bank. The action is more properly as follows: The stream lines of water flow less rapidly from the center to the outer, and more rapidly from the center to the inner side. In consequence of this and fluid friction, there is a flow of water at the surface from the inner to the outer side, and below from the outer to the inner. This causes the earth at the outer side to be transferred along the bottom to the inner bank. He illustrated these remarks by the behavior of threads attached to pins stuck in at different parts of the bend of the model river. The bottom threads inclined towards the inner side, while the upper threads inclined slightly towards the outer. The actual state of matters could also be seen from the mud raised by the flow of the stream in the model.

Watering the Desert.—It appears from recent explorations and surveys that the work of turning the Atlantic ocean into the Great Desert of Africa is not so formidable an undertaking as was at first supposed. It is only necessary to cut a channel through a bar about 300 yards wide. The level of the desert immediately behind this obstruction is some 330 feet below the sea level, which will give a pretty fair depth of water over which to steam into the fertile heart of Africa.

On Weather Insurance—A tornado recently occurred near Orleans, France, destroying some $40,000 worth of property, and doing great damage to crops. M. Faye suggests that weather insurance companies, guaranteeing losses in such cases, would be useful institutions.

Charcoal Instead of Lime.

A very important discovery has been made that charcoal, animal or vegetable, is a better agent than lime for the removal of the hair from hides, preparatory to tanning. An exchange assures us that the depilation of hides with charcoal appears likely to supersede altogether the usual lime process. As is well known, charcoal has the property to take up large quantities of oxygen from the atmospheric air, and the oxygen in this form seems to exert a chemical influence on the fatty substance present in the neighborhood of the glands of the hair roots. An oxidation takes place in the pores of the skin, which destroys the glands and loosens the hair. Finely powdered charcoal is mixed with sufficient water to make a thin paste, and the hides immersed for four or five days and well turned. Hides treated with charcoal require no other operation, as in the case of the lime process, and after being washed with water, they are ready for tanning. Animal or vegetable charcoal can be used in any quantity, having no deleterious property whatsoever. For each hide, six or ten pounds with the necessary quantity of water are sufficient, and the temperature to be maintained is 61 or 70 degrees Fahr. This information may be of great value to the people in the interior of the State, who occupy themselves in the tanning of that common leather, known in America as *suela*. There is always a great demand for this leather in the manufacture of saddles and accoutrements for the cattle-men and travelers, also for trunks, shoes, chair bottoms, and other articles of utility. The demand is so great that the suelas have, most of them, to be brought from Guayaquil, Payta, and other foreign places, where it seems they can be prepared more cheaply than by our native workmen. By the use of charcoal, which is much cheaper and more readily obtained than lime, the tanners will be placed on a more advantageous footing for producing the suelas at a considerably less cost than hitherto. They will then be able to sell the article at a cheaper price and yet secure quite as much profit as before. It is a matter for surprise, that so remunerative a trade as the tanning of hides into leather has not yet become a leading industry in this State. Hides can be had in great abundance for this purpose, and the bark for the conversion of hides into leather, can be obtained all along the sea-shore, and of the best quality. The mangrove or mangle plant, the bark of which is thus used, is present everywhere on the coast.—*Panama Star.*

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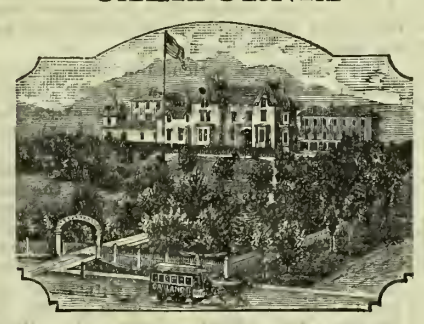
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	AMOUNT.	PREMIUMS.
Risks written to Oct. 1, '76	$5,181,591.00	$114,445.57
Less Amount Canceled	300,644.00	6,297.50
Amount in force, Oct. 1, '76	$4,880,947.00	$108,148.07
Losses paid		$7,251.00

CASH PLAN.

	AMOUNT.	PREMIUMS.
Risks written to Oct. 1, '76	$2,585,914.19	$51,606.96
Less Canceled and Expired	976,908.00	$19,538.16
Amount in force, Oct. 1, '76	$1,609,006.19	$32,068.80
Losses paid		$10,153.71

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J. C. Merryfield.....Dixon
E. W. Steele.....San Luis Obispo
C. S. Abbott.....Monterey
Dr. T. Flint.....Hollister

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Authorized Capital, $5,000,000.

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The Bank was opened on the first of August, 1874, for the transaction of general banking business.

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CALVERT'S CARBOLIC

SHEEP WASH,

$2 Per Gallon.

After dipping the Sheep, is useful for Preserving Wet Hides, Destroying the Vine Pest, and for Disinfecting Purposes, Etc.

T. W. JACKSON, S. F., Sole Agent for California and Nevada.

BLOOMINGTON NURSERY, F. K. PHŒNIX, Bloomington, Ill. Price lists free. Four Catalogues, 25c.

Continued from Page 353.

have not the perplexing question of *surplus* to meet, for you are aware there is not a sufficiency produced upon this coast to meet the requirements of home market. Notwithstanding, the market is gorged—nay disgusted, sales sluggish, the cheese deteriorated, returns varied, the best prices denied the producer and the aggregated results unsatisfactory and discouraging. Is the producer morbid and unreasonable? or is the present manner of marketing at fault. We believe the difficulty mainly lies in the latter, and within your probable power to obviate, and falls to your special province as a duty in behalf of the producer to make an effort.

As our grounds are merely suggestive, we ask you to consider the plan of creating a responsible and competent head, around which be placed such safeguards as will secure the producer against any widespread loss, or as far as possible any serious loss; who shall receive this large product, responsible for its care and keeping, and competent to place it judiciously upon the market, care being taken to meet its demands, thus establishing uniformity of price.

A *good* product, fair and reasonable returns, should be the motto of the producer. The better the article, at just and reasonable rates, the larger the consumption.

Guarding with watchful eye our Eastern competitor, the day will doubtless come when he will be justly regarded as an interlo er.

Can the requisite proportion of the producing class be enlisted, we believe you fully competent to bring about a more satisfactory condition. We look to you for an effort in that direction. Wrong steps may be taken, but experience will correct them. If it will pay to produce cheese, it will pay to look to its care and marketing.

As it would be difficult to make the present condition any worse than it now is, we see but little if any risk in an attempt to improve it.

We respectfully submit the matter to your judgment, and pledge our co-operation in your efforts.

C. H. IVINS.

Cambria, San Luis Obispo Co., Sept. 26th, 1876.

Owing to the small number present at this year's meeting, it was not deemed advisable to enter upon the subject of marketing until a wider representation of the interest was represented. Although it may not, for various reasons, be advisable to entrust the marketing to one agent, as the writer above suggests, still there are many abuses in the present system of transportation and marketing which should be thoroughly ventilated and corrected. It is to be hoped that next year these subjects will be brought before the society in a prominent manner and meet wise action.

With this article our report of the session of the first annual meeting of the California dairymen's association closes. As is common with new movements, the first meeting was small in attendance but the interest manifested was very promising. If the discussions had been participated in by three times the number of practical men, the information and comparison of practices would have been wonderfully increased. It is expected that by another year the society will have so grown upon the minds of dairymen, as a means of progress and advancement of their interests, that the membership will embrace all who desire the elevation of the dairy in practice and profit.

Before the meeting adjourned votes of thanks were tendered to the retiring president, Mr. Maillard, for his valuable services, to the treasurer, Mr. Page, and to the secretary.

The society received from membership fees more than enough to meet expenses for hall rent and printing of circulars, and there is a small balance in the hands of the treasurer.

The Monterey Fair—No. 2.

EDITORS PRESS:—C. P. Bailey, president and business manager of the San Jose glove and robe factory, who has attended most of the Pacific State fairs for the same purpose, made here an exhibit of Angora goats. Two of these were of especial note, viz.: the buck Soledad and the ewe Queen of Monterey, both are unusually fine, and the latter probably the best, all points considered, in the world. But as this flock is well known and as we propose at some future time to devote an entire article to this and the flock of Landrum & Rogers, as illustrating the Angora interests of this coast, we shall refrain from any particular descriptions at this time, and pass by, remarking that it was an exhibition of goats which cannot be excelled in the known world. We would correct, by request, the statement of the RURAL PRESS that these goats are the joint property of Mr. B. and the San Jose glove factory, as Mr. B. is the sole owner, having about 1,000 pure bloods and 3,000 of graded goats in Monterey and Mariposa counties.

The Merino and Southdown sheep were said by competent judges to be very fine. As for ourselves, we make no pretensions to sheep knowledge, have never taken kindly to this study, having all inclination in this direction pounded out of us in a Vermont barn-yard when we were a boy by a gentleman sheep belonging to our paternal uncle. As to the Merinos, if their tempers are half as "kinky" as their wool, and if every "new kink" is a virtue in wool, we should say that this lot was bred to points in this direction about as far as it would be safe or profitable, for the simple reason that we should suppose that there is a maximum point in the relations between profit and danger, which it would not be safe to disregard. However, we think that appearances were deceptive in this case, as well as in so many other, and that the laws of "correspondence" so often quoted did not hold good in this case, and in short, the sheep were harmless. The only description of them we shall attempt, is that they were ugly wads of kinky wool, with four short, hairy pegs underneath. We were somewhat disappointed in the size of this breed, having supposed from the pictures of them in the RURAL PRESS that they were much larger. Perhaps this enlarged impression of ours arose from our large estimation of this journal, and the expectation of always finding large things in it, or it might arise from, not our own impression merely, but rather from an actual enlargement produced by the reflections of surrounding merits. But, as we may not strike the right solution we will let the matter pass, by remarking that the Southdowns looked more familiar to us, much more "sheepy" according to our ideas.

We turned from the sheep well satisfied to the swine stalls, and of the swine exhibit we can speak more understandingly and with more confidence. Our favorable opinion of these swine may be based more upon principles of human than of swine nature (this nature, however, may be more similar than we usually suppose), for it is declared in regard to man that "all men shall praise thee when thou dost well for thyself," and there were here two pure blood Essex pigs, belonging to J. R. Hebbron, who had certainly done well for themselves—a sow and her swinish lord—the two constituting a regular pork factory (of course I mean in quantity of material). If the latter pig had lived in mythological times, no doubt the universe would have been built on his broad back in preference to that of any other animal; but I did not discover in him the least approximation to such an idea, but rather of the opposite one, that the earth could better bear him than he the earth, and, as an enforcement of this opinion, he continued to lie upon the ground until the opposite, indignant opinions of his herder, operating through the toes of his boots, effected a change of base in the whole pork question.

Persons feeling the influences of the race course upon them coming to these stalls, were disposed to back their guesses of this pig's weight (ranging among all the specific numbers supposed to be contained in the numerical field of four to five hundred) by their cash. But as we saw none of this change hands, we think the cash part was purely hypothetical. There were other pigs here, which, no doubt, had they enjoyed the same privileges of birth and education, would have attracted as much attention as this pair did.

We will pass now to the agricultural exhibit of implements, with a slight inclusion of some heavy Buff Cochin chickens, which were very fine and drew much attention.

The exhibit of agricultural implements at this fair, though not large, was good. The experience of many exhibitors at previous fairs had taught them the expediency of exhibiting only those articles which have stood the test of impartial criticism. There were horse-rakes, seed-sowers, drills, harrows and all the large and smaller implements of a diversified husbandry. We shall mention only those which seemed to attract the particular attention of the farmers of this valley, as being adapted to their especial wants in this direction. And first in importance were the gang plows. The Eureka, the John Deere, the Buford and the Pajaronian, were those which attracted the most attention. All these plows were thoroughly tested in the field and their respective merits fully noted by men of large experience in their use. By reference to the premium list it will be seen that the award for superiority was to the Eureka. This decision of the committee of awards was a matter of surprise to almost every farmer there who had witnessed the working of the Pajaronian. Speaking from our own observation and experience (and we claim to be a practical farmer), we believe the Pajaronian to be equal in all and superior in most of its points to any other plow exhibited. It is, first, very light, being constructed almost entirely of wood, and was 150 pounds lighter than any other plow on the field. Second, its beams being of wood and short, there is no spring of either plow in the hard ground. Third, it has a greater working range, being by the single backward motion of a lever thrown into the ground, up to the beam, if desired, or by the forward movement of the same lever, by the foot of the driver, the plows raised eight inches clear of the ground. Fourth, the plows in every position are longitudinally level with the ground, and if plowing on a side hill, can be instantly adjusted to any position, inclined or perpendicular to the surface, by the movement of another lever, on the other side of the driver. Fifth, any kind of plow can be used on it, by the loosening of two bolts, and one plow removed and another put on, or the plow can be set to or from land by the simple loosening of a bolt. Sixth, it is light draft, the team being close to the plows. In noting these points, we do not intend to detract in the least from the merits of the other plows mentioned. The Eureka and John Deere are excellent plows, and our preference in the order named, next to the Pajaronian. These criticisms and commendations are not prompted by any motive of interest, for neither the PRESS nor its reporter has been paid one dollar for advertisement or otherwise. But these are the decisions of our judgment, and are given to your readers as an award to merit and to advance the the interests of practical farming. It is manufactured by Neil McLean, of Watsonville; a home invention not patented, and is in general use in the Pajaro valley.

The straw-burning steam thresher of Brown & Co. was another new and valuable invention. It is an ordinary tubular boiler placed upon strong axles and wheels, the latter so controlled by an ordinary brake, that when the machine is set this brake is thrown on, and no other clamping is necessary to render it perfectly firm and immovable. The engine is a top bed plate, and the pump and throttle on one side, and after the throttle is opened for work, the steam is let on or shut off by a lever slide which is handled in front of the furnace. The door of the furnace is self-shutting. This door is hung at the bottom and has an inclination inward towards the top like the one side of the roof of a house, and at an angle of about 50 degrees. When the straw is pushed against it the top of the door drops inward and down until the fork is removed, when it instantly closes and keeps all cold air from the tubes. This movement is accomplished by a small weight attached to the extension of the axis of the door, so bent as to form a lever projecting at right angles, the weight a little more than balancing the door, and thus effectually closing it. This machine is manufactured in Salinas City by Brown & Bro., who are the inventors and patentees.

We shall close these notes of exhibits at the fair grounds by merely alluding to an artesian well-boring machine which was an exhibit invented by E. Hoagland a patent through Dewey & Co. This is a simple and ingenious machine and seems to be well adopted to the purpose designed. But as it is to be used in sinking several wells in the Pajaro valley we defer any further remarks until we can witness its operations. In the next we shall close our notes upon this fair by noticing the exhibits at the pavilion in the city, together with some notices of improvements completed in this valley, etc.

C. N. W.

Watsonville, Nov. 20th.

Rabbits in Australia.

While our farmers often have cause to mourn the inroads of rabbits upon their growing crops, it is a consolation perhaps that we are not alone in the affliction. In South Australia the rabbit question is one of great moment and laws have been passed for extermination, something after the manner of our squirrel laws. It seems that these have been ineffectual, because there has been no provision to attack them on government land and consequently enough have grown there to continually restock the colony. Various other things have been proposed, as we read in the Adelaide *Observer* of recent date: "The rabbits, confined within proper limits, are really valuable animals, and might, we venture to think, be made a source of income to the colony, and their rapid multiplication is due in a great measure to the imperfect system of destruction which prevails. Successful rabbit catching, like any other similar hunting, if carried on for profit and not for mere sport, demands a considerable amount of skill. That this has not been brought to bear here, the fact of the scarcity of rabbits in the Adelaide market and their high price, notwithstanding their undoubted abundance, is a conclusive proof. Happily, every one is not of the same opinion as Mr. Coglin with respect to their utility as an article of diet. In London hundreds of rabbits are consumed by every class of the community, especially by working men. We have no doubt the same would be the case here if an abundant supply at a moderate price could be placed in the market. In Ostend, Heligoland and Havant, from which the English and French markets are supplied, rabbit catching is a regular and by no means unprofitable trade. Here it might become the same if some of our colonists would only turn their attention to the matter, or if Mr. Hawker's suggestion of bringing out professional rabbit catchers to the colony were adopted. Such a suggestion may seem perhaps trivial, but it must not be forgotten that profitableness is one material test of the importance of any occupation, and a systematic trade in rabbits would undoubtedly be remunerative. Not only could a considerable income be derived from supplying the Adelaide market, but so far as we can see there is no reason why the meat should not be preserved. We have already an export trade in tinned beef and mutton. Why should not rabbits be prepared in the same way? If this were done the tinned meat would, if moderate in price, find a ready sale in Europe and elsewhere. It would also probably be purchased by captains of vessels, to whom it would prove a welcome addition to the limited *cuisine* of shipboard. But the flesh is not the only valuable part of the animal. The skins are a readily marketable commodity in Europe, where they are extensively used in the making of hats and imitation furs. There might, of course, be difficulties in exporting them in the large quantities necessary to make the trade profitable, but these would not be unsurmountable. By a little energy and enterprise the rabbits could easily be kept within proper bounds, and what is now a nuisance might become a profitable source of income."

There can be no doubt that it is true, as a general rule, that if rabbits can be made worth catching they will soon be hunted to death. The trouble is to turn them to profit. If canned rabbit can be made a merchantable article, we can fairly compete with Australia; and if canned rabbit, why not canned squirrel? Speaking of squirrels, we can furnish enough to keep all Europe in a stew for an indefinite period. These resources of our State are ample; who will develop them?

Fruit Pollen.

Among the interesting questions by no means as yet definitely settled, says the N. Y. *Independent*, is that which refers to the immediate effect of pollen on fruits. Up to a few years ago it was thought that there was no immediate effect, and that the influence was only seen in the plants produced from the seed. But in the case of the Indian corn it is clearly proved that there is an influence direct on the seed itself. It is also thought that there is an influence on pumpkins, squashes, and other cucurbitaceous plants; but this is little more than an impression derived from cultivators, and, so far as we know, there have been no experiments directly made to test the point. There have been many curious facts placed on record that seem to be explicable on no other theory; but it is a good rule not to accept a guess in cases where direct experiment can be made. In the Indian corn the change immediately effected seems confined to the seed. The carpellary structure remains the same. If the cucurbitaceæ, or other class of plants of a somewhat similar character, had their fruits immediately affected, it would be regarded as more remarkable than that the naked seed of corn should change. Mr. C. W. Garfield, of the Michigan agricultural college, deserves the credit of attempting direct experiments with the apple, and he believes there was a direct effect on the fruit. He made ten crosses, of ten specimens in each cross. There appears to have been ninety-seven fruit resulting. Only three kinds showed any change from the peculiarities of the female parent. In one it was the pollen of the Wagener variety on a Tallman Sweet. Unfortunately, the Tallman Sweet is known to be variable, independent of cross fertilization, so that this needs to be gone over again. If a number of trials between the two always had the same result, it would be conclusive. Another was a Tallman Sweet on a Red Astrachan. The distinct character of these apples renders the result interesting. The apples were mild, color (deep red in the female, yellow in the male) modified, and the form flat. There is no doubt of a great probability here; but it would be still well to repeat the experiment with the same two kinds another year. The other case in which change was noted was where the Wagener was the female, and the Tallman Sweet the male parent. The change was in respect to flavor and color. These are among the most interesting facts we have met with in relation to this subject. Flavor (that is, in respect to "sour or sweet"), form, and color will vary so, even in the same variety and when there is no thought of cross-fertilizing agency, that it would be safe to ask for a few more experiments before regarding the matter settled. There are other points not subject to inherent variation, that it would be as well to watch the effect of hybridization on.

General News Items.

A portion of the Sonoma county prismoidal railway is now in operation.

The telegraph informs us that from 120,000 to 215,000 lives were lost in the cyclone in India.

Small-pox has not by any means entirely disappeared in this city. There were several deaths last week.

Ex-Pension Agent H. C. Bennett has been indicted by the Grand Jury, and action has been begun against his bondsmen.

The Postal Commission, appointed under an act of Congress to ascertain how the postal service can be improved, is now holding sessions in this city.

Mrs. Eliza Ross, wife of Captain George Ross of the bark *Lizzie Williams*, fell off the Oakland pier on Thursday night, and was drowned before aid could be procured.

The San Francisco general fund, school fund and street fund are exhausted at present, but Treasurer Hubert anticipates that before the 20th of next month sufficient money will stand to their credit to enable him to meet all demands.

A very serious accident occurred at Sacramento on Saturday night last, in which several persons were killed, and over 100 badly hurt. The floor of a concert hall gave way and precipitated some 500 persons to the story below, killing some and wounding others.

The suspension of the Continental life insurance company affects some 70,000 policy-holders, as well as its other creditors. Although the managers are of the opinion that the policy holders will lose nothing, we doubt very much whether the people who have been paying their annual premiums for eight or ten years will be much comforted by this assurance.

Superior Photographs.

To be sure of a good picture, you have only to patronize G. D. Morse's Palace of Art, at No. 417 Montgomery street, S. F. The publishers of this journal have patronized Mr. Morse for many years, and do not hesitate to say that his pictures are not excelled by any we have seen produced in this or any other country. No one can ask for a better man to patronize than Mr Morse. He is affable and respectful to all.

For the rich with few children it may do to buy a shoe without Tips, but to those who are blessed with many children and little money it is ruinous to buy any other than SILVER TIPPED Shoes. Also try Wire Quilted Soles.

25 MIXED CARDS, with name neatly printed 10 cents. C. SMITH & CO., Green Brook, N. J

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

San Francisco, Wednesday, Nov. 22d, 1876.

There has been but little change in the markets of the week, except in the matter of Wheat. On Monday there was a renewal of the war rumors in the East, the Liverpool price showed a tendency to advance, and the holders of Wheat in this and the interior markets elevated their views. Transactions have been made at a considerable advance over last week's prices, as may be seen below. The even figures, $2 per ctl is now quotable for fine Milling Wheat. To-day the war outlook assumes a milder phase, as the Czar affirms "on his sacred honor" he has no designs upon Constantinople. Thus the matter stands at this writing. Holders of Wheat are firm.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	Cal. Average.	Club.
Thursday	10s 3d@10s 5d	10s 5d@10s 9d
Friday	10s 4d@10s 6d	10s 6d@10s 8d
Saturday	10s 4d@10s 6d	10s 6d@10s 9d
Monday	10s 4d@10s 6d	10s 6d@10s 9d
Tuesday	10s 4d@10s 6d	10s 6d@10s 9d
Wednesday	10s 4d@10s 6d	10s 6d@10s 9d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	9s 9d@10s —	10s 3d@10s 9d
1875	10s 8d@11s 1d	11s 3d@11s 7d
1876	10s 4d@10s 6d	10s 6d@10s 9d

The Foreign Review.

London, November 20th.—The *Mark Lane Express*, in its weekly review of the British corn trade, says: The supplies of Wheat in the country markets have been again small, but again its condition has improved. The influence of the frosty weather and dullness has been the prevailing feature of the Provincial trade, for both Wheat and feeding Corn. Several markets quoted a decline of a shilling per quarter for English Wheat. Imports for the last week into London have been more liberal than lately, but the supply of American wheat was comparatively trifling, against the large arrivals of Russian and Indian. The approaching closing of Russian navigation, will make America our main source of supply for red Wheat. It remains to be seen whether she will ship freely at the present prices, or await advanced values. The local trade has revived, owing to the political uneasiness, London receiving considerably over the usual proportion of imports in consequence of the heavy Prussian and East Indian shipments. Oats advanced six pence per quarter, despite the increased arrivals but Maize receded six pence, owing to the slackened demand. The arrivals of Wheat off the coast were very moderate during the week, and an improvement of one shilling and sixpence to two shillings occurred.

New York Grain Market.

New York, November 20th.—The market is well supplied with new Wheat, but there is not much accumulation of stock, while the quantity in transit for the seaboard is fully 2,000,000 bushels less than at the corresponding period last year. The canals are to be closed December 1st, and we shall go into the winter with a moderate quantity in store. Spring Wheat is sold at $1 20 to $1.33, and winter at $1.20 to $1 40, with higher prices now demanded. Corn is firmer at 62½c for new and old. Rice has been very active for the Continent, with sales of at least 200 000 bushels, deliverable here and at Philadelphia, closing at 80@90c, with freight to Hamburg and Bremen at 6s 6d per quarter, in bags. Barley sold freely at 78c for poor Western up to $1.20 for prime Canada, with some low-priced bought for England, for feeding purposes. Flour advanced, with a good export trade, and Hog products are higher all around.

Chicago Grain Market.

Chicago, November 19th.—The Wheat market during the past week has been feverish and excited, making sharp advances as the indications favor a European war, and settling down again on rumors of a more peaceful character. Prices have been held firm, with less disposition to sell short. Buyers have taken every advantage of the war-like advices to advance the market; but the entire advance has not been maintained. The market opened the first of the week at $1.10¼, and, after selling up to $1 12½, closed firm at $1 12⅝. Receipts of Wheat were 490,000; shipments, 360,000 bushels. Corn has been active and firm throughout. The week opened at 43¼c, sold up to 46¼c, and closed at 45¾c.

Oregon Wheat Market.

The Portland *Oregonian*, of Nov. 11th, says: The Wheat receipts at this point so far this season, reckoning flour, are estimated by good judges to be about 1,000 000 bushels, and the shipment hence amounts to near 800,000 bushels, leaving in store and on board vessels now landing about 200,000 bushels. The *Reporter* estimated the amount stored in the valley warehouses up to October 15th at 87,000 tons, which, if near correct, will give a greater surplus for 1876 than Oregon has ever produced before, but excellent judges consider the figures entirely too great, as it is not at all probable that the surplus will come within a half or three quarters of a million bushels of being as large as in 1875.

Freights and Charters.

There has been more activity in the freight market during the week than for some time past, says the *Commercial News*, but the demand has been principally confined to outside business. Wheat charters to Europe have been at a standstill. At the close we have 47,675 tons in port under engagement to load wheat, 51,368 tons disengaged and 8,184 tons miscellaneous. The latest charters reported are: Br ship Arundel Castle, 1,042 tons, wheat to Cork for orders, owners' account. Ship Erlo the Red, 1 582 tons, wheat to Liverpool or Havre, prior to arrival, £3 5s. Br ship Ambrose, 862 tons, wheat to Cork for orders, owners' account. Br ship Horsa, 1,094 tons, wheat to Cork via Portland, owners' account, Bark Helena, 603 tons, wheat to Sydney, £1 8s. Br bark Anglo-Norman, 864 tons, wheat to Cork for orders, prior to arrival, £3 10s. Bktne Nellie M. Slade, 560 tons, wheat and flour to Sydney, private. Bktne W. H. Dietz, 487 tons, wheat to Sydney for orders, £1 8s. Ship Conqueror, 1,621 tons, to load wheat on owners' account; the Br ship Belfast, 1,975 tons, to load wheat, terms private, both to Cork for orders.

Wheat for Australia.

It would seem that the consignments of Wheat sent down to the Australian colonies since the opening of the new crop year had met with good success. The total shipments made in that direction for the season to date have amounted to 24,072 centals, valued at $38,605. A small quantity was also sent to New Zealand. It must be borne in mind that the above was shipped on the regular mail steamers and at high freight rates. Lately a movement has been on foot to charter several handy-sized vessels and send them down to the colonies with full cargoes. Yesterday we reported the engagement of the barkentines Wm. M. Dietz and Nellie M. Slade, to load with the cereal for Sydney. These, together with the bark Helena, which has been taken for the same purpose, will make a respectable fleet. The latest mail advices seem to speak discouragingly of further wheat shipments from San Francisco. The surplus available from last season was estimated at 50,000 tons, but it was thought that dronths would considerably injure the growing crops in South Australia. Anticipation of this had already led to an advance in the principal markets. We trust that these ventures may be crowned with success.

Eastern Wool Markets.

New York, November 20th.—The Wool market opened very quiet this week, but on Wednesday took a favorable turn, for quite a number of manufacturers entered upon the market and speculators exhibited more disposition to operate. Since then there has been a steady, good inquiry, and the aggregate business makes a very fair exhibit. Further advices per cable state that at London the advance at the opening is still maintained. From the Cape it is reported that all the Wool purchased for the American market has been resold and shipped to London, owing to the high prices ruling in that city. The disturbed condition of political affairs in Europe has given a greater degree of firmness to Carpet stock, and holders are now unwilling to part with their stocks, unless at full market rates. Sales for the week are 95 bales Carpet, about 31c; 138,000 lbs Fall California, 16@22½c; 1 000 lbs lambs' do., 27c; 1.500 lbs Colorado, part at 18c; 284 000 lbs Texas, at 24½@28c for Eastern and 23@24c for Western; 58 bales super pulled, 35c; 30,000 lbs XX and above Ohio, 47½c; 4 000 lbs O io and Pennsylvania Combing, 50c; and 202 bales Cape, 48 do. Montevideo, 357 do. Donskoi, 50,000 lbs California pulled, 365 bags super do, 16 do old X do., 27 do. black do., 1,500 lbs domestic Noils, 141,000 lbs X and XX Ohio, 10,000 lbs State, 5,000 lbs finished Western, 3,000 lbs washed do., and 200,000 lbs Pennsylvania Combing, on private terms. Fall California Wools are worth in this market to day 26@28c for choice Northern, 20@23c for Middle, and 14@17c for Southern.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week Nov. 1.	Week Nov. 8.	Week Nov. 15	Week Nov. 22.
Flour, quarter sacks	111,793	94 056	58,923	33,755
Wheat, centals	514,389	273 10[illegible]	354,142	246,548
Barley, centals	41,378	48,476	19 932	26,287
Beans, sacks	6,248	12,581	6,932	8,088
Corn, centals	1.398	8 800	5,053	5,858
Oats, centals	7 380	22,321	9,918	6,888
Potatoes, sacks	21,960	40,600	26,563	30,143
Onions, sacks	1,427	1,684	1,451	984
Wool, bales	6 291	4,331	2,946	2,208
Hops, bales	1,358	1,680	747	357
Hay, bales	996	706	1,240	1,275

Bags—Wheat Bags are quotable still lower than the figures given last week. Jobbing rates are 9½@10c, while wholesale rates are quoted as low as 8½@9 by some parties. Dealers look to the results of the recent disastrous cyclone in India to affect the production of Bagging materials, but this is as yet but little more than conjecture.

Barley—Feed Barley is quotable a little higher, viz.: $1.00@$1.05 per ctl; Brewing is unchanged. We note sales as follows: 2,800 sks Chevalier, in two lots, for Liverpool, $1.40; 1,500 do Coast Feed, $1.10, silver; 650 do do, $1.07½, silver; 2,500 do Choice Feed, $1.07½, gold; 3,500 sks Feed, $1.10, silver; 400 do light Bay Brewing, $1.12½, half silver; 400 ctls Chevalier, $1.35; 400 sks Coast Feed, $1.05; 1,000 do do, $1.07½, both silver; 2,500 ctls, do, $1.07½, gold; 600 sks do, $1.10; 4.000 do Bay do, $1.10; 1,500 ctls do, $1.10 per ctl, all silver; 1,000 sks Bright Coast Feed, $1, half silver; 170 do Choice Brewing, $1.15 per ctl, gold; 2,720 sks Choice Bay Brewing, local use, $1.17½, gold; 1,000 do Choice Feed, $1 per ctl; 650 sks Choice Coast Feed, $1.05, silver; 200 do Bay do, $1.02½, gold; 600 sks of Choice Feed, $1.12½; 200 do good do, $1.07½, silver.

Beans—Some kinds have slightly improved in price, as may be seen in our tables. Sales of 250 sks small White at $2.

Buckwheat—Buckwheat is plenty at $1.50 per ctl. Sales of 457 sks, in lots, at $1.50, silver.

Corn—Corn has sold lower than last week's prices. We note sales during the week as follows: 650 sks large Yellow, $1.10; 350 do Southern, $1.10, silver; 75 do small round, $1.12½, half silver; 150 sks large Yellow, $1.07½; 100 sks large Yellow, $1.05; 600 do Large Yellow and White, in lots, $1.10; 250 do small round, $1.10 per ctl, all silver; 350 do small round, $1.05 per ctl, gold; 50 sks White, $1.10 per ctl; 345 sks small round, $1.05½ per ctl, gold.

Dairy Produce—The Butter market is well supplied and the general range is preserved. Fancy brands are now quotable at 47½c as an extreme. Cheese is unchanged.

Eggs—Eggs are unchanged, ruling at 45@50c, but a weaker feeling is reported among dealers.

Feed—Bran is now quoted in some quarters at $17. Other ground Feeds are unchanged. Hay has been received in considerable quantity in answer to the recent advance and the market is consequently less firm. We note sales: 27 tons cow, $9 per ton; 42 do stock, $10.50; 46 do fair Wheat, $16; 40 do stained do, $12; 27 tons poor stock, $9; 42 do fair do, $10.50; 60 do Wheat and Oat, in two lots, one at $12 and the other at $14; 26 do choice Wheat, $16 per ton; 41 tons choice Wheat, $15; 45 do fair cow, $10; 44 tons good Wheat, $15; 45 do cow, $10.50; 56 tons choice Wheat, $16.25.

Fruit—Limes have been still further knocked down by the excessive supply. Prices are quoted as low as $5 per thousand for the poorer lots. Bananas are dearer. Strawberries have advanced and grapes are still upward. The prices for dried Fruits have undergone several changes, as may be seen by our tables.

Hops—Hops are lifeless at present and lots are still held above the market. Emmet Wells reports the New York trade for the week ending Nov. 10th, as follows:

We have to report another quiet week in Hops. Our revised quotations show a decline in the price of all description of new Hops excepting Eastern; which, owing to their scarcity, command more money. The receipts and exports show a large falling off from last week. Summing it up in a few words, business is dull, the market unsettled, and like most other branches of trade, buyers are holding off, waiting the result of the election. Thirty-five cents is now the top price paid by shippers for choice State Hops. Californians bring 36, with very few on offer. The markets in the interior are all reported dull, and prices off.

Oats—Oats have sold well and held their price. We note sales of 157 sks feed at $1.80 ₱ ctl., silver; 200 do good do at $1.77½; 650 do do at $1.65 ₱ ctl., gold; 240 sks good feed, $1.56, half silver; and a small lot of heavy milling, $1 92½; 270 sks at $1.50@1.60; 200 sks good feed, $1.77½; 100 do choice do, $1.80 ₱ ctl.

Onions—Union City onions have sold to-day as high as 80c ₱ ctl., but this is an extreme and uncertain of continuance. Other kinds are unchanged, most sales being at 60@65c ₱ ctl.

Potatoes—Potatoes are unchanged from last week We note sales of 400 sks Petaluma, 82½@87½c; 600 sks Tomales and Petaluma, 60@85c; 200 sks fair Bodega, 60c.

Poultry and Game—Prices are unchanged from last week except the range of dressed Turkeys, which is improved. Venison rules from 5@8c.

Provisions—Fresh Beef is in excessive supply. Dealers say they never knew fine Beef selling so low as at present. Mutton is in moderate supply and unchanged. Pork is coming in freely, and dressed Pork is a fraction lower. The market for Cured Meats is fairly active at lower rates, as may be seen in our tables.

Rye—Rye is quotable at $1.50@$1.60. Sales of 100 sks mixed at $1.25.

Vegetables—Our price list of Green Vegetables is without change. Tomatoes are now of inferior quality and large quantities are left to spoil on dealers hands.

Wheat—An advance in Wheat is noted. It is now quotable at $1.85@1.92½ for Shipping and $1.90@2.00 for best Milling. During the week there has been a large sale by Dr. Glenn, of Colusa county, which is described in our "Agricultural Notes" columns. We note sales of Wheat in this market during the week as follows: 500 sks poor Superfine, $1.65; 75 tons fair shipping, $1.80; 1,000 ctls good do, $1.85; 800 ctls choice do, $1.90; 50,000 do do at reserved prices, but above $1 92½; 20.000 ctls choice Shipping at $1.90; 4,000 do do, $1.90; 1,600 do good Shipping, $1.80; 2,000 sks Superfine at $1.65; 2,000 do good Shipping, $1.75, 900 do choice do, $1.80; 700 do, choice Milling, $1.80; 1,500 sks fair Shipping at $1.80; 1,050 sks Choice at $1.90; 500 do $1.85.

Wool—The Wool trade is very quiet and prices are unchanged. We note sales of 30 000 lbs Fall at 13@18c.

General Merchandise.

WHOLESALE.]

Wednesday M., Nov. 22, 1876.

BAGS.

Eng. Stand Wht..	9½@10
Neville & Co's..	
Hand Sewed.22x36	9½@10
24x36	10½@11½
23x30	11 @12
Machine do 22x36.	9½@10½
Stonr Sacks ½s ..	9 @11
" " ⅛s	8 @ 7
" " ⅛s	4½@ 5
Hessian 60-in	11½@12
do 45-in	9½@10
do 40-in	8½@ 9
Wool Sacks, 3½ lbs.	45 @50
do 4 "	50 @52½
Stand. Gunnies	11½@12
Bean Bags	7 @ 8

CANNED GOODS.

Assd'd Pie Fruits	
in 2½ lb cans. 2 75	@ 3 00
do Table do...3 75	@ 4 25
Jams & Jellies 4 25	@ —
Pickles ½ gl..	— @ 3 50
Sardines, qr box 1 65	@ 1 90
do hf boxes.3 00	@— —

COAL—Jobbing.

Australian, ₱ ton	8 00 @ 8 25
Coos Bay	— @ 9 00
Bellingham Bay	— @ 9 00
Seattle	— @ 9 00
Cumberl'd	14 00@16 00
Mt. Diablo	5 75 @7 75
Lehigh	— @22 00
Liverpool	8 50 @10 00
West Hartley	— @14 00
Scotch	— @10 00
Scranton	13 00 @16 00
Vancouver's	10 50 @12 00
Charcoal, ₱ sk	75 @—
Coke, ₱ bbl	— @ 60

COFFEE.

Sandwich Island	— @ 21½
Costa Rica per lb	21 @—
Guatemala	20½@ 21½
Java	— @ 23
Manilla	20 @ 24
Ground in oe	25 @—
Chicory	27 @—

FISH.

Sac. Dry Cod, new	5 @ 5½
cases	6 @ 7
do boneless	8½@ 10
Eastern Cod	8 @ 8½
Salmon in bbls	6 50 @7 25
do ½ bbls	3 75 @4 00
do 2lb cans	2 65 @—
do 1lb cans	1 80 @—
do Col. R. ½h	4 25 @4 50
Pick. Cod, bbls	22 00 @—
do ½ bbls	11 00 @—
Mack'l, No.1, ½ bbls	11 00 @—
" Extra	— @12 00
" in kits	1 12½@2 25
" Ex mess	3 50 @4 00
" Ex mess. ½ bbs	— @12 00
Pig'd Herr'g, bx	3 00 @ 3 50
Bos. Sm'k'd Her'g	40 @ 50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl	2 00@ 2 25
Cement, Rosendale, do	2 75@ 3 50
do Portland do	4 75@ 5 50
Plaster, Golden Gate Mills	3 00@ 3 25
Land Plaster, ₱ ton	10 00@12 50

MISCELLANEOUS.

Pulu	— @ 7½

NAILS.

Assorted size, keg	3 25 @4 00

OILS.

Pacific Glue Co	
Neat F't No. 1	1 00 @ 90
Pure	— @—
Castor Oil, No. 1	1 25 @—
Baker's A A	— @1 10
Olive Plagniol	4 85 @5 00
do Possel	4 45 @4 50
Palm lb	9 @—
Linseed, raw	— @ 65
do boiled	— @ 70
Cocoanut	— @ 60
Ohlna nut in cs..	— @ 70
Sperm	2 00 @—
Coast Whales	60 @ 65
Polar, refined..	— @ 60
Lard	1 15@1 17½
Oleophine	— @ 37
Davoe's Bril't	38 @ 39
Noopsriel	42½@
Eureka	32½ @ 38
Barrel kerosene	32½ @—
Downer Kerose'e	45 @—
Elaine	— @ 42

PAINTS.

Pure White Lead	9¾ @10¼
Whiting	— @ 1¾
Putty	4 @ 5
Chalk	— @ 1½
Paris White	— @ 2½
Ochre	— @ 3½
Venetian Red	— @ 3½
Averill Chemical Paint, per gal.	
White & tints	2 00 @2 40
Green, Blue & Ch Yellow	3 00 @3 50
Light Red	3 00 @3 50
Metallic Roof	1 30 @1 60

RICE.

China No. 1	5¾@ 6
Hawaiian, ₱ lb	7 @—
Carolina, ₱ lb	10 @—

SALT.

Cal. Bay, per ton	10 00@14 00
do Common	5 00@ 7 00
Carmen Island	12 00@15 00
Liverpool fine	13 50@16 50

SOAP.

Castile ₱ lb	10 @ 10½
Common brands	4½@ 6
Fancy do	7 @ 8

CANDLES.

Grant's	16 @ 16½
Mitchell's	18 @ 20

SPICES.

Cloves ₱ lb	45 @ 47½
Jassia	23½@ 26¾
Citron	28 @ 30
Nutmeg	95 @ 97½
Whole Pepper	14½@ 17½
Pimento	16 @ 17½
Gr'nd Allsp'ce	—@1 12
do Cassia do	—@1 50
do Cloves do	—@1 50
do Mustard do	—@1 50
do Ginger do	—@1 00
do Pepper do	—@1 00
do Mace do	—@2 00
Bowen's Pure Ground ₱ lb	— @ 50

SUGAR, ETC.

Cal. Cube per lb	— @ 13½
Circle A crushed	— @ 13½
Powdered	— @ 13¾
Fine crushed	— @ 13½
Granulated	— @ 13
Golden C	— @ 11½
Hawaiian	10 @ 11
Cal. Syrup in kgs	— @ 72½
Hawaiian Molasses	25 @ 27½

TEA.

Oolong, Canton, lb	19 @ 25
do Amoy	28 @ 50
do Formosa	40 @ 80
Imperial, Canton	25 @ 40
do Pingsuey	45 @ 80
do Moyune	60 @1 00
Gunpo'der, Cant	75 @1 00
do Pingsuey	50 @ 90
do Moyune	65 @1 25
Young Hy., Canton	28 @ 40
do Pingsuey	40 @ 70
do Moyune	65 @ 85
Japan, ½ chests, bulk	30 @ 75
Japan, lacquered bx, 4½ and 5 lbs	45 @ 67
Japan do, 3 lb bxs	45 @ 90
do pl'n bx, 4½ lb	35 @ 65
do ½ & 1 lb paper	30 @ 55

TURPENTINE.

Eastern	50 @ 55

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by Sutro & Co.]

San Francisco, Nov. 22, 3 P. M.

Legal Tenders in S. F., 11 A. M., 91¼ to 91¾. Silver 64@65.

Gold in N. Y., 109½.

Gold Bars, 880 to 890. Silver Bars, 12@20 per cent. discount.

Exchange on N.Y., 50@55-100 per cent. premium for gold; on London bankers, 48; Commercial, 49¼; Paris, five francs per dollar; Mexican dollars, 6 per cent. discount.

London — Consols, 96½; Bonds, 102½

Quicksilver in S. F., by the flask, per lb, 56@57½c.

Domestic Produce.

[WHOLESALE.]

Wednesday M., Nov. 22, 1876.

BEANS.

Bayo, ₱ ctl	2 50@3 00
Butter	1 50@2 00
Pea	2 00@ —
Red	2 75@3 00
Pink	2 75@3 00
Sm'l whits	2 00@ —
Lima	2 00@2 25

BROOM CORN.

Common, ₱ lb	2 @ 2½
Choice, do	3 @ 4

COTTON.

Cotton, ₱ lb	15 @ 18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	30 @ 45
Point Reyes	47½@ —
Pickls Roll	30 @ 32½
Firkin	25 @ 32½
W'st'n Reserve	16 @ 25
New York	— @ —

CHEESE.

Chesse, Cal., lb	10 @ 15
do Old	— @—
Eastern	12½@ 15

EGGS.

Cal. fresh ₱ doz	45 @ 47½
Ducks'	40 @ —
Oregon	40 @ 4.5
Eastern	21 @ 30

FEED.

Bran, per ton	16 00 @— —
Corn Meal	27 50 @— —
Hay	8 00 @16 00
Middlings	22 50 @— —
Oil cake meal	— @33 50
Straw, ₱ bals	60 @ 72½

FLOUR.

Extra ₱ bbl	5 75 @6 12½
Superfine	4 50 @5 00
Graham, ₱ bbl	4 50 @4 75

FRESH MEAT.

Beef 1st quality lb	4½@ 6
Second do	3½@ 4½
Third do	2½@ 3½
Mutton	4½@ 5
Pork, undressed	6 @ 6½
do, dressed	8¼@ 8¾
Veal	5½@ 6
Milk Calves	7 @ 8½

GRAIN, ETC.

Barley, feed ctl	1 00 @ 1 05
do brewing	1 05 @ 1 17½
Chevalier	1 25 @ 1 40
Corn, White	1 05 @ 1 10
do Yellow	1 05 @ 1 10
Oats	1 40 @ 1 65
Milling	1 70 @ 1 90
Rye	1 55 @—
Wheat shipping	1 85 @1 92½
do milling	1 95 @2 00

HIDES.

Hides, dry	15½@ 16
do wet salted	7 @ 7½

HONEY, ETC.

Beeswax, per lb	25 @ 27½
Honey in comb	10 @ 12½
do Strained	8 @ 8

HOPS.

New crop	25 @ 28

NUTS—Jobbing.

Almonds, ₱ lb	8 @—
do, soft sh'l	14 @ 16
Brazil do	14 @ 16
Cal. Walnuts	11 @ 12
Chile Walnuts	11 @ 12½
Pecannts	17 @ 18
Peanuts per lb	8 @ 9
Filberts	15 @ 16

ONIONS.

Union City ctl	61 @ 80
Stockton	55 @ 65

POTATOES.

Petaluma, ₱ ctl	60 @ 75
Salt Lake	— @—
Humboldt	— @—
Half Moon Bay	60 @ 85
Coffey Cove	— @1 00
Early Rose new	60 @ 75
Sweet	50 @ 62½

POULTRY & GAME.

Hens, per dz	7 00 @8 50
Roosters	5 00 @6 50
Broilers	4 00 @5 00
Ducks, tame, dz	7 00 @9 00
Geese, per pair	1 75 @2 00
Wild Gray dz	2 00 @2 50
Whits	— @1 50
Turkeys, Live, lb	14 @ 18
do Dressed	14 @ 18
Quail, per doz	1 25 @1 50
Snipe, Eng., doz	— @1 75
Doves, per dozen	50 @ 57
Rabbits	1 00 @1 25
Hare, per doz	2 00 @2 50
Venison lb	5 @ 8

PROVISIONS.

Cal. Bacon, L'f, lb	15½@ 16½
do Medium	14½@ 15
do Heavy	— @ 15
Lard	13½@ 15½
Cal. Smoked Beef	10 @ 11
Eastern do	— @—
East'n Should's	— @ 12
Hams, Cal	14½@ 15
do Armour	— @—
do Worster's	— @—
do Dupee's	19 @ 19½
do Davis Bros'	— @ 19

SEEDS.

Alfalfa, Chile lb	9 @ 14
do California	15 @ 17
Canary	10 @ 12½
Clover Red	— @ 22
do White	50 @ 55
Cotton	6 @ 10
Flaxseed	— @ 3½
Hemp	12½@—
Italian Rye Grass	25 @ 30
Perennial do	20 @ 30
Millet	10 @ 12
Mustard, white	8 @ 10
do, Brown	3½@ 4
Rape	4 @ 5
Ky. Blue Grass	30 @—
do 2d quality	29 @—
Sweet V Grass	— @ 75
Orchard do	30 @ 35
Red Top do	— @ 25
Hungarian do	8 @ 12
Lawn do	50 @—
Mesquit do	20 @ 25
Timothy	11 @ 10½

TALLOW.

Crude, ₱ lb	6¼@ 6½
Rebned	8¾@ 9

WOOL, ETC.

FALL—	
Free	12 @ 14
Choice	14 @ 16
Northern	17 @ 21
Burry	10 @ 16
Oregon Eastern	21 @—
do Valley	25 @—

Fruits and Vegetables.

[WHOLESALE.]

Wednesday M., Nov. 22, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M	25 00@30 00
Tahiti, do	30 00@35 00
Cal. do	— —@— —
Limes, Mexican, ₱ M	5 00@10 00
Malaga Lemons, ₱ bx	— —@— —
Cal. ₱ 100	2 00@ 2 50
do Sicily ₱ bx	1 10@1 2 00
Bananas, ₱ bnch	1 50@ 4 00
Cocoanuts, ₱ 100	5 00@ 5 00
Pineapples, ₱ dz	— @—
Apples, ₱ box	50 @1 50
Apricots, lb	— @—
Blackberries case	— @—
Cherries ₱ lb	— @—
Plums lb	2 @ 3
Prunes lb	2 @ 4
Figs	4 @ 5
Gooseberries	— @—
Huckleberries	— @—
Strawber's ₱ qs	— @12 00
Pomgranates	— @—
Raspberries	— @—
Currants, ₱ qs	— @—
Cranberries bbl	14 00 @15 00
Peaches, ₱ lb	5 @ 9
Pears, ₱ bx	50 @1 50
Crab apples, ₱ lb	2 @ 3
Grape ₱ box	50@ 60
Rose of Peru	75@1 25
Muscat	75@1 25
Black Hamburg	75@1 25
Tokay	75@1 00
Quinces, box	75@1 00

DRIED FRUIT.

Apples, ₱ lb	4½@ 6
Pears, ₱ lb	8½@10
Peaches, ₱ lb	7 @ 9
Apricots, ₱ lb	10 @12½
Plums, ₱ lb	3 @ 4
Pitted do ₱ lb	— @13
Raisins, imported	3 25 @3 75
Cal. Raisins box	1 50 @2 75
Black Figs, ₱ lb	4 @ 5
White, do	12½@15
Prunes	12½@17
Citron	28 @ 30
Zante Currants	9 @ 10

VEGETABLES.

Asparagus ₱ lb	—@—
Beets ₱ ctl	60 @—
Cabbage, ₱ 100 lbs	50@ 60
Carrots, ₱ 100 lbs	50@ 62½
Cauliflower, doz	50@—
Celery, doz	50 @—
Garlic, ₱ lb	2½@ 3
Green Peas ₱ lb	5 @ 6
Green Corn ₱ doz	15 @25
Sum'rSquash ₱ box	—@1 25
Marro'fat Squash, tn	8 00@ 9 00
Artichokes, ₱ doz	— @—
String Beans, ₱ lb	4 @ 5
Lima Beans	3½@—
Parsnips	— @60
Shell Beans	1½@ 2
Peppers, green bx	60 @75
Cucumbers, ₱ box	—@1 00
Tomatoes, box	25@50
Egg Plant, box	2 00@2 50
Rhubarb box	—@—
Lettuce, doz	10@ —
Turnips, pr ctl	50@ 62½

Leather.

[WHOLESALE.]

Wednesday M., Nov. 22, 1876.

Sole Leather, heavy ₱ lb	25@ 28
do do light ₱ lb	20@ 22
Jodot, 8 Kil., per doz	48 00@ 50 00
Jodot, 11 to 13 Kil., per doz	68 00@ 79 00
Jodot 14 to 19 Kil., per doz	82 00@ 94 00
Jodot, second choice, 11 to 16 Kil. ₱ doz	57 00@ 74 00
Cornellian, 12 to 16 Ko	57 00@ 67 00
Cornellian Females, 12 to 13	63 00@ 67 00
Cornellian Females, 14 to 16 Kil	71 00@ 76 50
Simon Ullmo Females, 12 to 13, Kil	58 00@ 62 00
Simon Ullmo Females, 14 to 15, Kil	66 00@ 70 00
Simon Ullmo Females, 16 to 17, Kil	72 00@ 74 00
Simon, 18 Kil. ₱ doz	61 00@ 63 00
Simon, 20 Kil. ₱ doz	65 00@ 67 00
Simon, 24 Kil. ₱ doz	72 00@ 74 00
Robert Calf, 7 and 9 Kil	35 00@ 40 00
French Kips, ₱ lb	1 00@ 1 15
California Kip, ₱ doz	40 00@ 50 00
French Sheep, all colors, ₱ doz	8 00@ 15 00
Eastern Calf for Backs, ₱ lb	1 00@ 1 25
Sheep Roans for Topping, all colors, ₱ doz	9 00@ 13 00
Sheep Roans for Linings, ₱ doz	5 50@ 10 00
California Rosaett Sheep Linings	1 75@ 4 50
Best Jodot Calf Boot Legs, ₱ pair	5 00@ 5 25
Good French Calf Boot Legs, ₱ pair	4 00@ 4 75
French Calf Boot Legs, ₱ pair	4 00@—
Harness Leather, ₱ lb	24@ 32½
Fair Bridle Leather ₱ doz	48 00@ 72 —
Skirting Leather, ₱ lb	33@ 37½
Welt Leather, ₱ doz	30 00@ 50 00
Buff Leather, ₱ foot	17@ —
Wax Side Leather, ₱ foot	17@ —

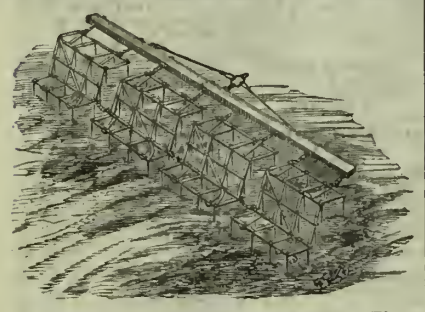
Retail Groceries, etc.

Wednesday, M., Nov. 22, 1876.

Butter, Cal. oh'ice	50 @60
Cheese, lb	18 @30
Eastern	25 @30
Lard, Cal., lb	— @18
Eastern	20 @25
Flour, ex. fam, bl	6 25 @6 50
Corn Meal, lb	2½@ 3
Sugar, wh. crsh'd	12½@13½
do lt. brown, lb	8 @ 9½
Coffee, green, lb	23 @ 35
Tea, fine blk	50, 65, 75 @1 00
Tea finest Jap	55, 75, 90@1 00
Candles, Admant'e	15@ 25
Soap, Cal

Agricultural Articles.

IRON SECTIONAL HARROW.



This Harrow was Awarded the First Premium at the California State Fair in 1875.

The undersigned, having purchased the patent right of this Harrow for California, are now manufacturing them in Roseville, Placer County, and would call the attention of Farmers to the superior merits of this Harrow over all others now in use.

As its name indicates, it is made in sections of about three feet in width, each section having four bars, in which the teeth are inserted, and by connecting the sections with links, the Harrow is formed.

Should a farmer require a Harrow upon his farm to do all kinds of work, he should purchase six sections, which would be suitable for four horses, and would cut 18 feet in width; by disconnecting two sections he will have a two or three-horse Harrow, cutting about 13 feet. One section alone is complete in itself, and suitable for garden work, with one horse. The Harrows are made of the best quality of iron, and with teeth warranted to be steel.

We give a few of the many reasons why we claim superiority for these Harrows over all others in use on this Coast:

First—By the lightness of draft, taking into consideration the amount of work it does.

Second—By working uneven or rolling ground just as well and as evenly as if it was entirely level.

Third—They are made of Iron and Steel, and therefore are not affected at all by sun or rain, or by heat and cold; they are always tight, and ready for use; they are also durable. A farmer purchasing one has a Harrow that will last a life time.

Fourth—The teeth being fastened with a nut and screw into the cross bars, should one break, another can be inserted in a moment. We are making three sizes, all being the same in width, but different in depth and weight only.

Prices, from $12.50 *to* $15.00 *per Section.*

All orders sent to

BREWSTER & CO.,
Roseville, Placer Co.,

Will be promptly attended to, and satisfaction guaranteed in all cases.

CAUTION.

It has come to our notice that certain parties are now making this Harrow in this State, and that several of them have been sent here from the East. Now this is to *caution* all persons against making, selling or buying them, so made and offered for sale, as we shall enforce our rights in relation to the matter, and would call the attention of all persons infringing upon our patent, to the *law* in regard to it.

BREWSTER & CO.

Roseville, July 15th, 1876.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power

[PATENTED FEBRUARY 13th, 1872.]

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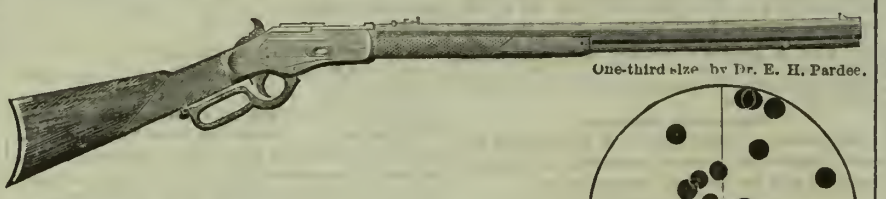
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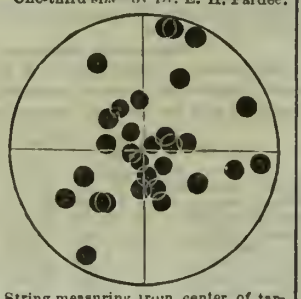
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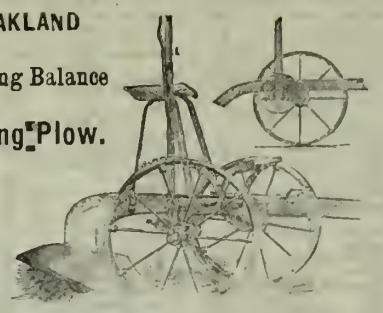
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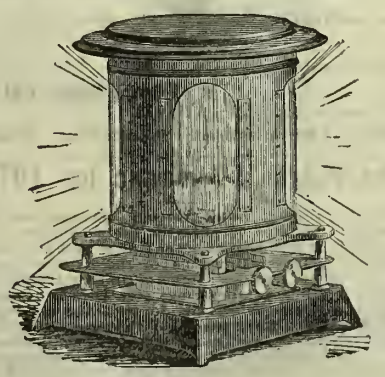
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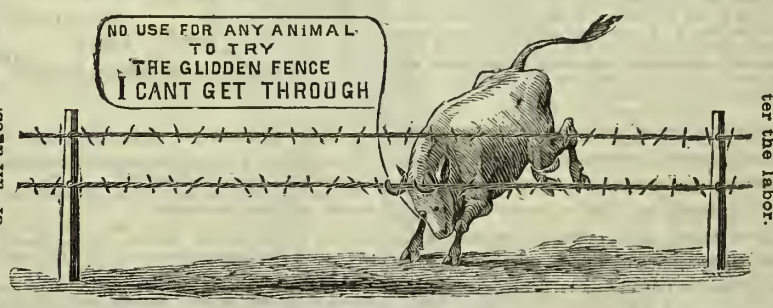
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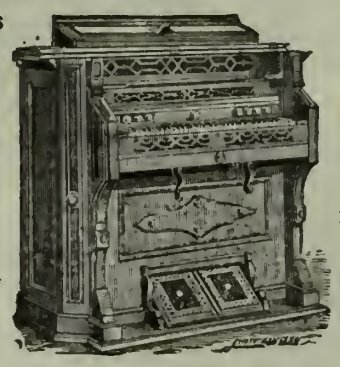
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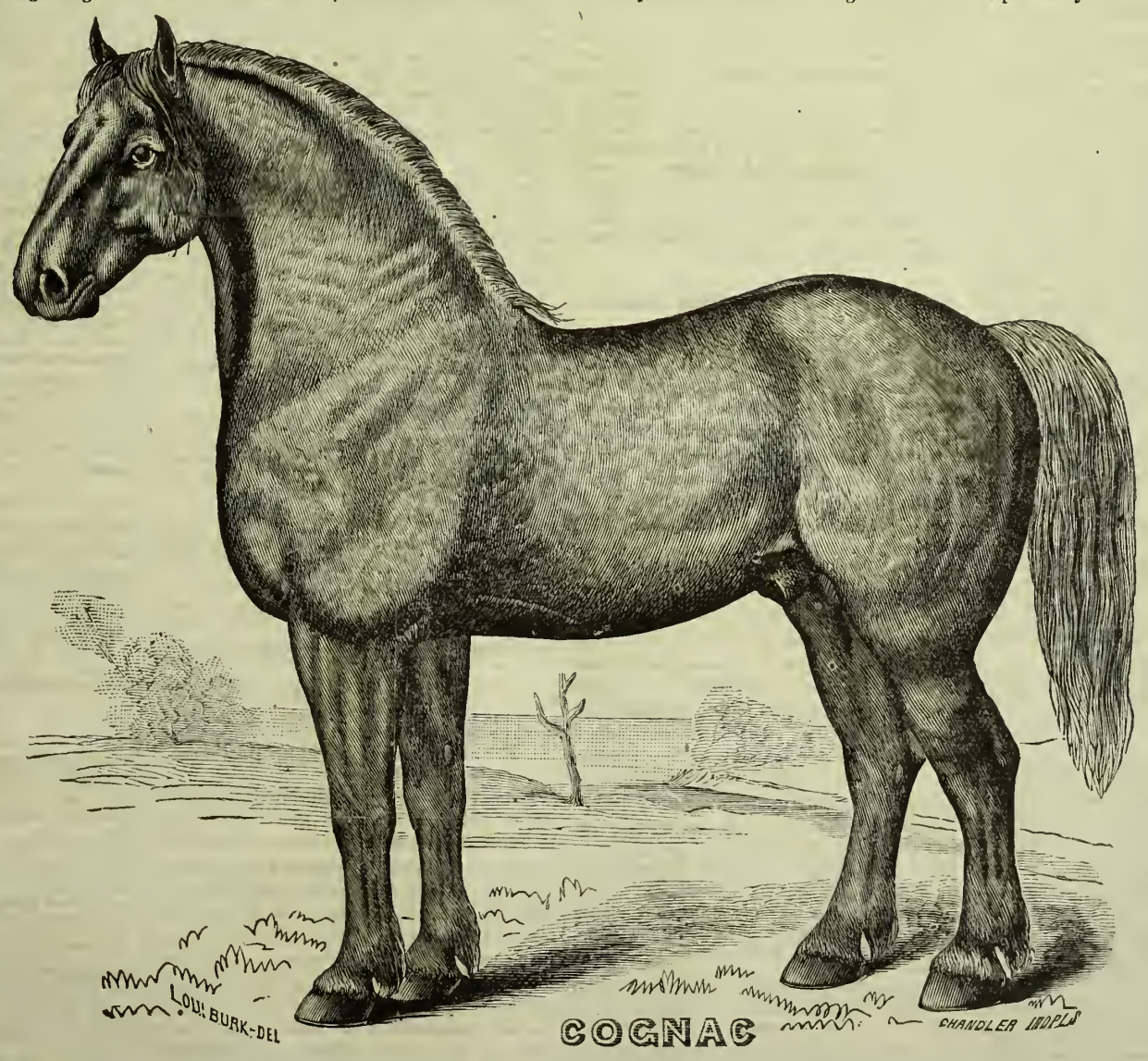
PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, DECEMBER 2, 1876. [Number 23.

The Norman Horse.

California is fast adding to her wide fame as a land of fine horses. In matters of speed the State stands high among turfmen. Although breeding for speed is valuable and the general quality of our horses can be improved by the introduction of more of this element, the speed power of the horse is made such a tool for fraud on the race courses that it is not an unmixed blessing. Developing horses in the working power is intimately connected with our agricultural and other industrial progress, and is worthy of all encouragement.

We give on this page a fine engraving of an imported Norman stallion. This valuable breed of heavy horses has been before our coast farmers for several years and the results from breeding them upon the common stock has greatly improved the work horses in some parts of the State. The Norman horse is of noble origin, and in connection with the Clydesdale and English draft horse has accomplished the improvement of stock to which we have alluded. The breeders of the Normans claim for their valuable animals a share in the success which the French armies won under Napoleon Bonaparte. We find the following in a book upon the Norman horse: "Never in the world were horses called upon to endure such hardships as were the horses in Napoleon's army. No other horses in the world but Norman French horses would have taken Napoleon's artillery and baggage across the Alps at the time that he invaded Russia. It is almost incredible to believe that any of them could have ever got back to French soil again. The fact that there cannot be found anywhere in the world another family of horses all possessing the same general form, with such great power of transmitting to their progeny all their characteristics, is proof enough that they are a pure and distinct breed, the result of hundreds of years of careful breeding. The native horses of every other country in the world except Normandy, so far as we have a knowledge of them, are universally small horses."



The imported Norman stallion of which we print an engraving on this page, is one of a considerable importation which is now on its way to this State. Joseph Wooden, of the firm of J. Wooden & Co., Petaluma, California, went East for the purpose of importing some of these horses, to add to the number of fine horses which may be found on many of the Sonoma county ranches. We receive a letter from Mr. Wooden in which he says that he has made up his shipment and expected to leave Illinois about November 25th and reach San Francisco about December 6th. He will bring a good lot, as we infer from the following extract which we make from his letter:

"We have purchased from E. Dillon & Co., of Normal, Illinois, 10 Norman stallions — five grades, one native full blood and four imported. The imported stallions are all dark dapple grays, three of them five years old and one six years old. They are as fine a lot of stallions as was ever imported to the United States. They were all selected and imported from France by E. Dillon & Co. We have the prize stallion Sultan, that was awarded the prize of 500 francs in Rouen, France, in 1875. The other three stallions, Pilot, Cognac and Eure Et Loir, are all noted stallions, and are considered by good judges as fine stallions as ever crossed the Atlantic ocean. The native full blood Tornado is a beautiful bay, weighing 1,350 pounds. He is a monster. He was awarded the first premiums in 1865 and 1866, at the Illinois State fair and the Indiana State fair. He was sired by imported St. Laurent, his dam was imported Eureka. The three-quarter-blood Ironclad is a dark bay, one year old last spring, and weighs 1,300 pounds. The other four are dark grays, two years old last spring, three-eighths, five-eighths and seven-eighths blood. The above named stock was all purchased of E. Dillon & Co., the most extensive importers and breeders of Norman horses in the United States. We have purchased of other parties two half-blood Norman stallions, making in all 12 stallions that we will ship to California."

Plowing with Dynamite.—The agents of M. Nobel, the well-known inventor of nitro-glycerine, have lately found a novel use for dynamite in grape culture, which suggests further possibilities. The mechanical way, literally to "shake up" the earth, and allow the free percolation of water and the access of air to the roots of the vines. To this end holes were made in the soil about ten feet in depth, and at points where no roots were likely to be injured. Then cartridges of dynamite were introduced and exploded, and the result was that for the entire depth noted the earth was made loose and friable. The ground, in fact, was not only rendered in better condition than could have been effected by plow and harrow; but every phylloxera, so the writer says, on roots of the vines was killed. The quantity of dynamite used is not stated, but it is likely to have been but small, just enough to shake the soil without blowing up the vines.

Raisins.

We have evidence this week that the "raisin district" of the State is a district of no small length or width. The adaptation of many parts of the State to this commendable vineyard industry is a matter for general congratulation. The samples of raisins which we have received are from Los Angeles and Stanislaus counties, and they are products worthy of remark.

Mr. T. P. Hinde, of Anaheim, sends us a small box of his own curing. They are cured, he informs our agent, by a process of his own. It is by artificial heat. We regret Mr. Hinde did not send a description of this process. The raisins are of fine quality and will be found a good merchantable article. The flavor is rich and the color of the raisin fresh and noticeable.

One of the finest boxes of raisins which we have seen this year is received from the Red Mountain vineyard, Stanislaus county, A. Sobell & Co., proprietors. The finish of this product is as marked as the quality. The package is handsome and the fruit is covered with a neatly designed bill, giving the name and locality of the vineyard. Mr. H. A. Schell writes that he has put up several hundred boxes this fall. The raisins are uniform, the clusters thick and large, the bloom is full and the true raisin flavor well developed. Mr. Schell has reason to congratulate himself upon his product.

The Sportsman's Club of California has between 180 and 190 members in good standing, and holds a lease from the Spring Valley water company of the fishing preserves in lakes Pilarcitos, San Andreas and Merced, for which it pays an annual rent of $1,200.

Rivers and Deep Canyons.

The wearing away of the earth by the action of streams is familiar to all; but the vastness of this influence in modifying the surface of the earth is rarely appreciated, except by the professed geologist. In passing across the continent, from the Atlantic to the Pacific, the regularly increased evidence of this action is noticeable at almost every stage of progress. It is not, however, until the traveler has passed the crest of the Rocky mountains, that he beholds the most extraordinary phenomena of this description. Very deep canyons are comparatively rare east of those mountains, while they become the almost invariable rule to the west of them. Two of the most remarkable instances of this character are, perhaps, the Black Rock canyon, on the route from the Great Bend of the Humboldt to Goose lake and Oregon, and the still more famous canyon of the Colorado. This latter is rightly considered the most remarkable depression, or rather excavation, of the kind in the world. It has never been properly understood or appreciated, until the appearance of Powell's report on the subject, published lately by the Government. The land of this region is an elevated plateau, and for many miles the Colorado flows through it, in a narrow channel, 6,000 feet below the plateau!

Throughout the entire western flank of the Sierra Nevada, the principal rivers, in the upper portion of their course, have generally cut their way down from 2,000 to 4,000 feet in depth, with banks upon either side rising at an angle of from 35 deg. to 45 deg. with the plane of the river. It has been supposed by many that these channels were formed before the rocks had become so much indurated as to prevent any very serious obstacle to their being worn away. But such could not have been the case, as we find that before the present river courses had an existence, there was another system of rivers, running at almost right angles with the present water courses. In excavating into the beds of these ancient rivers, as the miners are now doing in thousands of places, we find most unmistakable evidences that even they flowed over the country after the country had become fully as much indurated as it now is. The upper branches of the American river have, in some places, worn their way 3,000 feet below the beds of these ancient streams. In almost every part of our mountains this characteristic is manifest, even to the most casual observer, although it is difficult to imagine the forces and time required to have accomplished such results.

Conquering Dodder.—We read in French correspondence that M. Majou has successfully freed his lucerne from the dodder, by leaving, at mowing time, the parts of the field affected, uncut. He then encloses sheep on these spots till the lucerne is eaten down, without, however, injuring the crowns of the plant; if some of these even be destroyed, the luxuriant growth of what remains will prove an ample compensation.

Subscriptions in Petersburg and Moscow alone, to the loan of 100,000,000 roubles, authorized by an Imperial ukase of November 18th, exceeds that amount.

CORRESPONDENCE.

East and West—No. 7.

[Written for the PRESS by PHILMORE.]

Raisins.

There is considerable interest at the present time manifested in regard to the growing of grapes for raisins. Indeed, extensive vineyards have been planted within two or three years for the cultivation of the raisin grape alone. There have been different opinions in regard to soil, locality, etc., but we believe it is generally conceded that the hillsides are the best adapted for vineyards, and especially the foothills of the Sierra Nevada and Coast range of mountains.

Raisins, in our boyhood's days, were among the wonderful and mysterious fruits that grew far away. We did not know exactly where; we imagined it was beyond the sea, in far off sunny Italy or some other beautiful country that, like the promised land of old, flowed with milk and honey. We scarcely dreamed that in our own fair land such fruits could grow. The land where oranges and figs and pine apples and raisins grew, was to us a kind of fairy land, a land of eternal summer; a kind of dream-land that few were permitted to visit, except as we visit Heaven, while on earth. In short, it was a land of poetry, in every sense. Such were our childish ideas of the far off country that produced such delicious fruits.

In those days we had raisins for prizes in penny lotteries. We treated our guests upon raisins, when they spent with us long winter evenings, (if we could afford it). We had raisins for mince pies and plum puddings, but in the latter instance they were magnified into "plums," and were eagerly sought for in our piece of pudding, and woe to us if another piece contained more than our own. Raisins were considered great delicacies, and, in case of sickness, a few in gruel seemed to make it palatable.

In fact, raisins were, and are now, considered indispensable to a well ordered house. We had different qualities then as now, and prices were much the same. There were very few of the best sold outside of the larger towns and cities. Usually, the second quality was considered good enough for the smaller towns in the country. Now, is it not rather strange to think that we have made such slow progress in the cultivation of grapes for raisins; we may say, cultivating the raisin grape?

When we came to California, 25 years ago, there was an abundance of grapes, and we then thought them excellent. They were called the Mission or native grape, and we supposed they were the only variety suitable or profitable to cultivate, and there appeared to be no place where they could be raised to so good an advantage as Los Angeles, from whence our market was supplied. About this time Gen. Haraszthy became interested in viniculture. He visited and examined the various localities, soils, etc., and the result was he established himself in Sonoma. He had previously visited the vine growing countries of Europe, and he came to the conclusion that the locality he selected was the best. But this was with a view to cultivating grapes for wine only.

After a time the idea suggested itself that other varieties than the Mission or native grapes, as they were called, might be grown to a profit. The result was he visited Europe, we believe, for the purpose of securing some of the best varieties at that time known. Among the rest the justly celebrated Muscatelle, and many others quite as beautiful, and possibly more desirable for the table, but as a whole, we do not believe it has an equal in all respects. There appears to be a great difference in grapes called by the name. In some instances the soil and climate may cause it, but we believe there are several distinct varieties that are confounded, and few can distinguish the difference between them. There appears to be, however, a very great difference when compared together, and he that anticipates going into the business of growing grapes for raisins, will do well to be sure he is right before he goes ahead.

Wine has become very abundant, and consequently very cheap; so much so, that the utmost skill and experience is required to make it profitable, especially to those that have stuck to and depended upon the Mission grape. The consequence was a few commenced drying their grapes and calling them raisins. Any man that could exhibit a few pounds of inferior raisins of his own growing and curing, considered he had done something to be proud of. The newspapers spoke of them, and everybody appeared surprised that such a thing could be done. Others tried it and wondered at their success, but none seemed to understand why the raisins were not as good as the imported ones. So we continued to send away thousands of dollars for Malaga and Smyrna raisins that might just as well have been kept at home. Accidentally a man had a few of the proper variety ripen and dry on the vines. They were exhibited and grape growers took their cue.

We have seen some California raisins which were superior to any imported raisins we ever saw or tasted. They were raised in El Dorado county, on the hillsides, and we feel warranted in the assertion that the day is not far distant when raisins from the same locality will supersede the imported entirely. Then we shall have good cause to feel proud of California raisins, and if we are not mistaken, somebody will feel happy in the thought that they invested a few dollars in the experiment of growing grapes for raisins, since they are surely destined to put money in the purse of thousands that are interested in the undertaking.

The California raisin company has a vineyard situated about 30 miles from Sacramento city on the Central Pacific railroad. It contains upward of 250 acres of vines, most of which have been growing two years. The present season but few grapes were gathered. Another year they hope to send some of their raisins to market, and possibly some to Eastern markets. Some samples from this locality have been exhibited in San Francisco, and their beauty and excellence has been frequently commented on by the press and otherwise.

A Vineyard Scene.

For the benefit of those that have never seen a vineyard, and especially those that have never been out of New England, we would like to give some idea of what vineyards are in this country. Passing a vineyard in the spring—and pretty late in the spring it may be, for the vines put out very late—you would see nothing but a few insignificant black looking stumps standing at regular distances. It would strike you at first that a fire had been over the ground and left these stumps only. A little later they begin to show life and look green. From that time they grow very rapidly. Soon the flowers and young grapes show themselves, the vines soon covering the ground. So that when the adjacent hills are barren and uninviting, these vineyards put on their loveliest hues—drawing the moisture and substance from the earth to feed the young grapes and cover them with foliage. Every year the pruners cuts back most of the last year's growth, and leaves, as we have seen, an unsightly stump.

Our childish impressions of a vineyard were very far from the reality and we presume others may not be much better informed. So that an inkling of what a vineyard really is may not be amiss. Now in California, from May until November we have no rains to speak of, and during that time the vines put forth and the fruit ripens, and in some instances is dried or cured on the vines. This fact alone is of the greatest importance to farmers and horticulturists, and especially to those engaged in grape growing where it is desirable to cure the fruit. In the Eastern States it would be impossible. We hope to live to see the whole United States supplied with raisins from California, and then we will look for another market.

Notes from San Bernardino County.

EDITORS PRESS:—One year ago I gave you a few items for which we could "thank God," in response to the request of your correspondent from Cedar Rapids, and promised more. To-day I wish to redeem my pledge and will say that Riverside has grown wondrously during the past 12 months. It has about doubled its population. Buildings have sprung up in all directions, and many of them compare favorably with those of older States, and are good enough for any State. Brick, wood and adobe are used in their construction, according to tastes and means of the owners. Many are flocking in from the East seeking homes in our more genial clime, and altogether our society is very desirable. Three good schoolhouses are already built and schools in successful operation. Three churches organized look after the morals of our community. Three dry goods stores, two drug and one hardware supply the wants of the valley in this direction. There is only one hotel as yet in the place, but a new one is projected and in a few weeks will be ready for the public. Several of the largest and most convenient houses have been opened as boarding and lodging houses, and accommodations can be secured at low rates for either transient or permanent visitors.

My object more especially is to call attention to the ample facilities we have in this valley for

Irrigation.

Already 28 miles of irrigating canals are completed and abundance of water to irrigate, at lowest possible estimates, 50,000 acres, whereas only 20,000 to 25,000 acres are covered by these ditches. A large portion of these canals are built in solid rock, blasted out of the mountain side, and wherever it was necessary to make "fills" the work has been done in the most substantial manner. The cross-ditches are covered with good strong bridges and culverts built with brick and cement. This all goes to prove that the "company" is determined to spare no labor or money to make the enterprise a success, not only in the end financially, but to the settler, guaranteeing him by these permanent improvements the security of his home and surroundings. I have been nine years and a half in California, have traveled quite extensively through the State, and have come here to make my "home," because, in my judgment, the future of this valley is very bright.

Fruits.

Such growth of semi-tropical trees as we can show has not yet been equaled in Southern California. The orange is almost entirely free from scale; those raised from seed have none whatever, and the few which show it have been imported from Los Angeles, San Gabriel, etc. Our limes are pronounced by San Francisco fruit dealers to be vastly superior to those raised elsewhere in the State or imported from the South Pacific islands. Oranges and lemons are too young to produce fruit, except one tree of the former, which proves the fruit to be superior.

The Muscat of Alexandria grape is quite extensively cultivated and the raisin interests of our valley, though yet in infancy, promise well. Ten pounds of raisins to the vine have been produced by use of the trellis; this is not the ordinary yield but shows what can be done by care and attention. At this rate an acre would produce 6,000 pounds, which, at 10 cents a pound, would realize $600. Let the average be only 25 per cent. of this, and we have an avenue to wealth open to the industrious at comparatively small outlay.

The hue and cry is raised against our valley by some would-be philanthropists, who are anxious to furnish "facts," especially if they have an axe to grind of their own, that Riverside may be very good for raising semi-tropical fruit, but what is a poor man to do for eight years while his trees are growing and coming into bearing?" Our reply is, come and see what poor men can do while trees are growing. The fact that nearly all the original settlers in this valley were poor men and yet have managed to exist and secure thrifty homes, proves that the ground between trees, if cultivated, will support the farmer while the trees are growing. Corn, vegetables of all kinds, berries of every description, barley and alfalfa can be raised in abundance. A gentleman told me last week that last year his alfalfa crop in 100 acres netted him $3,000. This year not quite so much on account of bad management.

Cost of Land and Water.

We are misrepresented by saying that all good land is held at $50 per acre. It is not so. There is an avenue nearly 15 miles long laid out the entire length of the valley, 132 feet wide, eight miles of which is as straight as a line. On this main avenue the land is $50 per acre, but back from this thoroughfare 40 rods and land is only $40, equal in every respect to that on the avenue except choice of location. Again, we are accused of selling water at an average of $5 per acre annually, whereas the "facts" are that it only costs from three dollars to three dollars and one-half per acre, except where parties want a continuous stream of five inches; it then amounts to $50 per annum for a 10 acre lot. This water, on account of the great length of canal, becomes warmed up and stimulates the growth of trees and other fruits, whereas water from flowing wells chills the tender plants and is not so valuable for irrigation.

I wish, Mr. Editor, you would take a vacation and visit Riverside, and thus see for yourself what our prospects are.

But my letter is already too long. The fact is I am full of my subject and perhaps you may hear from me at some future time, should you so desire it. D. W. MCLEOD.

Riverside, Nov. 17th, 1876.

[We are glad to receive fair and true statements from all locations where our readers have cast the lot of their lives. We would like to introduce the State to itself and to the world, and thus bid each part come forward.—ENS. PRESS.]

THE DAIRY.

The Process of Making Butter.

In his work on "American Dairying," Prof. Arnold describes as follows the chemical and mechanical processes of churning, and the combination of globules resulting in butter:

It has already been stated that butter is made up of the fat globules in milk which adhere after having been divested of their membraneous envelopes by churning, and that these little atoms of fat are themselves made up of several varieties of fatty elements, such as sterine, palmatine and oleine. These fatty elements have in each globule not only a definate composition, but also a definate organization, as much so as that assumed by the several parts composing an egg.

When butter can be churned and worked so as to leave the disrobed granulets of fat whole, or nearly so, if a piece of it at 60 deg. or below is broken in two, it will show a clear and distinct fracture like broken cast iron, and when the fracture is viewed with a magnifier it will show a granular structure. This unbroken and undisturbed condition of the granules of fat is what constitutes the grain of butter.

In this condition butter has its best flavor and best keeping quality. If the churning, working or handling has been such as to mash and break the granules, the fatty elements composing them become mixed and the oily parts spread and give to the whole a greasy appearance, and the fracture, instead of being distinct, like that of cast iron, will be more like a fracture of lard, green putty or salve. The more the atoms of fat are mashed and broken, the more the flavor is depressed and the sooner the butter spoils, just as an egg might be expected to spoil the sooner for having its contents stirred and mixed up. The difference in the keeping of butter whether the grain is broken or not is very great. When the grain is all right butter may be kept under great disadvantage and almost anywhere. If the grain is spoiled it will hardly keep long under any circumstances, and the flavor is about as much affected as the keeping.

In all the processes, therefore, of making and handling butter, the preservation of the grain should be kept constantly in view, and those methods adopted which will do it the least violence and have the least tendency to make it appear greasy. The right temperature, too, must be observed, for if too cold when manipulated, the granules will grind against each other and injure by the friction; if too warm, the grain is spoiled by the too easy mixing of the softened fats.

The object of churning is to divest the milk globules of their delicate membraneous covering without breaking or disturbing the granulus of fat within them. This is best done by a force in which motion and pressure are combined. Such a power is much better than motion and friction. Repeated impulses of motion and pressure act upon the entire mass at once and alike. Motion and friction act only upon such particles as the instrument used comes in contact with. Friction wears off the pellicles and does its work unevenly. The large globules meet with the most friction and hence their pellicles are worn off first. These gather into lumps before the smaller ones become churned. If the churning continues till the smaller ones "come," the larger ones become overchurned and greasy by the excessive friction. Pressure operates upon large and small nearly alike, and the globules of different sizes come nearer together and more perfectly, producing more and better butter.

The devices for churning are very numerous. The one most extensively in use in this country is the old dash churn. It is also the hardest to operate; but when properly constructed it does its work in the best manner. To do the best work they should be barrel-shaped, having a moderate swell in the middle, and the dasher should be large enough to occupy three-quarters of the area of a horizontal section of the middle of the churn. The dasher should either be a complete circle, the floats or wings being broad and whole instead of being narrow, notched and full of holes. The large dasher will require about once and a half as much power to operate it as the smaller and narrower one with its notches and holes, but it will give more and better butter, and do its work in one-half the time, or in the same time at a few degrees lower temperature. The smaller the dasher the easier it works, and the longer time it takes to bring the butter, and the poorer the butter. The more notches and holes and corners it contains, the more friction will it occasion, the more will the grain of the butter be injured and the greater the tendency to become greasy. The most objectionable form of dasher I have met with, on account of making the butter greasy, is the system of checks.

SANTA CRUZ DAIRIES.—For years the dairy interest of Santa Cruz has been a large one. The foothills along the coast west of town seem specially adapted to grazing purposes. It is about the only kind of industry to be seen between here and Davenport's landing, and it extends a good ways above there. There are 17 dairies in this county, aggregating 1,692 cows, as follows:

Chas. Bradley, Moore's ranch, coast road	100
H. M. Terry and Wm. Finch, Baldwin's ranch, coast road	425
R. E. Merrill, coast road	17
Jo. Silva, Almstead's ranch, coast road	140
Horace Gushee, coast road	143
Wm. Chalmers, Hatch & Co.'s ranch, coast road	225
W. W. Clark, Hall's ranch, coast road	40
Geo. P. Laird, coast road	140
D. M. Locke, Scott's valley	57
Julian Moretta	70
Jas. Archibald's ranch, coast road	102
Ambrose Ginone, coast road	98
Joseph Errington's ranch, coast road	80
James M. Silvey	19
Geo. E. Scott, Scott's valley	40
N. Stansberry, Welch ranch, Felton	88
Total	1,692

Of these the milk of 195 cows is used about half of the year to make cheese, during the winter and spring, when grass is plentiful. When the grass gets short, their milk is again used to make butter.—*Courier.*

THE PARIS EXHIBITION OF 1878.—The plan of the International exhibition of 1878 has been issued by the minister of commerce. The main building on the Champ de Mars will be 689 meters long by 350 wide. The French section will occupy the left half of it, and the foreign sections the right. Visitors walking through it transversely will be able to see the "exhibits" of all countries in any particular class. The fine arts will occupy the central avenue, and will have five times the space allotted to them in 1867. The breadth of the avenues will be one of the most striking features of the building, the area of which will be 240,000 meters, as against 153,000 last time. There will be five departments—namely, machinery, raw material, furniture, clothing and the fine arts. There will be a large hall decorated with statutes at each extremity, one fronting the Trocadero and the other the military school. The plan of the buildings on the right side of the river and of the connecting foot bridge is not yet settled.

The Swine Yard.

The Correct Way to Make a Hog Trough.

It is an egregious error to assert, as many farmers have done, that a hog is predisposed to plant his fore feet in the trongh while eating. Nothing is more absnrd. A hog is no more inclined to put his forward feet in the trough than a horse is wont to put his feet into his manger. The great fault is in the construction of the hog's trough. Almost always the trough is so deep and the front side so high that the feed cannot be reached by either large hog or pig nntil the fore feet are planted in the middle of the trongh. Small pigs are required to monnt into the trongh with every foot before they can reach the feed. These are the reasons why a hog puts his fore feet in the trough. Let the front side of the trough be made so low that the animal can walk up to it and reach the feed without resting his throat on the edge of the trough, and he will stand up to it as a horse stands to his manger.

There is no necessity for making a hog's trongh so broad and deep that it will contain four times as much feed as will ever be put into the trough at any one time. If the front is three inches deep and the bottom ten inches broad in the clear, the trough will hold all the swill and other feed that can be eaten at one feeding by as many swine as can stand in front of the trough. The oorreot disposition of the trough is to place it between the feeding apartment and the space appropriated to the animals. Then let the partition be made in the form of a flap or gate and be hung by hinges above the trough, with the lower end of the flap hanging in the trough, so that it can play from one side of the trough to the other. By this arrangement the flap can be fastened by a bolt to the front side until the feed is put in the trough. Then, as soon as the feed is properly distributed, unbolt the lower edge of the flap, draw it to the other side and fasten it. By this plan the swine will all stand up to the trough like a row of horses at their mangers. —*N. Y, Herald.*

An Austrian Piggery.—In it were 16,000 valnable animals, in pens containing from 100 to 200 each. They are compelled to be cleanly in their habits, and divide themselves naturally into two groups, those who voluntarily seek the means of purification, and those who are cleansed, nilly-willy, with a hose, and submit like philosophers to tho inevitable. They are brought from all parts of the country when 15 months old, and are fed on the refuse of a large brewery near at hand, supplemented by maize and barley roasted and boiled. The supply is nnlimited, and salt and other condiments are nsed to stimulate their appetites, the object being to fatten them as quickly as possible. So successfully is this accomplished that some animals weighed as much as 650 ponnds. There seem to be several breeds, some resembling our Berkshires, but stronger on their legs, as they walked about with comparative ease in spite of their bulk. The most remarkable were, however the woolly pigs, with curly bristles, resembling fleece, which is said to be worked into some of the coarse textile fabrics of the country. They are well deserving of the attention of English breeders, for by careful oultivation pig's wool might become nseful material for yarn. The establishment visited belongs to a joint-stock company and pays a handsome dividend. There are also several private pig farms in the vicinity, ontaining a total of 40,000 or 50,000 pigs.

Bees.

The Honey Bee.

[By Josh Billings.]

The honey bee iz an inflamible bugger, sudden in hiz impresshuns and hasty in hiz conclnsions, or eud.

His natral disposishnn iz a warm cross between red pepper in the pod and fusil oil, and hiz moral bias iz, "git out ov mi way."

They hav a long boddy, divided in the middle bi a waist spot, but their phisikal importance lays at the terminns or their snbburb, in the shape ov a javelin.

This javelin iz alwas loaded, and stands reddy to unload at a minnits warning, and enters a man az still as thought, az spry as litening, and as fnll oph melankolly az the toothache.

Bees never argy a case; they settle awl ov their differenoes ov opinyun bi letting their javelin fly, and are az certain tew hit az a mnle iz.

This testy kritter lives in congregations nnmbering about 20,000 souls, but whether they are male and female, or oonservative, or matched in bonds of wedlock, or whether they klub together and keep one wife tew save expense, i don't kno, nor don't kare. I never examined their habits mutch, i never considered it helthy, for what would it profit a man tew kill 99 bees and hav the 1 hundredth one hit him with hiz javelin?

The drones seem always bizzy, bnt what they are abont the lord only knows, they don't lay up enny honey, they seem tew to be bizzy only gist for the sake of eating all the time, they are alwas in as much ov a hnrry az tho they was going for a docktor. I suppose this uneazy world would grind around on its axletree onst in 24 hours, even if thare want enny drones, bnt drones must be good for snm thing, but i kant think how it iz. There haint been a bug made in vain, nor one that want a good job; there iz ever lots ov human drones loafing aronnd blacksmith shops and cider mills, all over the conntry, that don't seem tew to be necessary for enny thing bnt to beg plng tobacco and swear, and steal watermelons, but you let the cholera brake out once, and then yon will see the wisdum ov having jist sich men laying around loose, they help connt.

Bees are not long lived—i kant state jist how long their lives are, but i kno, from instinkt and observashnn, that enny kritter, be he bug or be he devil, who is mad all the time and stings every good ohance he kan git, gennerally dies early.

The only way tew git the exact fiteing weight ov the bee, is taw tutch him, let him hit yon once with his javelin, and you will be willing tew testify in court that sumboddy run a one-tined pitchfork into yer; and as for grit, i will state for the informashun ov those who havn't had a chance to lay in their vermin wisdum as freely az i hav, that one single bee who feels well will brake up a large camp meeting!

What the bees do for amuzement iz another qnestion i kant answer, but sum ov the best read and heavyest thinkers amung the naturalists say that they hav target excursions and heav their javelins at a mark; but i don't imbibe this assershnn raw, for i never knu enny boddy, so bitter at heart as the bees are, to waste a blow.

There is one thing that a bee does, i will give him credit for on mi books—he alwas attends tew his own bizzness, and wont allow any boddy else tew attend tew it, and what he duz he duz well, you never see him altering enny thing, and if they make enny mistakes it is after dark and they aint seen.

If bees made haff as menny blnnders az the men do, even with their javelins, every boddy would laff at them.

In ending oph this essa, i will cum tew a stop by concluding, that if bees was a leetle more pensive, and not so darned peremptory with their javelius, they might be guilty of less wisdum, but more charity. But you kant alter bng nature without spileing it for ennything else, enny more than you kan an elephant's egg.—*Beekeepers' Magazine.*

Floriculture.

The Early Flower Garden.

Nearly every one loves flowers, but many do not have them in their gardens because experience has not taught them to make selections that will stand our light frosts and snmmer dryness—that will not require too much attention or too frequent replacing. House plants and the tender annuals are for those only who have time and opportunity to attend to them properly.

Permanent plants for the garden should be hardy perennials from which an abundance of flowers may be cut for bouquets. These can be bought from any florist, or raised from seed in one or two years. Of snch plants, florists generally have carnations, veronicas, vincas, violets, tritoma or red hot poker, verbenas.

Some florists have a stock of good old-fashioned plants, such as sweet williams, oanterbury bells, chrysanthemums, polyanthus or auriculas, scarlet lychnis, pnrple lychnis or ragged robin, spirea japonica, iris, white, purple, blue and yellow columbines, peonies, pansies, bleeding hearts, foxgloves. The greater portion of this list will grow with the first rains, requiring but little water to keep them alive through the summer and the soil to be loosened around them in the fall. Such plants should be purchased early before they make much growth.

Of annuals, the sweet pea, larkspur, nanophilas and collinsia do well everywhere.

For flowering shrubs, few are better than syringas, laurestinas, calycanthus, and spireas; for viues, the maurandia, cobea, Australian pea, the various honeysuckles, clematis and the smoke vine.

For rapid bloom in the garden nothing excels the varieties of Dutch bulbs—hyacinths, crocus, tulips, narcissus, jonqnils, anemones, ranunculus, scyllas, etc., all hardy, beautiful and nearly all sweet scented.

French hybrid gladiolas supplement Dutch bulbs with an endless variety of color, and are hardy enongh to remain in the gronnd.

Dutch bulbs, with the exception of the hyacinth, do not deteriorate but increase by division, so that a small outlay, in a few years, will produce a large display.

As bulbs require but little room, they may be planted between larger plants, and, when they ripen, can be removed or left in the ground.—*H., in Salinas Index.*

A Handsome California Vine.

Physianthus Alpinus is a curions and handsome vine, good for out-door decoration, where the Madeira vine will flourish. It is a native of California, of vigorous habit, growing in length from 15 to 20 feet in a season. Its flowers are white and fragrant, and about three-fourths of an inch across. It belongs to the Asclepiads, and like some other members of this family, its flowers are so constructed that insects are caught by them. Around the central organs of the flower are arranged five trap-like processes, alternating with the five pairs of anthers cells. These traps are formed of two parallel triangular pieces, approaching each other closely at the angle next the center of the flowers, and spreading apart slightly at their onter extremities. In the crevice thus formed the tongnes of butterflies and the legs and antennæ of ants are caught, the insects being attracted by the honey secreted on the inner surfaces of the trap. It is not uncommon to find as many as nine insects caught in a single flower, and occasionally three may be found in one trap. The object of this seemingly cruel arrangement in the flowers of the Physianthus is not well understood. Apparently there is no action of the plant in the matter. The insects are canght simply by their awkward manner of retreating from their honey feast. They get into the narrow part of the opening, and finding themselves held, they struggle frantically toward the upper central part of the flowers, wedging themselves in more tightly with every motion in that direction. If fertilization is the object, it is but very imperfectly attained by this method. as the pollen masses are seldom disengaged from their cells by the struggles of the insects. Food is evidently not the object, as the flowers wither and fall with the insects in them unappropriated, and if at any time before death the flowers are torn apart and the insects freed, they appear lively and uninjured. The physianthus is not commonly cultivated, but may be obtained of the nurserymen. It well repays the cultivator, both by its beanty and by the interesting field of observation which it affards.—*J. M. Milligan, in New York Tribune.*

Arboriculture.

The California Chestnut.

We had often heard of the California chestnut, says the Sonoma *Democrat*, but did not believe in its existence. Traveling recently in northern Mendocino county, jnst after leaving Willetsville our attention was attracted by a magnificent tree near the roadside, which we at once recognized as the chestnut, of which we had so often heard but never before saw on this coast. Fortunately, though we were not then aware of it, Dr. A. Kellogg, a botanist of San Francisco, was a fellow passenger. He had often visited that part of the State before, and was perfectly familiar with the tree and its habits. He kindly consented to give us a written description for publication, and it is with pleasure that we present to our readers the letter of the accomplished gentleman, on one of the most beautiful productions of our California forests:

Meeting as traveling companions on the stage route from Little Lake to Cahto, the writer was highly gratified to find a stranger so justly appreciative of the elegant beauty, symmetry and grandeur of our golden-leaf evergreen chestnut (formerly *Castanea chrysophylla*, now *Castanopsis chrysophylla*).

The title of golden-leafed chestnut—as the suggestive name implies—is derived from the observation that when stirred by the breeze, the otherwise dark, glossy-green, laurel-like leaves turn their under snrface to the sun, reflecting a softened sheen of gold, lighting np its face with a cheerful smile against the somewhat somber background of green; also the young and tender twigs, with their vernal foliage clad in yellow velvet, hold the attention effectually and steadily to its true ideal characteristic feature. This latter quality, seen from a distance in the spring season of the year, awakens a charming illnsion as if the beholder were viewing a magnificent evergreen tree clad in golden bloom. Another California forest tree—and we have many such—occurs to me as I write, showing this illusive feature, to the eye more ornamental than the never-changing foliage, shrubs and trees, the sickly work of men's hands; we allude to the dense-flowered chestnut oak, tanbark oak of the forest vandals. (*Quercus densiflorus*). In this oak, the young twiggy tufts are an almost pure velvety white against a lighter green background. Tnis, like the other trees, is a very choice landscape ornament, simnlating it in flower, foliage, and often in general symmetrical outline, though of somewhat more open and spreading habit. It is an evergreen and claims close botanical alliance with the chestnut. The one bears a prickly chestnut burr with hard-shelled sub-triangnlar sweet nuts; the other, or oak, has the mossy cup and large well-known acorn. But to return from this digression, which was deemed advisable by way of contrast, as so many are apt to confound the two trees, which leads to confusion, and may lead to controversy.

The huge dimensions of this tree struck yon with some snrprise. Trees, five to six feet in diameter, 40 to 80 clean trim bark, 100 to 150 feet high, and such a magnificent ornamental shade and shelter for certain fog-line localities of this State, and for foreign climate generally! Besides, for valuable timber, the wood splits straight and as readily as its Eastern cousin, is soft and is easy to work; but becomes very hard when dry from age. As seasoned stuff, it planes and polishes remarkably smooth, and is valuable when stained for the finest cabinet work; is very tough, and valuable to the wheelwright. Your expressed desire to aid in the diffusion of nseful intelligence, even in the midst of an exciting political canvas, is itself prophetic of the "good time coming." If the attention of the public is often invited to these objects, we may reasonably hope during the next century that some progress in due appreciation may result. The popular press is the best of all educators, and the dnty of the local representative is best fulfilled by aiding and directing us in every way that develops our home resonroes, adds to the delight which all, more or less, experience in viewing forests and fields and all the more beautiful objects of the landscape.

It seemed needless to add, the nuts are among the articles nsed as food by the Indians of this coast. This tree, in some localities, dwindles down to a paltry bnsh, bearing frnit on its top when barely a foot high to as high as your head. It goes under the half borrowed Southern Atlantic name, with the local prefix of California, chinquapin chestnut, which is said to be of the same species as the large tree you beheld.

The Vineyard.

A Placer County Raisin Enterprise.

We recently, says the Stockton *Independent*, paid a visit to the vineyard of the California raisin company, in Placer county, a few miles north of Rocklin. The company started some three years ago among a number of San Francisco capitalists, who propose to test to the utmost the capabilities of California for producing raisins, and in order to do everything with all proper thoroughness. no money has been or will be spared in perfecting all the conditions for success. The first step was to lease a tract of land in a favorable spot for 14 years, the owner of the land taking one-fourth of the stock, and, as president of the company, overseeing all the arrangements. The spot selected could scarcely have been better. It is a long, narrow valley, with a sonthwestern exposure, surrounded by high hills that completely shelter it from severe storms or high winds.

When the company began work the valley was covered with a heavy growth of oak trees which required to be cleared away. They first commenced with 225 acres, which they surrounded with a rabbit-proof fence. On the hillsides above the fence a berme ditch was dug to prevent the storm waters from deluging the vineyard. The plowing was most thoroughly done. The first breaking was done with a single plow to the depth of eight or ten inches. It was then cross-plowed a little deeper and followed up with a subsoil plow that stirred the ground to a depth of two feet. It was pretty thoroughly pulverized by this time, but it was then cultivated and harrowed. The value of this treatment is manifest in the fact that at the time we visited the vineyard, just before the first rain of the season, when there had been no rain or dew for six months, we could kick up moist earth but a few inches from the surface, and the soil was light and fluffy, while in the same soil just outside the vineyard one might dig down to bed-rock without finding any moisture. This thorough plowing was given three years ago, and it has never required anything but light cultivation since to maintain the pulverized, loamy condition of the soil.

The soil, which is abont six feet deep over the rock, is doubtless formed of disintegrated granite enriched by the growth of the trees upon it. After this thorough preparation of the soil the vineyard was carefully laid out for a convenient raisin vineyard, by leaving abont 20 acres for dryiug ground, in patches of about one acre each, taking advantage of every knoll with a sunny exposure. The vines are laid ont with the utmost precision, the rows being eight feet apart and as straight as a chalk mark, with roadways of greater width at short intervals. The vines selected, which were started from cuttings, are of the variety known as White Muscat of Alexandria, which they consider the best for raisins. Many of the vines bore fruit this year, and next year the company can begin to dry raisins. The preparation of the drying grounds is the next consideration to be attended to, and will involve considerable expense.

The plan to be adopted is that pursued in Spain, the home of the raisins. The gronnds are to be subdivided into compartments of perhaps 8x16 feet, each to be surrounded by an adobe wall about two feet high, the floor to be prepared and made smooth with adobe, and each compartment covered with a canvas drawn over at night. The adobe will thus retain the heat of the sun during the day and by covering it up the heat will be longer retained and the raisins continue drying through the night. This vineyard has already cost about $70 per acre, and will perhaps oost $30 or $40 more before any revenue is derived from it. The experiment on the thorough and extensive scale pursued in this undertaking is an interesting one, and if snccessful should be eagerly watched by all the vineyardists of the State. There is one lesson shown by the lusty growth of the vines and the moist and pulverized condition of the soil throughout the year, which can be of use to every farmer or tiller of the soil in the State, no matter what his occupation, that is, the dread of drouths can be obviated by thorough cultivation of the soil, and the urgent need of irrigation can in many places be entirely done away with by thorough and deep tillage.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is in Davis street, north-east corner of California.

Grange Directory.—A full list of Subordinate Granges, Masters and Secretaries, of California and Nevada, is published as often as once a quarter in this department. See issue of Sept. 23d for latest insertion

P. of H.—Subscribers who pay fully one year ($4) in advance for the Pacific Rural Press can receive the California Patron *free*, or other premiums. See our premium list in another column.

The National Grange.

The National Grange, P. of H., began its tenth annual session at the Palmer house in Chicago, on the 15th of November. Though nominally the tenth, this session is really only the fourth which has possessed any really national interest—the first six sessions having been held in Washington, and attracting little or no public interest.

The principal business which has characterized the session has been the discussion of the plan of co-operation or conditional alliance for direct trade and interchange of products between the productive classes of this country and those of Great Britain, and the project for a recognition of the Grange as a real factor in the Government of the United States by the establishment at Washington of a national bureau of agriculture.

The First Day,

Was devoted mainly to organization and preliminary business.

Worthy Master John T. Jones, soon after the opening of the Grange, presented his annual address, a very interesting and valuable document, the length of which, however, precludes its publication to-day. It will be given next week.

The Second Day.

The session was mainly occupied in the receipt of petitions, communications and memorials, which were referred to the appropriate committees. Worthy Master Jones presided in the forenoon, but after recess Overseer Woodman occupied the Master's chair. Twenty-seven States answered to the roll call on the second day. Among the recommendations made were: To hold biennial instead of annual sessions of the National Grange; the reduction of dues; abolition of the sixth and seventh degrees, and the establishment of central warehouses for the storage and sale of tobacco and wool.

The report of the Worthy Lecturer, Mr. Smedley, of Iowa, was read, from which it appeared that, during the year he had labored, in answer to special calls, in 14 States, and reported the condition of the Order in nearly all those States as most encouraging. The principles underlying the organization seemed to have taken deep hold on the hearts of the members of the Order in those States, and as fast as the work of organization was completed, the Order was turning its attention in those practical directions where real success was to be found. He had been everywhere received in the kindest and most fraternal spirit—a spirit which left the regret that he could only meet a small portion of the urgent calls for his services.

He had never before realized the importance of this branch of our work. The very fact of an officer of the National Grange visiting Subordinate Granges seems to encourage and strengthen the cause and to incite to renewed efforts. It is of the highest importance that the bond of fraternity between the constituted authorities and the Subordinate Granges should be made as close as possible.

A special committee, consisting of Messrs. Ryland, of Louisiana, Dane, of Kentucky, and Mrs. Jones, of Arkansas, was appointed to prepare and report a plan for the exhibition of products of the several States at future sessions of the National Grange.

A very interesting letter was read from Bro. J. P. Sheldon, of Derbyshire, England, who has been commissioned as national deputy, to introduce the Order into Great Britain. He considers his task a very arduous one and one requiring much tact and patience.

The farmers of England, unlike those of America, have been too long accustomed to a habit of subserviency to landlords to be quickly induced to embark themselves in an organization which would open out before them a totally new kind of life, so far as their social intercourse is concerned. Again, the landlords of that country would view with an undefined jealousy any movement among tenant farmers which would embrace the principle of independent co-operation.

They would regard it as antagonistic to their class, as tending to diminish the powers and privileges they have so long enjoyed, and the majority of them would oppose it accordingly. These appear to be the chief obstacles to contend with.

With regard to international Grange co-operation he says: "When we have a national Grange in England, affiliated to that which already exists in America, much good in the interests of agriculturists on both sides may be done. The productions of the various necessaries of life in both countries may be regulated in such a manner as to anticipate and prevent the disastrous fluctuations which we at present blindly bring about by over-production, now of one kind, now of another, but more particularly on this side. It will not be a difficult matter to ascertain which commodity will be most in demand in any given year, and attention may be directed to that one accordingly.

Again, English Granges may in the future find a profitable outlet for the surplus capital in advancing sums of money to their American brethren. These transactions could be advantageously conducted through the national Granges. Individual securities need not be transmitted to England, but the American national Grange would be in a position to take charge of these, itself giving in lieu thereof a collective or general security to the English national Grange. On this basis an immense co-operative business may be done in a handy and profitable manner for both parties. And in addition, last though not least, I may mention the bond of fraternity which would then be established between the two countries, a bond which would make a war between them almost impossible, and which would exercise an immense moral influence over the world.

If this last paragraph has any truth in it, the author should be encouraged by the peace-loving statesmen of both countries.

Bro. Sheldon informs Worthy Master Jones that he had received letters from Mr. Gilbert Elliot, of the Bombay presidency, asking for information in regard to the Grange. Mr. Elliott, though connected with the civil service in India, was the owner of a large farm in Tasmania, to which place he expected soon to remove, and where he thought the Grange might be introduced to great advantage to the farmers.

Fourth Day

Was largely occupied in routine business and other matters of importance to the organization, most of which were submitted to special committees. Among other matters of importance was the introduction of the following preamble and resolutions, looking to a higher recognition of the agricultural interests of the country in the councils of the National Government than that overshadowing industry has heretofore obtained. The resolutions were referred to a special committee and laid over for further action:

Whereas, It is universally admitted by all men that agriculture is the true basis of individual and national prosperity, therefore its due encouragement should enlist the sympathies and endeavors of every citizen of every class; and

Whereas, The agricultural masses compose at least one-half of the population of the free States of America, upon whom ultimately rest the taxes which sustain the government; and

Whereas, The political affairs of the government, for a hundred years past, have, from the very nature of things, been chiefly in the hands of the professional, the manufacturing and mercantile classes, which always have, do now and will always in future look wisely to their special interests in adjusting governmental burdens, or secure the tender regard of the government toward themselves; and

Whereas, It is the duty of wise and just legislators to see that the blessings and burdens of government are shed or laid with impartial rule upon all classes alike, and claiming for ourselves no more of the happiness, wealth and general prosperity of every citizen would seem to share in the due and proper encouragement of American agriculture; therefore

Resolved, That American agriculturists demand that they shall be recognized as a real factor in the government by the establishment of a Bureau of Agriculture, to be presided over by a Cabinet officer, who shall organize the same upon a plan to be devised by the wisdom of Congress, which shall embrace to the fullest the agricultural interests of 20,000,000 of the people, and whose counsel and advice shall have due weight accorded to the same on all matters affecting the agricultural progress, and also our public affairs generally.

Resolved, That we unite as agriculturists in one common cause to secure this object from Congress and the Chief Executive without regard to political affiliation, and that the Executive Committee are hereby instructed to send this preamble and resolutions to each member of Congress of the United States, and that each State Grange prepare and sign petitions setting forth our desires for the accomplishment of this object as the very highest that can engage our common endeavors; and we do hereby earnestly call upon all Grangers in the United States to give us their assistance, and every farmer and planter not a Granger to give his aid; and, furthermore, that the Executive Committee shall communicate this preamble and resolutions to every State Grange, and solicit the co-operation of every Granger in the United States, and that every farmer and planter throughout the land, in such form and manner as to them may seem best calculated to attain the objects set forth herein.

Fifth Day.

Under the orders of the day, the hearing and discussion of the report of the special deputy and commissioner to England, Brother J. W. A. Wright, was taken up and fully discussed. As regards the growth of the Grange in England, Brother Wright, in summing up, says: First, the minds of English farmers are now for the first time fully prepared to accept such a plan of organized co-operation as the Grange offers them. Second, they are, however, almost totally ignorant of the purposes of the Grange, its great and good work, and its real adaptation to their pressing wants. Third, but under the efficient guidance of our present deputy there, who was greatly aided by the editor of the London *Farmer*, the seed sown has been fostered, and they are being gradually but surely prepared to adopt our system, though it may be in a slightly modified form. Mr. Sheldon says to me in a late letter: "The Order will take root *in time* in this country. It cannot easily fail to do so." Fourth, if the Grange ever grows and flourishes in Great Britain, it must be among the tenant farmers and small landowners, who are distinctly separated socially and in their material interests from the landlords on the one hand and the agricultural laborers on the other. The latter have been combined in unions by Mr. Joseph Arch and his co-workers.

Herr Prenzel, a farmer near Berlin, Prussia, writes me that the facts are very much the same among German farmers. In regard to co-operation Brother Wright says: First, I may say that the general subjects, principles, and sympathies of our Patrons of Husbandry and European co-operators are identical, and hence we are natural allies. Second, that there is a general agreement among the leaders of co-operation in England to bring about direct trade between our Grange Business Associations and their co-operative societies. Third, that a great majority of them favor the general principles involved in the Mississippi Valley trade company, because its principles are based on the plans of co-operation so thoroughly matured among them. Fourth, that enough of them and their societies have already become enlisted in it to combine in its favor the main co-operative strength of the United Kingdom. Fifth, that they rely chiefly on the strength and sympathies of our Order to make such direct trade a success. Sixth, that unless the Mississippi Valley trade company, as they now agree to modify it into a more liberal, comprehensive, unsectional, and truly national form of an Anglo-American co-operative company, is successfully placed on a working basis, and that soon, we have no good reason to expect, for many years to come, the establishment of the direct trade mutually desired between American and English co operatives.

In urging action Bro. W. says: Our English brethren are anxiously waiting results here. They need the encouragement we can give them by practically extending the helping hand. Let us do nothing to retard the progress of this good work. At least let cordial resolutions be passed approving the proposed alliance, and the several methods of bringing it about. It is greatly to be hoped that the National Grange will recommend the subject proposed by you in your July circular, so modifying its general ideas, if necessary, in regard to size, number and location of our various local and branch associations as may best meet the wants of each locality. Then, at such time and in such way as is decided best, meetings may be called at points most suitable to begin this work. Let us make our system as uniform as possible, yet leaving as much freedom in discretionary powers as our members in each State or district may desire. Some may prefer to limit their work to inter-State sale and purchase; others to unite with this some shipments of farm products to Europe; others to ship to and from our foreign allies; others to even add in the future a manufacturing arm, or productive co-operation. Some may prefer to maintain the present system of State agencies. Let them have perfect liberty to do as they choose. Beyond question the pure form of co-operation is best. We can most safely spend for its establishment the time and money necessary for all such work. No great amount of paid-up capital is needed. A good acorn can in time make a good oak. Let us make a beginning.

The report was freely discussed and finally referred to the Committee on Co-operation, with instructions to report definite action during the present session of the National Grange.

Appointments for the State Lecturer.

Patrons, farmers and all parties interested, are hereby notified that open Grange meetings will be held on the days herein set forth, at which times and places Bro. Blakey Pilkington, Lecturer of the State Grange, will address them on important subjects connected with the Grange movement. The following appointments have been made:

Petaluma	Tuesday, Dec. 12th.
Napa City	Thursday, Dec. 14th.
Suisun City	Friday, Dec. 15th.
Elmira	Saturday, Dec. 16th.
Woodland	Monday, Dec. 18th.
Sacramento	Tuesday, Dec. 19th.
Yuba City	Thursday, Dec. 21st.
Chico	Saturday, Dec. 23d.

I earnestly request the Masters and members of the several Granges to exert themselves to the end that large attendance may be secured. Not only members of the Order, but also farmers who are not members, are cordially invited to attend, for they, although not members, are individually interested in the Grange movement.

We hope to be able to keep the Lecturer in the field during the coming year, or at least until he visits a large part of the Granges in the State. As it will be impossible for him to visit each Grange, it was thought best to call meetings in the most central places as they present themselves from this standpoint. Further appointments will be published in the Rural Press next week.

Amos Adams, Sec'y State Grange.
November 28th, 1876.

Patrons, Take Notice.—We call the attention of Patrons, farmers and all interested, to the announcement by Amos Adams, Secretary of the State Grange, of the appointments of meetings to be addressed by Blakey Pilkington, Esq., Lecturer of the State Grange. A new feature in these meetings is, that the invitation is general to all, whether Grangers or not, to attend, and we guarantee to all a rich treat in the lectures of Mr. Pilkington.

Grange Meeting at Santa Clara.

Editors Press:—We had an old-fashioned Grange meeting at Santa Clara on Saturday last, a large representation being from San Jose Grange, as well as some outsiders, the meeting being an open one.

Bro. Pilkington, Worthy Lecturer of the State Grange, held his audience for an hour and a half in profound attention, passing from subject to subject, not wearying in any, but interesting and instructing his listeners.

Our new Lecturer enters into his work with a feeling of deep interest, which, added to the vast fund of facts and arguments he presents in a terse and forcible style, makes him effective as a public speaker. We heard more than one wish expressed that such addresses could be delivered in every county in the State, as the amount of good would be incalculable. I do not know whether our Executive Committee would feel authorized to send our Worthy Lecturer at the expense of the State Grange or not, or whether the means at their command would justify this course; but we need the aid of such men of force who have courage and faith, and an ability to do as well as to think; men who can inspire their hearers with similar feelings.

We had the satisfaction of taking our new Lecturer under our own roof, and can appreciate his ideas regarding the "development theory." He does not doubt the final success of all our worthy undertakings so long as the people will agitate, agitate, agitate!

In all this he sees progress, though the results are not always visible at first. But he points with pride to the Grangers' Bank, the Grangers' Business Association, the Farmers' Mutual Fire Insurance Association, and to the scores of co-operative organizations all over the broad land, as monuments of our work already accomplished; for while there is less of enthusiasm manifested than at first, and while some have fainted by the way-side or become weary in the effort, the real workers have settled down to a basis of action which is necessary to solidity.

Let us take the view of our Worthy Lecturer, that all progress means development; that true development, though it be slow, is sure; and that it is impossible for us to go backwards so long as we hold together and work for our noble cause. Fraternally yours,

I. A. Wilcox, Dist. Deputy.
Santa Clara, Cal., November 23d.

Testimonial to a Worthy Master.

Editors Press:—Please insert the following resolutions, which have been adopted by South Sutter Grange, No. 207:

Whereas, The change of residence of our Worthy Master, Bro. Thos. Boyd, has made it necessary for him to make his resignation of the office of Master of this Grange; and

Whereas, We truly regret the separation with our Worthy Master, therefore be it

Resolved, That we tender him our warm and hearty thanks for the generous, prompt and courteous manner in which he has presided as chief officer of this Grange; and further

Resolved, That we do cordially recommend him to Patrons everywhere as a worthy brother, a good citizen and a true friend.

Resolved, That our sympathies and gratitude go with him, our brother, in whatever course the paths of life may lead him, and that his future happiest anticipations may be realized.

Resolved, That a copy of the preamble and resolutions be placed on the records and that a copy be sent to the Rural Press for publication.—Committee: Jas. C. Harris, Wm. G. Brown, Roger Mahon.

In Memoriam.

South Sutter Grange, No. 207.

Whereas, We have learned of the demise of our worthy sister, Sarah Hammond, who was away from us on a visit to relatives and friends East; and

Whereas, She was called away by a summons of our Divine Master, therefore be it

Resolved, That in the death of our sister, Sarah Hammond, our Grange has lost a true and worthy member, her family a kind counselor and the country an exemplary citizen.

Resolved, That we do truly sympathize with the family of the deceased in their bereavement; that these preambles and resolutions be placed upon our record; that a copy be sent to the relations of the deceased and also to the Rural Press for publication.—Committee: James O. Harris, Roger Mahon, D. D. Marvin.

Denverton Grange, No. 123, Solano County:

Whereas, It has pleased the Great Master of the Universe to remove from our midst our beloved sister, Elizabeth Mein, therefore, be it

Resolved, That in the death of our sister, Denverton Grange has lost a worthy member, the husband a loving wife, the children an affectionate mother, and the neighborhood a highly esteemed member.

Resolved, That we as a Grange extend to the bereaved husband and children of our late deceased sister, our heartfelt sympathy in this, their great and irreparable bereavement, and sincerely hope when our labors on life's farm here below are ended, we may all be as well prepared to enter the great field above, in obedience to the call of the Heavenly Master, as the departed sister whose demise we now mourn.

Resolved, That as a token of respect that our hall be draped, and that the usual badge of mourning be worn for 30 days.

Resolved, That a copy of these resolutions be sent to the husband of our deceased sister, a copy spread upon the minutes of the Grange, and a copy sent to the Rural Press for publication.—Committee: John B. Carrington, G. C. Arnold, Christian Nelson.

The Youngest Grange.—The Fresno *Expositor* speaks of the new Grange at California colony as follows: The Raisina Grange has determined to build a Grange hall. Its membership is now so large that there is not a room on the colony large enough to hold them. The hall will be a temporary building and will be constructed within ten days on a lot donated to the Grange by Messrs. Chapman and Marks.

Agricultural Notes.

California.

ALAMEDA.

Wheat Growing.—*Bulletin*, Nov. 24: We have more than once referred to the most feasible methods of restoring farms which have been overcropped and worn out for wheat. A good illustration of what may be done in this way is furnished at the Blacow farm, in Alameda county, a place well known in connection with the famous French merino sheep. The farm, however, was not specially run down. There are somewhere about 450 acres. One-half of this land is plowed every spring, and is allowed to lie in summer fallow. The other half is pastured by a flock of thoroughbred sheep. Late in the summer, or just before the autumn rains, the half which has lain in fallow is sown with wheat, and the seed is harrowed in. When the rains come, and the grain is up a foot high, the sheep are turned on, and it is pastured down pretty close. This makes the grain stool out better, and insures very large crops—as much as four tons of wheat hay being cut to the acre. The result is, that on one-half of the land seeded and the other half in summer fallow, the owner gets a larger product than he would if he cultivated the whole area; and he gets, in addition, a large amount of pasture. We ought to say that the sheep are permitted also to run over the plowed ground until the time of seeding comes round. Perhaps the best result of all is that the land is constantly improving. The process of restoration in this way is attended with immediate profit, and is so satisfactory withal that the wonder is that some such process is not more generally adopted in the treatment of small farms.

LAKE.

Coyotes.—*Bee*, Nov. 23: These varmints are proving to be great and damaging pests to the sheep men of Burns and Long valley. For a period of six months they have been making devastating raids upon the flocks in these localities, and have been doing so with the greatest impunity, strychnine to the contrary notwithstanding. These dangerous animals have been educated to the point of eating no meats other than their immediate victims and absolutely eschew all dupes and poisons.

Work.—The farmers of this county are just now as busy as bees with their seeding. They intend to "make hay while the sun shines."

LOS ANGELES.

Westminster.—Anaheim *Gazette*, Nov. 25: Our farmers are becoming more and more convinced of the folly of growing only barley, and are preparing for a diversity of crops. We also notice an increased determination to raise stock and thresh and sack grain by feeding it instead of by machine. If these points are carried out it will be a great advantage to the individual growers, and the entire community.

Olives.—A wagon load of olives from the old mission orchard, at San Juan Capistrano, was brought into town for sale yesterday.

MONTEREY.

Carmelo Valley.—*Democrat*, Nov. 25: Describing the Carmelo valley, a writer to the *Californian*, "Bertie Harold," mentions the following: He says that the butter made in the valley always commands the highest San Francisco price. Last Christmas, Mr. Berwick sold a steer weighing 1,002 pounds for $76. Snively Bros. have an orchard which yields peaches of the finest flavor, in it being an almond tree, five years old, measuring 33 inches in circumference. Freight on a box of butter sent from these ranches is, by way of Salinas City to San Francisco, 40 cents, while by way of Monterey it costs one dollar. The Laurelles ranch is described at length, as being in a highly improved condition, with the means, through a costly and thoroughly constructed ditch, to irrigate 1,500 acres of land. Last, the letter mentions that James Meadows has in his garden orange trees which are flourishing finely.

Grain on Hand.—There are, we are told, about 1,500 tons of wheat and 10,000 tons of barley, belonging to the farmers of this valley, not yet disposed of, and likely to have the benefit of the rise caused by European complications. It will be seen that the great bulk of the grain produced by our valley this year has passed into the hands of exporters.

Reclamation.—The Sansal lagoon reclamation scheme is progressing most satisfactorily, and it is now past any question that everything proposed by its projectors will be accomplished. The ditch has already been cut deep into the land which is to be brought under the plow through its instrumentality, the marsh on either side as it advances being drained of water and the soil beneath coming up to the sun. The whole tract, about 700 acres, will be of the choicest quality, fit for every variety of seed, and no doubt capable of yielding several crops during the year. Wm. Vanderhurst, Jesse D. Carr and J. B. Iverson are the men who conceived the project and are working it out, the last named superintending the work in person.

Barley Buying.—*Index*, Nov. 23: L. H. Garrigus, of Salinas, recently purchased 200 tons of barley from Messrs. Kilburn & McKee, of Gonzales, paying therefor at the rate of 92 cents per cental, which, we are informed, is seven cents higher than had hitherto been paid for barley here this season. But it was of a very superior quality, and Mr. Garrigus bought it for the Chicago trade.

NAPA.

The Close of the Vintage.—St. Helena *Star*, Nov. 25: The Stars and Stripes were hoisted Wednesday over Krug's wine cellar in honor of the close of a long and arduous season's work—the end of the vintage of 1876. The crushing was not actually through on that day, though thought to be, and next morning a run of 150 boxes completed the work—the long and weary round of near three months since September 1st—during which time the crushers of that great establishment have carried through their rapacious maw nearly 2,000 tons of grapes, and yielded to the wine-drinking world 265,000 gallons of Napa's choicest vintage. The occasion has seemed a fitting one for reviewing the whole season's work and seeing how far correct our original estimate was of St. Helena's product for the present year. Accordingly, we yesterday went the rounds of the various cellars and obtained from each the figures of the season's business. We find our original figures to be within bounds, the result exceeding the estimate and the grand total to foot up to the enormous amount of 848,350 gallons.

SACRAMENTO.

Sugar Ball at Isleton.—*Record-Union*, Nov. 22: The proprietors of the California sugar manufactory at Isleton have made arrangements to give a grand ball at that place this evening, and intend to follow it up with a similar festival every year. Everybody in that vicinity will attend that can, and there will probably be some visitors from Sacramento as well. The sugar factory buildings, by the way, are approaching completion quite rapidly, and in two or three weeks the company will be able to get up steam to run a lathe and other machinery necessary to be used in getting the ponderous sugar manufacturing machinery in position. It is in contemplation to establish a fruit canning establishment in the immediate vicinity of the factory.

The Outlook.—*Bee*, Nov. 20: Never in the memory of the oldest inhabitant did a California seed time open with greater promise than now. Early and abundant rains; free, warm, open weather, giving time to plow and to sow; prices of grain on hand going up, while the prospects of a European war of great bitterness and duration are better than at any other time since the first Napoleon returned to France from his prison house at Elba, are positive inducements for farmers to cultivate largely. And the red fields, many of which are now being clothed in green by the young grain, testify most positively that the husbandman is fully alive to all the facts and surroundings of the case, wherefore the present promise is that the year 1877 will see in California a larger cultivation than any of its predecessors. The young grass is so far advanced in most places that fair winter feed for the stock is secured almost beyond a peradventure, frost or no frost.

SANTA BARBARA.

Wharf at Guadalupe.—*Telegraph*, Nov. 18: We understand that Mr. St. Ores is agitating the construction of a wharf and landing at the mouth of the Santa Maria river. The cost of such a landing is estimated at $13,000, and Mr. St. Ores' plan is to form a joint stock company of 100 shares at $150 per share. Several of our principal farmers and others have already signified their willingness to subscribe for shares, and if the requisite number come forward, Mr. St. Ores will commence work at once. We would like to see this project succeed, and commend it to the careful consideration of our farmers.

SANTA CLARA.

San Jose as a Shipping Point.—*Mercury*, Nov. 25: To those unacquainted with the immense quantities of the products of Santa Clara valley which are annually shipped from this city, it may be interesting to know that for the month of October, 1876, our shipments were nearly five times as much as the cities of Sacramento, Marysville, Stockton and Oakland combined, and more than one-third the amount which was shipped from San Francisco during the same time. For the month of October the total shipments from all these points were:

San Francisco, lbs	13,013,100
San Jose	4,418,400
Sacramento	695,000
Marysville	186,400
Stockton	11,800
Oakland	2,600

Of these shipments, 2,643,100 pounds were barley, 1,441,400 pounds of fruit, 197,600 pounds canned goods, 102,100 pounds mustard seed and 4,500 pounds of wine. The figures are gratifying, in establishing the advantages which San Jose presents, and which are taken advantage of by producers and manufacturers, in direct shipment from this city to the Eastern States. Many outside of this valley esteem it more as the home of the vine and the various small fruits which so largely supply the San Francisco market, than as a section devoted in any degree to the growth of cereals. The figures above given show that nearly twice the amount of fruit is shipped from this point than the total shipments from the other cities combined, while it is but a little more than one-fourth our aggregate shipments, 2,643,100 pounds of barley alone entering into the quota as from the Santa Clara valley. With our present rate of progress the years are not far hence when San Jose will present a still more favorable comparison with its larger neighbor in the shipment of products from this valley, as in the line of fruit it already leaves it with a very poor showing.

SONOMA.

Fall.—*Russian River Flag*, Nov. 23: Mountain ranchmen report that so favorable a season for stock was never known in this section. The early rains brought on the feed, so that sheep and cattle find good pasture on the new grass. Farmers on the bottom lands, for a time after the heavy rains, found it impossible, in the majority of cases, to get at their corn or potatoes on account of the soft ground; but at this writing the harvest of both has been made, and the crops are thus saved from the loss which would have occurred had the season continued wet. Plowing and seeding go on auspiciously. The weather is simply perfect. The evenings are cold enough to make the cheerful fire-place welcome. The mornings, though sometimes frosty, warm up early under the influence of the sun rising through a cloudless sky.

Alexander Valley.—A most attractive and thriving section of country is Alexander valley. A road, good in summer and winter, six miles in length, connects its western boundary with Healdsburg, its market town. A bridge, one of the most extensive and substantial in the country, to span the river, is almost completed, which increases the value of every man's farm in the valley 25 per cent. Its soil varies, from the rich river bottom to the upland, and then the oat hill pasture lands. Corn, wheat, grapes and all kinds of vegetables and fruits grow never-failing and mature to utmost perfection. Roads leading through its entire length are remarkable for their hardness in winter. Comfortable farm houses, good barns and fences and several convenient school houses indicate the spirit of thrift and effect of the good society prevailing.

Potatoes.—Petaluma *Argus*, Nov. 24: Potatoes are arriving in town in quite large quantities daily. The quantity produced in this quarter is fully as large as in former years, but the number of sacks received up to date is considerably less than usual. Low prices and the prevalence of the rot are the causes to which the reduced receipts are attributable.

Cheese Factory.—The construction of Jas. Rutherford's new cheese factory on Main street, near the Revere house, is progressing, and the building will be completed about the 10th of next month. The main part will be two stories and a half high and 24x40 feet on the ground, with a one-story wing on each side 12x40. The material used in the construction of the building is the same that formed Mr. Rutherford's cheese factory near San Antonio creek, which was in operation last season. The new factory will commence operations about the 1st of January, and will have a capacity for making 1,700 pounds of cheese per day. There is no reason to doubt, but the best of reasons for believing, that this enterprise will be successful. It is in the hands of an experienced dairyman and cheese-maker, an old resident and careful business man, and he can hardly fail of success, unless the season is uncommonly unfavorable.

Gardening.—The excellent condition of the ground has given our people a good chance to garden, and we notice that very many have been busy at it during the last week or two. Every family who have even a small plot of ground should devote at least a portion of it to vegetables. They grow here to such perfection, with so little work, that every one can raise a few without interfering with the business in which he may be engaged. A half hour's work in the early morning or late in the afternoon two or three days in the week will accomplish wonders in a small garden. A few flowers should also be raised on every place. They cost but a trifle to be grown and contribute so much to the beauty of a home.

TULARE.

Large Acreage.—*Delta*, Nov. 20: Our farmers are improving their time in seeding the remainder of their summer fallow land, and the acreage of another summer will greatly exceed the last. The prospect of a war in Europe which might last a number of years is an extra inducement.

VENTURA.

Ventura Valley Farms. — Cor. Oakland *Transcript*, Nov. 24: Farmers are busily employed all through this valley in cutting down the great fields of corn stalks and stacking the stalks in winrows, preparatory to burning and clearing the land for the next crop. One hired man on this farm, yesterday, with a rake and four horses, leveled 20 acres of stalks. Mr. Collins has harvested this season 300 acres of corn, about 200 of which is of very superior quality. It is packed in sacks and hauled to the village of Ventura, and stored in the warehouse until shipped to San Francisco. But the meager profits derived from sales, not only of corn, but of barley, have induced many owners in Santa Clara valley to turn their attention to the raising and fattening of swine. Already Mr. Collins and Mr. Wilson, lessees of this farm, have some 300 hogs and shoats on the farm lists contiguous to the Santa Clara river. These are thriving wonderfully well on the corn and barley. One porker in the drove ought to become a member of Queen's menagerie. He weighs over 600 pounds, and is but nine months old. Owing to the heavy rains last winter, neither the corn nor barley yield has been as great this season as last. When the rain falls unusually early, weeds, mustard and malva spring up like mushrooms, and, sucking up all the moisture, leaves the young corn and barley without this indispensible nourishment. To insure full crops, all that is necessary is to get 48 hours' rain about the commencement of the new year. The fogs, which are very dense, will afford all desirable moisture thereafter. The central mound in this farm being a conspicuous land mark, I have taken the liberty of christening the ranch by the appellation of "the Mound ranch," in this letter. It is oval, and in extent comprises 30 acres. Although so high and dry, Mr. Wilson reaped barley enough from it this year to fill 355 sacks, and then there were untilled a belt of mustard, extending entirely around the hill, some 20 feet in width. Corn, which grows and ripens so well on this side of the Santa Clara river, is scarcely cultivated at all on the other side, where the land lies low and is very sandy. On this higher ground the soil is a strong, rich loam, capable of producing all kinds of cereals and fruits and vegetables. Hog ranches beyond the river, and between it and the ocean, are large and numerous. That of a Mr. Thompson is the most extensive. But by far the most successful of agricultural enterprises in this portion of the valley is the raising of sheep. The wool staple is pronounced the finest in this whole section of country, and the mutton can be found on the table of the daintiest epicure of the metropolis. S. Flint, Esq., took up a choice piece of land, consisting of some 500 acres, just across the river, about eight years ago. He at once commenced the business of wool raising, and now possesses some 3,000 as handsome bucks and ewes as can be found in Monterey or Marin. A deep artesian well, throwing up a perennial stream four feet above the surface, may be considered a fortune in itself in this dry country.

YOLO.

Home Comforts.—*Mail*, Nov. 23d: As the season now approaches for garden and lawn work, and for planting of trees and ornamental shrubbery, we feel like urging upon many the importance of an early attention to these little improvements, which go far in making home comfortable and attractive, and at the same time add very much to the value of property. There is nothing which requires so small an outlay that adds so much to the value of town property. A stranger is always attracted by beautiful surroundings, and will always turn away from a barren and desolate-looking lawn. A few minutes' work each day, in planting, pruning and cultivating is all that is required to make a yard beautiful—either planted in trees or shrubbery. There are some houses in Woodland, of long years' standing, which have not the sign of a tree or shrub within their enclosures, and if it is a matter of taste with those who own them, there need be no complaints from outsiders; but there is a show for a little curiosity as to whether the owners are content to dwell in the midst of such desolation. We have heard it said, and we believe it is almost universally true, that there are but few people in this part of the country that would refuse to sell their property. They are a stirring people and like to see business moving. Should a stranger make it known that he desired to purchase a home, there would be many willing to give him a show. They are not desirous of leaving Woodland, but would look up some other location in town immediately. That is the spirit which seems to pervade this community. Under such circumstances, we are at a loss to understand why it is that every effort is not made to present an inviting appearance to every homestead. We are not writing in the interest of any nurseryman or florist; we are only giving what we consider a correct idea of the manner in which our citizens can best prepare for a contingency such as we have named, for there is no question but that surroundings enter into the value of premises in the eyes of a purchaser to a great extent.

Oregon.

Farming Items.—*Oregonian*, Nov. 18: Wheat is 66 cents per bushel at Albany. A good deal of wheat was left in the field in Northern Idaho until the rains came and it has been lost. Mr. Thomas, of North Yamhill, raised 86 bushels of wheat by measurement, and 92 by weight, on one acre of ground this harvest. This is the largest yield we have ever heard of yet. Wm. Chrisman, who lives near Amity, states that in his neighborhood the farmers are busily engaged in plowing, the ground being in excellent condition, although in the forenoon it is most too wet to sow. Plowing has commenced in earnest among Jackson county farmers, as the recent rains have put the ground in good condition, and they are now endeavoring to get in their crops while the good weather lasts. The Yamhill *Courier* says: From what we can learn there will be more grain sown this fall than ever before. If the present weather continues it is all that can be asked. May the farmers reap a bountiful harvest next season. T. L. Davidson, of Marion county, who sent to the Centennial some beautiful samples of wool, has been awarded a first-class medal and diploma for Merino wool, for fineness of fiber, strength and evenness of staple, and manufacturing qualities. Citizens of Hood river have organized a company called the Water Supply company of Hood river valley, for the purpose of bringing Hood river out on the valley for irrigation. Capital stock $3,000, 150 shares, $20 each. The shares are nearly all taken. The company means business and intend having the water flowing over the valley in one year. The Dalles *Itemizer* says: "Uncle David Grant brought into town during the week two squashes, the weight of one of which was 190 and the other 187 pounds. One measured seven feet four inches by six feet ten inches. The other measured seven feet three inches by six feet nine inches. Mr. Grant raised these squashes on his place about two miles below town. They beat the big squashes at the State fair. He has plenty more of these big squashes. Mr. Grant carries the palm so far as heard from. Our Eastern readers will please take notice and govern themselves accordingly."



Honor and Honesty.

[Written for the RURAL PRESS by PHILMORE.]

A mighty pageant passed with trumpet's blare—
A great man, with high honors crowned,
An empire swayed; and heiching fire,
With thunder loud, proclaimed him great.
Ten thousand menials bent the pampered knee
And kissed the garments pure his greatness wore,
Trembling from head to foot in presence so august,
That yesterday the garh of slavery donned, among the
cr wd
His nod commands. A presence so severe
Awes modest worth and stamps him great.
Whence came he? Whence this power?
But yesterday a man, and scarcely that;
To day a god in purple vestments clad.
Turn not the pages back, lest there be fonnd
A blot amongst the records of the past;
But trace in memory up through childhood,
Youth and manhood, up to now.
A child hut poorly born and bred to toil,
Whose sharpened wits owe all to one stern law,
A school wherein is learned the bitter things of life.
The wealthy and the proud beside him sat,
Tolerant of poverty that themselves could aid,
This first great lesson taught. He profits well;
He scales the hill of knowledge step by step.
At last, from highest peak looks down,
And sees the molehills settle in the plain,
While he mounts higher still, and
Leaves the sluggish earth behind.
Science would claim him now;
The wealthy seek him, honors to bestow,
But still aloof he shuns the crowd,
And honor's crown, with ostentatious show, puts
boldly off.
At length, like Cæsar, Rome's imperious chief,
He yields to fate; ambition points the way,
And step by step he walks the ladder up.
Now on the topmost round he feels his greatness sure,
And looks not back to meaner things below.
An imp with hellish mien intrudes;
With thumb on nose he tells what few do know,
That all this pomp was aimed at from the first;
And he that would the crown bestow
On haughty Cæsar's brow could no one be
But hopeful Antony, that fain would wear a crown
himself,
And Cæsar dead, the same would fit him well.
Those noisy cheers and clanging symbols all,
With trumpet's blare, are bought
With promised gold or hoped-for pelf;
Nought grows spontaneous here,
But all designed by cunning, lying men for selfish ends.
Can honesty be found when self alone makes up the
sum of life,
And self is chief in all the world's great strife?
An honest man would seek no honors here
If greatest honors cost him half so dear.

I saw, or dreamt I saw, an honest man,
Hedged round with Cardinal virtues, envy-proof,
Heralded by love and guarded well
By noble instincts, that his path along
Pervaded all. Contentment filled the air,
Hope beckoned on with smiling cheer,
And retrospective glance brought up
With pleasant memories the buried past.
Temptation oft beset on every hand;
Vice lay along across his path,
And envy floated round unseen,
And like the fabled upas tree dispensed death;
Yet all unharmed the just man stood
Nor feared the evil train.
The imp of hellish mien stood idly by;
Half hidden by the rest, but all intent,
He saw the pageant move that bore along
The noblest work of God, an honest man.
He saw but slunk away and hid,
Nor doubted he that virtue passed that way,
Unlike the blazoned greatness that he saw
Where honesty was not.

The earth with flowers was strewn
And silken banners floated on the air with music
sweet—
And perfume-laden gales bore grateful freshness by.
High above all, serene in unsought power,
Mighty he stood; while to rs of gratitude
O'erflowed his eyes and wet his bronzed cheeks.
Not he alone but thousands wept
That felt his goodness all, and saw
True greatness reap its just reward.
Power sought he none; nor aimed he
At ambition's shining mark; but meekly rode
Among the mighty throng an honest man.

BUILD UP A HOMESTEAD.—The feeling that that you are settled and fixed will induce you to work to improve your farms, to plant orchards, to set out shade trees, to enclose pastures, to build comfortable outhouses, and each successive improvement is a bond to bind you still closer to your homes. This will bring contentment in the family. Your wives and daughters will fall in love with the country; your sons will love home better than grog-shops, and prefer farming to measuring tape or professional loafing, and you will be happy in seeing the contented and cheerful faces of your families. Make your home beautiful, convenient and pleasant, and your children will love it above all places; they will leave it with regret, think of it with fondness, come back to it joyfully, and seek their chief happiness around their home fireside. Women and children need more than meat, bread and meat raiment; more than acres of corn and cotton spread around them. Their love for the beautiful must be satisfied; their taste must be cultivated; their sensibilities humored, not shocked. To accomplish this good end, home must be made lovely, conveniences multiplied, comforts provided and cheerfulness fostered. There must be both sunshine and shade, luscious fruit and fragrant flowers, as well as corn and cotton. The mind and heart, as well as the fields, must be cultivated, and then intelligence and contentment will be the rule instead of the exception. Stick to, improve and beautify your homesteads, for with this good work comes contentment.

Only Ale.

We had moved three times in ten years. Emma, our little daughter, was nine years old, a pretty child and a great favorite of everybody; Willie was a boy of only three, and we had always been a happy and united family. When we were married the world was prospering with us. Then Charley took a partner who proved dishonest and nearly ruined him. Our handsome house was given up for a little cottage in the suburbs, and we consoled ourselves for the loss of our indoor splendors by the variety and beauty of our outdoor wealth. The children had room to grow in. Everything was novel and beautiful to them—a new Eden. Then came success again; then a widespread series of commercial troubles that again involved Charley so that he lost almost everything and we were literally poor. This time we found refuge in the home of a friend, who gave up to our use two or three rooms where we could hide ourselves in our dismay and live close.

Times grew no better, rather worse. Our clothes became seedy; the children's shoes grew red at the toes. We gave up some of what had been to us the necessaries of life—coffee, tea and sugar. Charley's cheeks grew thin and his eyes sunken. He worked with might and main to stave off ruin, but the evil day came.

It is very hard for a man to bring such news to wife and children; but in how many homes the unhappy story has been repeated of late. How eagerly I looked for his return from day to day, sure to hear the same spiritless words: "Nothing to do as yet."

One night Charley came in with a flushed face; his eyes glistened; he was not like himself, but a man under the influence of a fever. His tongue was thick for the first time in his life. He had returned to his little ones and to me—drunk. The fact was a terrible one, but why attempt to disguise it. Emma looked at me horror-stricken. I shall never forget the anguish in her face; she knew the full extent of our disgrace, for she had been brought up a strict teetotaler.

"Go into the next room, dear, and take your little brother," I said, "papa is not well." Willie, who had been sitting half asleep by my side, went willingly to bed. For a while my husband was garrulous and silly, but by degrees the effect of the liquor grew less and less, and he talked more like himself.

"I've had an offer, Em," he said; "the business is a good one and will reinstate us in our old style of living, and if I succeed, as I've no doubt I shall, I'm a made man—a rich man."

"I am very glad," I said, but indeed, so saddened was I at the first revelation of weakness that I could not speak with my usual heartiness, and he noticed it.

"You ought to be. In these times a man must turn his hand to anything that pays. It's a sin to let good chances slip through one's fingers on account of one's notions or prejudices. I'm sick of poverty. I won't delve like a clodhopper and then starve on dry bread and gruel and I won't see my children in rags."

"They have never been in rags yet, Charles," I said.

"Well, mighty near it; besides, there's no use in your objecting, you know. You will, of course you will, but understand me, it won't make a bit of difference. I have made up my mind."

"What is the business," I asked, a sudden terror clutching at my heart.

"Well, Steinberger has offered me an agency. It's not as if it were wines and liquors. I'm to sell at wholesale, that is, by the bottle and cask. You've heard of 'Steinberger's ale.' Well, you needn't look like a ghost at that. It' respectable business."

Just then there came a sob, and out of the shadow Emma stole towards us. Never can I forget the look of horror in her face; the eye so mournful, the down-streaming tears, the beseeching attitude. On she moved, till she gained her father's side and then she dropped down on her knees.

"O papa, if you do that, if you go into that awful business, how will you meet the ruined souls of poor drunkards! O papa, if you do that I can never look anybody in the face again. Indeed, indeed, dear papa, I would ask God to take me to Heaven, and I know he would."

It was a singular scene. Opposition came from a source he was not prepared for; Emma was his idol. He drew a long breath and his face changed.

"Get up, child," he said gently, though his voice trembled.

"O dearest papa, you won't become a drunkard maker," she pleaded, and I thought that, with her flowing hair, hightened color and streaming eyes, she looked like some sorrowful angel.

Another long breath and he pressed his lips together.

"Get up, my child, you have conquered," he said softly. "No! By the grace of God I won't be a drunkard maker," he said solemnly; "I tried to harden my heart, but we'd better be poor." Then she sprang into his arms and hid her joyful face in his bosom, and we all wept together, but they were blessed tears.

Little by little we have managed to regain our old position, but no ruined souls can point to us. No children cry for bread while we live on the blood stained money with which the father and husband purchased the poison of the still. Do you say it was only ale? Then I answer, "God's curse is on it all."—*Northern Messenger.*

Working Dresses.

[Written for the RURAL PRESS by "NEW ENGLAND."]

I noticed in the RURAL PRESS of September 23d a description of a wrapper to be worn about housework. It was highly recommended, but before the prize could be won a pattern must be obtained, and the dress must be cut in seven pieces, besides the sleeves and collars. In all probability the seams are goring, and, after a long experience with many kinds of wrappers, I affirm that goring seams are apt to be a nuisance, for they will stretch, more or less, and cause the bottom of the dress to hang unevenly. I have seen a print wrapper which was four or five inches longer on the seam at the side than it was each side of it. That wrappers fitting near enough to the waist to look nicely and yet loose enough to be perfectly comfortable are very much to be preferred to a skirt and sack or a work dress, the waist of which must be a trifle snug to look well, cannot be denied. They not only look better, but are easier to make.

I have a new way of cutting wrappers with straight seams in the skirt, which I consider much superior to those cut with gores; and, if possible, I will explain it so that the readers of the PRESS may be able to cut wrappers without wrapper patterns. I draft a lining just as I would draft a basque-lining, only there is but one front bias (taken two inches and a half from front). Let those who have not a good basque pattern rip up an old basque, if they have one, which can be made to fit well. There will be two pieces for the back, two side backs and two fronts. I cut a wrapper a short time since from cloth which was two yards wide, with a fold in the middle. Lay half the back seven or eight inches from the fold, with what is to be the middle seam toward the fold. Pin this on, then lay the side back eight or nine inches from it (according to width of cloth), on the same grain of the cloth, that is, the waist line of back and side back must be in a straight line, as, for instance, if the cloth should be striped across the breadth the waist line should be in the same stripe. After this is pinned in, cut around them, leaving a half inch of cloth above the waist line in the back and between the back and side back, and the cloth below the waist line all whole.

At the front of the side back slant the seam to the edge of the cloth, having the seam straight nearly all the way below the waist line. Measure down the fold as far as is required to make the dress of the right length, and cut across the bottom, slanting up a little at the sides, or a good deal if the dress is to be quite long behind. Baste the backs together, and the side backs in their appropriate places. Baste the front lining upon the cloth and slant out from the under arm seam to the edge of the cloth having straight seam below. Thus the dress is in but three pieces, besides sleeves, etc., and by piecing the sleeves under the cuffs, I use only three yards of cloth. If the cloth is print width, lay two widths together, and have a straight seam behind in place of the fold. All the measures needed are from the neck to the floor in front and back, but if one has a wrapper which is the right length, I prefer to measure that, and am sure to allow enough so that it need not be too short in front. Narrow cloth would need pieces to make the skirt wide enough, but still the seam can be made straight enough so that they may not stretch.

In the article before referred to, mention was made of a "kitchen apron, with a band that is buttoned at the back of the neck, saving the trouble of pinning a bib." I make my work aprons long enough to come clear to the lower edge of my dress, and large enough to meet in the back at the waist, and have the bibs come up to my neck in front, and extend around the neck, buttoning in the back. Then, if I come home from church, and have to get dinner while wearing a silk dress and a delicate necktie, I can take refuge behind this calico shield and not have uneasy thoughts about benzine on the morrow.

But I must not forget to mention the sleeves, as the refuge would not be complete without them. I cut a coat sleeve, not as long as for a dress, hem it at the top and bottom, and run in a piece of elastic tape, not having the piece at the top very tight. These sleeves can be slipped on very easily, and are invaluable, as it wrinkles a nice sleeve to roll it up, and it is apt to get soiled if left down. Some one may ask "why not have a high necked and long-sleeved apron?" These are very nice for winter, when the additional warmth would not be oppressive; but in warm weather it is natural to shove up the sleeves of an old or a print dress; then the extra ones would be in the way. At such times those made separate can be hanging in their appropriate places, to be taken down when one has to wash dishes in a nice wrapper or some other dress, the sleeves of which will not shove up so nicely.

I am glad to see the subject of work dresses ventilated. We have been pinched long enough. It is time that we should cry with the rising school boy, "Give me liberty or give me death!" Put the miserable, health-destroying corsets in the rag bag. If you must have something by the name of "corset," get the corset skirt supporters, but by all means have the skirts supported from the shoulders.

Wrappers cut as described above look very nicely without a belt. Of course it is better to have a real housework dress—short, not coming lower than the tops of one's boots. Then it is not such a hard journey to go up stairs, and one has a chance to sweep the floor with a corn broom instead of a print one, but one can hardly feel "dressed up" for callers in a short dress. However, may our motto be: "Let us be comfortable and healthy if possible."

Growing Old.

An American woman, writing from Paris, said that the great point of superiority of the French over the Americans lay in the fact that the French know how to grow old without becoming incapable. An old woman in France was not necessarily a wall flower, nor was she ignored. She was often a center of attraction, and always an object of respect and attention. We constantly hear old people in America complain of being of no importance, and we all suffer the pain of seeing them pushed aside by those who are younger but not superior. The worst is, the fault lies not with the younger but the older generation. We concede too much to age, and fancy our life is measured by its length. We allow interest after interest to slip out of our minds; we become spectators and are no longer actors ,and then suddenly find the world has left us behind. The younger people have pursuits of which we know nothing. They ask no help, they care for no advice or sympathy. Their life is not ours.

It is not pleasant to live in the world and not be of it, and the old man and woman turn away and say no one cares. And no one does care. That is the pity of it! The world thinks only of what is of use to it; and if the old French woman has kept power and influence while the American woman sits alone and feels that she has outlived the world, the reason is that the French woman is abreast of her time. She does not allow old age to defraud her of her interest in life, nor does she rest in inactivity. She never dreams that there need be any antagonism between youth and age, and if she can no longer join the workers, she watches the work with keen eyes, and the younger ones find help and inspiration in the sympathy of an audience wise through love, interest and experience.

We all know old people who are the most charming companions, but they are not the ones who sit aside and ask the world to run to their liking, not do they expect to receive but never give. They are living lessons that youth is not all of life, and it may be possible to make our lives the richer for being long.—*New Century for Women.*

WHOM WILL SHE GET?—Times are changed. In the days of our grandfathers, young men paid incessant court to "the fair," and their smiles were considered a matter of high competition. But when a young lady of the present day enters into life, the opinion expressed is not whom will she take, but whom will she get? It is now understood to be the business of gentle fair ones to look out for beaux, and by every decent art to make them their own. For this, they are supposed to dress, to acquire accomplishments, and even, save the mark, to go to church. The competition is not now among men for the favor of women, but among women for the favor of the men. When a young lady is about to be married to a young man of good income or prospects, her good fortune in securing such a match is loudly spoken of, and she is evidently understood to be the envy of her sex. She becomes for a time a kind of heroine. Now, all this is, we think, much to be lamented To regard women in such points of view, is degrading both to the object and to the spectator. The natural position of woman with respect to man, as the softener, the cheerer, the refiner of his existence—and her own natural constitution, as weak in frame, but powerful in moral influence—make it appear proper that man should approach her with sentiments of deference and respect. We would even say that worshipful feeling which inspired knights of old was not quite misplaced; for is there not something worthy of a high and devout admiration in a being upon whom the Deity has lavished such grace and witchery, all for the purpose of gratifying, and at the same time elevating man? This feeling, or something approaching to it, is, we should say, the feeling which nature designs civilized men to entertain respecting the gentler sex.—*Philadelphia Post.*

WINANS' NOVEL ORGAN.—Mr. Winans, the Baltimore millionaire, who accumulated an immense fortune in constructing railroads for the Russian government, is building a novel opera-air organ at his country seat near Baltimore. Mr. Winans himself is an enthusiastic lover of the musical art. The instrument is a large church organ, which is to be located in an octagon shaped building a short distance from Mr. Winans' residence. The organ building and the residence are connected with a Morse telegraph. The organ building has three large windows with movable blinds, which can be adjusted by the performer so as to increase and diminish the power of the tones. The pipes are made to speak by the aid of steam power at a pressure three times the ordinary force of the wind. Pneumatic levers and electric connections are used to make the touch light. This is one of the last of Mr. Winans' numerous eccentricities.

Apologies.

We are willing to admit that apologies are not always superfluous. If a man in a crowded room, sitting close to another, should get his hand into another's pocket, we think it proper that he should explain and apologize. If one lays his hand familiarly and with emphasis on a friend's back, who, on looking up, proves to be an entire stranger, it would seem proper to apologize. But you will ask me, why do I write on the matter at all? Because I wish to offer some advice relative to apologies. Here it is: 1. Never do anything that requires an apology, if it be possible. Act according to your best judgment under the influence of your best feelings, and you will have little occasion to explain. 2. If some one comes to your house and finds it in confusion on a day when you are packing up for the country, or when illness has put things out of train, or when the kitchen has had an eruption and the lava has poured forth, or when it was washing day, what need is there of apology? Housekeeping in your house is your business, not theirs. If a friend comes in suddenly to dine and your dinner is frugal, don't apologize. If it is good enough for your own family it is good enough for him. 3. Do not apologize for dress. You have a right to consult your own taste, your purse, and the pursuit which occupies you as to the mode of dressing. If people come to you they should be content to take you as they find you. If people are richly dressed and you are plainly clad, do not reproach their fine clothes by apologizing for your poor ones. Self respect should keep every one from explanations which other people have no business to demand and no right to expect. Of course if you are in circumstances that seem to imply disrespect to another, an apology may be wise and kind. But the general rule is, "make few apologies." 4. One class of apologies are mere traps set for compliments. They are the tricks of a hungry vanity, and are especially disagreeable. It is painful to see an accomplished housewife apologizing for a table that would make an epicure's mouth water.—*Saturday Post.*

The Twinkling of the Stars.

The scintillation of stars, and its close connection with changes of weather, has, as is known, much interested Humboldt, Arago, Kaemtz, Secchi and many others; and recently it has also been the subject of valuable spectroscopic researches by M. Respighi. M. Montigny, who some time ago investigated scintillation in relation to the special characteristics of the light of different stars, publishes in the bulletin of the Belgian Academy, No. 8, an elaborate report upon his researches into the connection existing between scintillation and various meteorological elements. The chief results, arrived at after a discussion of 1,820 observations, made on 230 days on 70 different stars, are as follows: The intensity of scintillation (measured by a special apparatus, the *scintillometre*) increases invariably with the occurrence or approach of rainy weather, and with the increase of tension of vapor in the air on one side, and the increase of pressure and decrease of temperature on the other, the influence of the two former factors being far more sensible than the combined influence of the two latter. The scintillation, which is on an average stronger during winter than during summer, increases with the arrival of moist weather at all seasons. It increases not only on rainy days, but one or two days before, decreasing immediately after the rain has ceased. Moreover, the intensity of scintillation increases during strong winds, and with the approach of barometrical depressions or *bourrasques*, the increase being most pronounced when the depression passes near to the observer. It then largely exceeds the average increase corresponding to rainy days; and the influence of great movements in the atmosphere totally counteracts the contrary influence of a lowering of pressure. M. Montigny is thus correct in saying that a continued investigation of scintillation would be of great service, not only for the prevision of weather, but also for the general study of meteorology, affording a very useful means for the exploration of the higher regions of the atmosphere.—*Nature.*

Making Mosaics.—The Sevres mosaic works are about to be opened to the public. The art of mosaic is young in France. At Rome, where it has long been used in the reproduction of the works of old masters, no less than 10,000 different shades of enamel are kept. At the workshops in Sevres, which are not so developed as those in Rome, there are shelves and drawers fixed parallel to the walls. These draws contain 5,000 or 6,000 tiny cubes of enamel or colored glass, ranged according to tint. The pattern, usually a painting, is placed before the artist, who works in a square of cement, in which he lays his cubes in shades corresponding to the design furnished him. The Roman artist works on the same plan, but instead of whole blocks of cement and enamels a centimeter square, they use microscopically small tubes, with which they have to work hard to fill up a square centimeter a day. The design is copied with a blacklead pencil on a surface prepared with white plaster; this is removed little by little, and its place supplied with cement, in which the fragments of cut enamel are placed one by one. The finer the shading, the smaller the cubes of enamel.



The Original Leap-frog.

Young Folks' Column.

Winter in Europe.

[Written for the "Young Folks' Column" of the Rural Press by "Comus Canopus."]

A winter in Europe, or, rather, in the colder climates of Europe, despite its severity, is much more enjoyable than our milder American, and especially Pacific coast winter. So, at least, think the young people who have had an opportunity to compare the winters of portions of both continents.

As a fair sample of what the average European winter is, and a description of the general way in which our little Europeans enjoy it, we need look only to Russia, where the winter, with its juvenile pastimes, is typical of the same season in almost all portions of Europe.

The knee-deep mud of our own streets is snow there, and the muddy pools of water which accumulate in our own thoroughfares are there frozen to hard, transparent ice. The snow, the depth of which every little boy must measure with his new boots, of course, the same as they must wallow in the mud here, is an excellent covering of the earth for a playground. It is soft, movable, adhesive, and, though wet, is perfectly clean. And how the children do appreciate this! They romp in it till they are wet to the skin, and then enjoy it all the more. They play in it and with it for hours at a time, and forget school, home and everything else but their snow-men and snow-houses or forts, from which they throw their snow-balls at the enemy. As they pass on to school, as two parties of boys from different schools come together, the snow-ball is used in real earnest, and thrown right hard, too. Sometimes, when it is not so very cold, the snow is quite hard, and the collision with anybody's head of a ball made of such snow is frequently followed by painful consequences. But, generally, the rivals are not malicious, and throw none that will injure any one, only such as will give one a good mouthful of snow to cool the hot temper which such a reception causes. The reward of a hotly contested victory is generally nothing but the pleasure of sending a hoot accompanied by a volley of snow-balls after the rapidly retreating forms of the vanquished party.

In Moscow, where the streets are smooth paved, a sort of channel is constructed in the streets, along the edge of the sidewalk, for the rain water to pass off. When it is extremely cold the water in these channels is frozen to ice—hard, smooth and slippery—which then is a splendid slide for the boys and girls. They take a run and spin along for a quarter of a block or more at a time. These channels are much used by the little travelers when they are sent on errands for their mothers. And the possession even of eggs won't conquer the temptation to "slide." This wayside skating is often such a nuisance to the dwellers along the thoroughfare that they pour boiling water into the channel to melt the ice, when the determined skaters promptly throw snow into it again.

Another sport is sledging, but so much has been written of how the boys do it in the Boston Common, that it need only be referred to here. But sledging in Russia seems to be considered as much a girl's game as hoop rolling is here. For a down-hill ride, when the sledge is drawn or steered by kind "big brothers," all the girls who can, pile on or hang on, and the journey begins. The "sled" is often only a large, heavy box, with iron runners, and its weight alone propels it. At the foot of the hill, where the snow generally has accumulated, the "kind big brothers" give the sled an almost artistic twist. It twirls, and then upsets its load helter-skelter into the snow. Then the little girls say they won't ride again, but they are blindfolded by promises that it won't be done again, but, as the bottom of the hill is reached, over they go again!

Then, when they come home at night, wet through, with rosy cheeks, their fire-side games or their school studies are pursued with renewed interest. Thus, these children, who are brought up amid the hardships of ice, snow and cold, grow up to be hardy, well built, stout men and women, and to the particularly cold weather, with the ice and snow enabling the children to enjoy it, Europe owes much for the hardiness and health of her people.

Good Health.

Diphtheria.

This fatal disease is now making sad inroads among the children in many parts of our State. All information concerning the disease is of the greatest importance. We a long essay on the subject in the *Physician and Pharmaceutist*, by Dr. R. Tauszy, from which we quote as follows:

We have herewith, I hope, conclusively proved the correctness of the following propositions:

1st. That diphtheria is dependent upon minute vegetable organisms, which invade the system through an abraded skin or an abraded and inflamed mucous membrane.

2d. That bacteria are easily distinguishable, microscopically, from detritus, fat or albumen, by the glycerine, acetic acid and heating test.

3d. The contagion of diphtheria is not a gaseous substance.

4th It is most assuredly first a local disease, and, after existing a certain time, becomes general.

5th. Catarrh, nasal and pharyngeal, one or both, always precedes it, or may be regarded as its first stage.

6th. That croup and diphtheria are not identical diseases; croup exudations never enter the circulation; croup always remains a local disease, and kills only by mechanical obstruction, of the larynx for instance.

A few words as to treatment. Dr. Jacobi's suggestions in this respect are so good that I will copy most of his remarks bearing upon this point as deserving to be adopted generally. Dr. Jacobi says: "With the local attendance the large majority of cases will recover; without it, they will die." How can we imagine an æriform poison to lodge on a tonsil, or the soft palate? Is this not more apt to enter the lungs, and through it the circulation? Dr. J. further says: "There is no infectious disease that can be more readily and more satisfactorily managed than diphtheria. A case of diphtheria, mild or severe, ought to be attended at once, without loss of time. Many a case of diphtheria I have not attended, because I believe I have prevented it."

Dr. Jacobi suggests: "Isolation, nasal and pharyngeal catarrh must be cured; hypertrophied tonsils must be exsected at a time when no diphtheria prevails. Avoid all bloody operation. Chlorate of potash one-half ounce to a drachm, internally taken during 24 hours. Disinfection is our main reliance, our sheet-anchor." The Doctor's warning is very appropriate, where he says: "In children, especially, the tendency to mouth catarrh, caries of teeth, pharyngeal and nasal catarrh, congenital and acquired enlargement of tonsils, exposure to cold air, inhalations of dust, canterization, are just as many invitations to the diphtheritic poison." Dr. Jacobi speaks highly of perchloride of iron as an astringent and disinfectant. He gives in diphtheria 15 drops every half or every hour. In croup, which very wisely is considered a separate disease by Dr. J., not at all identical with diphtheria, he recommends ice externally, emetics as required, lime inhalation for the purpose of dissolving the membranes. In fever, washing, bathing, ether, wine, brandy, camphor, musk, ammonia. In nasal diphtheria inject the nostrils with two to four grains of carbolic acid to the ounce of water every hour.

Salicylic acid is now used in preference; from two to four grains every hour, or every two hours, according to the severity of the symptoms, should be given to a child between five and ten years old; smaller and larger children according to their respective ages. It is best to give salicylic acid in powder. It thus comes in closer contact with the bacteria, which it kills, than when given in a liquid form. The permanganate of potash, grain x to the ounce of water, of which a teaspoonful is mixed with a usual tumbler of water, may be used as a mouth-wash even during health as a prophylactic.

Sea Weed for Obesity.—A writer in the Paris *Medical* recommends the administration of sea water in the treatment of obesity, the dose prescribed being a small glassful three times a day, in a little fresh water or milk. Considerable attention has also been recently given to the gulf weed, *Sargassum bacciferum*, which has been recommended by physicians for the same purpose. The fluid extract manufacturers, always on the lookout for "novelties," have recently introduced a fluid extract of sea weed, under the name of *Fucus vesiculosus*. It is asserted, however, by some physicians who have used this extract, that it is worthless, and that an infusion, or "tea," made from the weed, should be used. The peculiar virtues ascribed to sea weed are doubtless due to the presence of iodine, though it would seem that the quantity present would be too small to produce any marked effect.

Antidote for Mushroom Poisoning.—Prof. Schiff has recently demonstrated that muscavina, the poisoning principle of mushrooms, may be promptly and efficaciously counteracted by the administration of atropine or daturine, but particularly by the latter.

Domestic Economy.

Canning Fruit.

Ella Haller had a splendid exhibit of canned fruit at the Centennial. There were about 20 tons of it and it attracted much attention. She issued a circular giving hints for canning, and we make a few extracts therefrom, which are worth repeating even if known to many of our readers:

Fill the jar with carefully prepared, choice, fresh fruit, pack well, using as much care and taste as possible. Then fill the jar with cold syrup (or sugar and water sweetened to suit the taste); then place the jar in a kettle, with a perforated board in the bottom for the jar to rest upon, to prevent breakage; fill the kettle with cold water up to within two inches of the top of the jar; place over the fire and allow the water to boil until the fruit and syrup within the jar are thoroughly heated and boiling hot, or enough to exclude the air. Then fill the hollow stopper or reservoir with hot syrup (or hot water, which will do quite as well, and can be kept conveniently at hand, boiling in a tea-kettle). When the stopper is filled, it is then pressed into the jar, and turned until the inclines pass firmly beneath the corresponding cams. At the time of closing, the jar and reservoir must be perfectly full of syrup, to entirely exclude the air; then set away to allow it to cool. Avoid setting a hot jar in a draft of air; it is best not to allow them to cool too fast.

Another Recipe.

Those who have not the time to spare to pack and prepare the fruit with so much care, can put up fruit to look very well, and be palatable and good, by paring the fruit, placing it in a porcelain-lined kettle (avoid using tin, as the lead in most tin is injurious to life and health); cover with cold syrup (or sugar and water sweetened to suit the taste), place over a fire, allowing it to boil enough to heat it perfectly hot all through; fill the jars, one at a time, up to the neck; then fill the stopper with boiling hot water or syrup, place in the jar and fasten as described. Fill one jar at a time, keeping the kettle over the fire, for it must be remembered that the hotter the fruit and syrup is when the jar is closed, the more perfect the vacuum. If the contents become too cool before closing, a vacuum cannot be made, and the fruit cannot keep. I am careful to make my directions emphatic, yet the most inexperienced person can, with a little practice and careful attention, put up fruit with perfection.

Always select fresh fruits, that are firm and in good condition; stale fruits are apt to become sour and cause fermentation, and no jar could keep them. Persons make a mistake when they attempt to put up inferior fruit.

Recipe for Curing Meat.—To one gallon of water, take one and one-half pounds of salt, one-half pound of sugar, one-half ounce of saltpeter, one-half ounce potash. In this ratio the pickle can be increased to any quantity desired. Let these be boiled together until all the dirt from the sugar rises to the top and is skimmed off. Then throw it into a tub to cool, and when cold, pour it over your beef or pork. The meat must be well-covered with pickle, and should not be put down for at least two days after killing, during which time it should be slightly sprinkled with powdered saltpeter, which removes all the surface blood, etc., leaving the meat fresh and clean. Some omit boiling the pickle, and find it to answer well, though the operation of boiling purifies the pickle by throwing off the dirt always to be found in salt and sugar. If this recipe is strictly followed, it will require only a single trial to prove its superiority over the common way or most ways of putting down meat, and will not soon be abandoned for any other. The meat is unsurpassed for sweetness, delicacy, and freshness of color.—*Ex.*

Making Sauer-Kraut.—The Germantown *Telegraph* gives the following directions for making sauer-kraut: In the first place let your "stand," holding from half a barrel to a barrel, be thoroughly scalded out; the cutter, the tub, and the stamper also well scalded. Take off all the outer leaves of the cabbages, halve them, and remove the heart and proceed with the cutting. Lay some clean leaves at the bottom of the stand, sprinkle with a handful of salt, fill in a half bushel of cut cabbage, stamp gently until the juice just makes its appearance, then add another handful of salt, and so on until the stand is full. Cover over with cabbage leaves, place on top a clean board fitting the space pretty well, and on the top of that a stone weighing 12 or 15 pounds. Stand away in a cool place. It will be ready for use in from four to six weeks. The cabbage should be cut tolerably coarse. The Savoy variety makes the best article, but it is only half as productive as the Drumhead and Flat Dutch.

Cranberry Pie.—Stew a few good, ripe, apples, and add an equal quantity of cranberries. Cover a deep plate with a crust, and fill even full; roll the upper crust, and cut in strips half an inch wide and lay across the pie, leaving the spaces diamond shaped, and bake.

Eggs Without Boiling.—Drop eggs into a sauce-pan of boiling water, which remove immediately from the fire. Let them remain in the hot water five minutes.

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SAN FRANCISCO

Saturday, December 2, 1876.

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The Week.

Another week speaks no certain voice concerning the result of the election. The official counting is still in progress in Louisiana and Florida, and with them rests the people's choice. It is expected that the result will be announced within a week hence. At all events the law requires the assembling of the presidential electors at the capitals of the several States on December 6th, and then the character of the vote must be shown. As the contest is close the legal standing of many of the electors has been made a matter of question, and there is still room for prolonged controversy. Congress, as the final canvasser of the electors' votes, may yet have a controlling voice in the choice.

The point of greatest interest in the week is the sharp advance in the price of wheat. Sales have reached the extreme of $2.12½ per cental, and a higher mark is rumored. Although the expectations of the Eastern war has doubtless had an effect upon prices, it is believed that this last advance is rather the result of conclusions concerning the legitimate demand of Great Britian, through the shortage in her own crop, which was shown a short time ago in the PRESS, and the cutting off of some avenues of supply. The outlook is very promising. It bids fair to clean our store-houses to the last grain and bring the crop of 1877 on a bare market. Thus prosperity is promised our farmers.

The RURAL PRESS greets its readers one day earlier than usual this week, to give its workers the benefit of Thanksgiving.

Farm Work.

Farm work is in progress all over the State. Advices from the interior counties are to the effect that the width of land under the plow will be much increased by this year's industry. The early opening of the season has invited large undertakings, and the prospect for the harvest of 1877, in the matter of price, has stimulated grain producers to utilize all their resources. There seems to be a widespread belief, in this State, that the European complications will not yield readily to the efforts of the pacificators, but that the breaking up of the winter will see a breaking out of a wider conflict than has yet marked the discussion of the Eastern question. The result of this feeling here is toward the enlargement of views among our wheat producers, and it is well, for while men will waste their time and substance in wars, there must be a greater activity among the peaceful to bear the burden of the world's food supply.

While our fields are resounding with the cries of the plowmen and the plows are marking their continuous parallels, it may be timely to express a few thoughts about farm work. Farm work is looked upon in two ways. To some it seems the hardest drudgery known to men; others land it as noble and when they use their best adjectives they call it divine. Both of these views of farm work are right according to the mind of him who perceives them. Farm work *is* drudgery, if a man's mind is on a level with his work; it is as near divine as work can be, if his mind grasps and enjoys the action of the higher laws which are involved in it and through which its success is attained. And as we use the term, higher law, in this connection we do not mean to enter any realm above the material facts which are involved in work and its results. The facts of work are not merely the turn of the plows, the scatter of the seed, the building of the ditch and levee, the planting of the tree, the milking of the cow or the drawing out food to farm animals. All these items of work, which, with others, are now engaging the attention of our agricultural laborers, are hard and tiring, and, if looked upon merely for the physical exertion required, may be set down as drudgery. But let him that plows think, on plowing, of the effect upon the soil, of the effect upon the growth of the plant, of the mechanism he is employing to do the work; let him think of the hundred things which suggest themselves to his mind when he asks himself the "why" and the "how" in his plowing, and he find that it will require all his thought and observation to fully understand the work in which he is engaged. And when we advocate earnest thoughts about the work in which a man is occupied, we do not mean any idle dreaming which unfits a man for successful labor. There has been enough of that in agriculture, as in all other pursuits. It is vigorous, pertinent thought which is valuable. We have known men who have leaned on their hoes in the Eastern cornfields, with their minds filled with some vain speculation, until the weeds have almost grown up around them, just as we have known lawyers who have let their cases lie unstudied while they have filled their minds with trashy novels and worthless sophisms. This kind of thinking makes a failure of a farmer and of a man in any other pursuit in life. But there are thoughts which are so intimately connected with work that they improve the man who pursues them both in his capacity as a worker and in his manhood. How often we have heard a laborer praised by his employer because "he seems to have his mind upon his work," "he seems to know how to advance my interests." These qualities in the laborer are so valuable that the employer is willing to pay for them, and he who labors thus for a wise employer will find that his services will increase in value according to the degree in which his labor pushes the enterprise toward prosperity.

It is common to look upon farm work as drudgery beyond labor in many other callings of men. If this is true we believe it is because it is done with less of the light and charm of thought and interest. According to the degree with which a man brings his mind to labor with his hands in the task before him, to that degree he elevates his labor and to that degree it bears him up during the exertion. If this element of elevation has been omitted from farm work it is not because the work did not admit of it, for there is no industrial enterprise which gives wider scope for the exercise of the spirit of investigation and which calls for sounder judgment of cause and effect than the farm. As this fact comes to be more generally recognized the popular estimate of the agricultural laborer will be improved. Agriculture has hard work for its votaries, but it is enlivening and healthgiving if one prosecutes it wisely. The industry is one which rewards intelligent effort and labor-saving genius. As these elements are more fully introduced into farm work, the work will rise so far above the oldtime thoughtless plodding.

Nowhere better than in California will agriculture reward the application of brains to production, and nowhere else, we believe, has the application been so promptly bestowed. With a climate which makes outdoor life a blessing, with a varied soil the capacities of which are not half determined, with products which surprise the world with their variety and abundance, with everything awaiting investigation and research—California, of all the world, is the place for earnest, thoughtful labor.

The Tulare Insect.

Two weeks ago we quoted from the Visalia *Delta* an account of insects being found in horses' ears which caused the animal to manifest some of the symptoms of "loco poisoning." We asked for specimens of the insect. This week we receive by mail a box of insects which we believe are the pesta referred to, although no letter accompanies the sample and we cannot credit the sender for his favor.

The insect is a true "tick" (genus *Ixodes*,) about one-quarter of an inch in length and three-sixteenths of an inch in width, of a whitish color and with brown head and legs. These measurements are of the insect in working condition. The box contains these and other dormant insects as large as good sized beans. These swelled up dormant fellows are the "ticks" after gorging themselves with the blood of the animal. When thus it has becoming surfeited, it is the belief of entomologists that the life of the insect is run out and that he dies in his last great feast. Before killing himself with blood the "tick" has generally deposited eggs in the wound he makes and from these spring the new growth of hungry parasites.

We showed the insects to Mr. Henry Edwards, the well known entomologist, and he states that there are no new points about them. They are of the same genus as the sheep, pig and wood-ticks, but perhaps of a different species, as each animal seems to have a species of its own. Concerning the fact of the "ticks" being found in the ear, he looks upon that as merely a place taken because there the animal is powerless to dislodge them. He has seen rabbits hanging in the market with their ears alive with "ticks." He thinks sweet oil would be very effective as a treatment for them when in the ear, because it is certain to make them loose their hold. It is dangerous to brush them off, as any one who has had experience with wood-ticks knows that when pulled off carelessly they are liable to leave their heads in the wound and there is formed a painful festering sore.

These facts are very valuable to know and remember. It is quite likely that with an ear filled with these hungry and pain-giving insects, the horse should show signs of being crazed, and should any of readers have horses affected in the head, by all means make examination for the "ticks." But the conclusion that these insects are the cause of "loco poisoning" is not warranted The facts of nervous maladies produced by eating the fatal loco weeds are well authenticated, and though "loco" is not produced by an insect, it is quite probable that the attacks of the insect have been given the name.

A Lesson in Limes.

The incoming of this year's crop of limes teaches a lesson. As has been noted in our market report, the price has been cut in quarters by the great quantities of very small fruit which has been received with nearly all lots. The *Call*, in noting this feature of the trade, makes the following points:

The crop of California limes is rapidly increasing from year to year, the arrivals this season being much greater than ever before. The market is overstocked and prices have fallen to $3 and $5 per 1,000. The Mexican variety seems to be universally preferred, and now sells at $10 per 1,000. This great difference in price is due in part to the average smaller size of the domestic fruit, the large and small being shipped together from Los Angeles, while from the Mexican consignments all the small ones are rejected and none but those of fair size are forwarded. Another objection to the California fruit is its dirty appearance, caused by a black deposit with which many of the trees are covered, and which is very noticeable on the Los Angeles oranges. The Mexican limes, on the other hand, are always clean, and this, with their larger size, gives them the preference with buyers. As shipments from the southern part of the State increase, prices must continue to decline, unless something is done to remove the objections noted. In the first place, the trees must be freed from the black deposit which disfigures the fruit; and more care must be taken in packing it for market. The small limes must be rejected, even if they have to be wasted, as the large ones alone will bring more money than the whole when all are boxed together. There is a market in this city for several thousand gallons of lime juice annually, at 30 to 40 cents per gallon, which is now supplied from Tahiti. The juice of the small and imperfect limes can be easily pressed out, and in that way none will be wasted. The Tahiti juice, as it arrives in barrels and hogsheads, contains so much pulp and filth that it requires a good deal of cleaning before being bottled for sale, during which process about one-third of it is lost. We are satisfied that Los Angeles juice, from the better condition in which it would be sent to market, would be cheaper at 50 cents than the Tahiti at 30 cents per gallon.

ON FILE.—"Is Early Planting of Blue Gums Desirable?" W. A. T. S.; "Visit to Pescadero Grange," B. P.

QUERIES AND REPLIES.

Grape Sugar and "California Coffee."

EDITORS PRESS:—Your remarks on grape syrup in the last issue of the PRESS lead me to remark that I have now under investigation a sample of the article, with reference to improvements in its manufacture, including, of course, the points you allude to. It has thus far shown no disposition to granulation to any considerable extent, and from what has been said I think I see one reason why samples may differ greatly in this respect; but the investigation of the subject requires the possession of more samples than one, for it is evident that small differences in the mode of operating can produce very great differences in the result. I shall be glad to receive samples accompanied by accurate statements of the manner in which they were made—to what extent lime was used, how the evaporation was conducted, how much was produced per ton of grapes, etc. A full discussion of the subject now will enable producers to get ready to correct and improve upon this season's practice by the time another vintage comes around.

I have been asked in regard to the possibility of making "sugar," *i. e.*, cane sugar, out of the grape juice. This, of course, is impossible, for, although the juice does usually contain a small amount of cane sugar, the grape sugar proper, or glucose, as well as the syrupy kind, predominate so overwhelmingly that these alone can practically be obtained from grapes. I am surprised to find that "sugar," *i. e.* cane sugar, has by some been added to the syrup. The sample in my possession certainly does not require to be further sweetened; nor can the cane sugar prevent the ultimate deposition of grape sugar if the latter has been allowed to accumulate too much in the concentrated juice.

I shall soon report to you the results of my examination of the "California coffee," that has been unexpectedly prolonged by the very uncoffee-like behavior of the vegetable.—E. W. HILGARD, University of California, Nov. 18th, 1876.

We are glad Prof. Hilgard has this grape syrup problem in hand, and we hope all manufacturers of grape syrup will act on his suggestion, and send him samples, accompanied with descriptions of methods of manufacture. The last two samples which we have on hand are now granulating slowly; about one-sixteenth of the bulk being now "sugared off." They are much superior in this respect to the first specimens we received, for *they* became literally solid in about the same length of time. Let us have the matter fully investigated.

We are sorry we gave the Professor such a severe dose of the "California coffee." We trust he will recover and give us the result of his examination at his convenience.

Beets and Carrots.

EDITORS PRESS:—We would be glad to have you give us through the RURAL the best time of the year to plant beet and carrots for feeding cattle. As we are new comers from the East, and we find various opinions about the times of planting here, we would like to learn from you.—L. L. HARRIS, Santa Rosa, Cal.

This matter is considerably influenced by conditions of soil and moisture, and therefore arises the reason for a difference of opinion. In a light, workable and well drained soil the seed may be planted at once and the result will be, generally, that a better stand or set will be obtained than in spring planting. In a heavy soil which is retentive of water, and consequently cold, this practice will not do, because the seed would rot before sprouting. In heavy soils, therefore, planting must not be done until the weight of the season's rains have fallen and the ground throws off the excess of water and warms up. This sometimes occurs in January and February; sometimes not till March or later, as this last season for instance. Everything depends upon the condition of the soil and the character of the locality as to how early the seed may be safely entrusted to the ground. Although the beet likes a long growing season and does well with plenty of moisture, it is not essential to good crops that they should be early sown. Mr. Ashburner, of San Mateo county, who has given our readers full and valuable essays on this subject, has had admirable results from sowings as late as May 1st to May 27th, but he holds the moisture in his land by deep and thorough tillage. The secret of success in each case is to study the condition of the soil and put in the crop when it is in its best condition. And to do this it is advisable to select the seed early and have it on hand, so as not to be obliged to send in to the seedsman when he is overrun with orders. In this way the planter can assure himself that he has good seed and be ready when the time comes.

Killing Willows.

EDITORS PRESS:—Please tell me how to kill willows. They are troubling my land considerably.—C., Modesto, Cal.

We know of nothing better than "grubbing and burning." Where the willows are thick and the ground well filled with the roots it is common to cut the bushes, grub off the earth to the roots and then burn the bush over the roots. This gets up an intense heat on the roots, and if does not consume them heats the sap to such a high degree that subsequent growth is avoided. Sometimes the roots are so thickly matted that after grubbing off the earth they may be burned by getting a fire well started at one side of the patch. The ashes from the burning will generally improve the soil.

ADDITIONAL AWARDS AT THE CENTENNIAL.—Wilkins of Eugene City, Oregon, combing wool; S. G. Reed of Portland, long combing wool; Hampton Kelly of Portland, fruit; Butler of Oregon, collection of fruit; H. Lambert of Portland, apples; Seth Snelling of Milwaukee, Oregon, pears; J. E. Ledlock of Portland, collection of prunes.

THE "deadhead" admissions to the Centennial aggregated 1,906,592.

Asbestos and its Industrial Uses.

Asbestos is a mineral fiber composed of silicate of magnesia, silicate of lime, protoxide of iron and manganese. Mineralogically the name is given to the fibrous varieties of tremolite, actinolite and other varieties of hornblende, excepting such as contain alumina, and also to the corresponding mineral pyroxene. It exists in vast quantities in the United States, in various parts of Great Britain, Hungary, Italy, Corsica, and the Tyrol. To various kinds of asbestos have been applied the names "mountain leather," "mountain cork," "amianthus," and "chrysotile," and certain other minerals having characteristics resembling those of asbestos are described as asbestoid, asbestiform, and as lamellar-fibrous. Without entering into any description of these species (for we have to deal only with ashestos proper in considering its indnstrial applications), we may at once note the chief characteristics upon which the value of the mineral depends. And these are, first, its indestructibility by fire and its insolubility (except for a few varieties) in acids; secondly, its peculiar fibrous quality.

The material is obtained from the mines in forms ranging from hundles of soft silky fibers to hard blocks. The blocks may be broken up and separated into fihers, which, like those naturally obtained in that state, are extremely flexible, admit of great extension in the direction of their length without cracking, are greasy to the touch and very strong. The fiber obtained in New York and Vermont varies in length from two to 40 inches, and resembles unbleached flax when found near the surface, but when taken at a greater depth it is pure white. Upon the length, flexibility, and strength of the fiber the value of the asbestos depends. The engraving, Fig. 5, is drawn from an exceptionally fine piece, and exhibits the fibroua atructure very perfectly. The fragment is 43½ inches long, 7½ inches thick, and 21 inches wide, and weighs 114 pounds.

It is a curious circnmstance that although the valuable qualities of asbestos have been known since time immemorial, it is only during very recent years that the mineral has been extensively used. Its employment among the ancients was confined to the manufacture of an incombustible cloth in which the bodies of the dead were cremated, and of napkins which were cleansed hy throwing them in the fire. We find record of its employment as lampwick and for fireproof gloves and clothes for metal workers and firemen. Not very long ago we learned of its entering into a peculiar quality of wall paper made in Rome, Italy. With these few exceptions—and in no case has any of them risen to the level of even a minor industry—asbestos has occupied the position of a mineralogical curiosity, a product reasonably certain some day to find its place in human economy, but neverthelesa one which inventors seemed systematically to overlook.

The *Scientific American*, from which these facts are taken, says it is to Mr. H. W. Johns, of New York city, that the credit of first using asbestos for industrial pnrposes on a large scale is due. Some years ago that gentleman invented a cement in which one of the ingredients was asbestos. Asbestos, however, despite its abundance, was then exceedingly difficult to obtain. It could be purchased only in small quantity at a high price, and certainly offered no very promising prospects of an adequate supply should a large demand for the cement he realized. Nothing daunted by this scarcity, the inventor advertised his cement widely, and the result of his advertisements was not merely an angmented sale of his invention, but an avalanche of lettera from all quarters of the globe, in which the writers mentioned deposits of asbestos in their vicinity and offered supplies. Thus, ere very long, Mr. Johns became posessed ot abundant facilities for obtaining auy quantity of the mineral, and was free to proceed with the experimenting which led to the other and more important utilizations which we are about to describe.

In a little volume which has been compiled from patent office records, we find over 300 patents for roofing compositions, and probahly this number is much below the total of this class of inventions. In all these compounds, there is a general sameness, dne perhaps to the presence of gas tar and various conglomerations of gravel, resin, paper, felt, cement, and chemicals in the large majority. From all these, the asbestos roofing differs: not merely through its containing asbestos, but through its composition independent of that material. From Fig. 3, which is a section of the ashestos roofing, its construction will be understood. *F* is a layer of asbestos-coated felt; *A A* are layers of acid and waterproof composition into which asbestos enters. *C* is a canvas, and *M* a manila lining. These materials are compressed to a sheet resembling leather, abont one-tenth inch in thickness, and prodnced in continuous rolls about 40 inches wide, each roll containing 200 square feet. The weight is 50 pounds per 100 sqnare feet, or about one-tenth that of gravel roofing. The manner of applying the rolls to the roof is shown in Fig. 1, the operation consisting in merely tacking the fabric to the boards. This is done with equal facility on either flat or steep roofs. The last process is to go over the laid roofiug with a prepared coating of snitable color. This is made of ashestos in a flocculent state, mingled with silica paint body and other ingredients. It is applied with a brush, and forms an elastic waterproof felting. For large and important city edifices, an asbestos concrete may be applied by means of a trowel and in lieu of the above coating. The advantages claimed for the roofing are that it forms a water and air tight smooth surface, which is a good non-conductor of heat, and is practically a resistant of fire; also that it is adapted to all climates, and is unexcelled in durability and cheapness by tin, slate, or shingles, of the qualities ordinarily used.

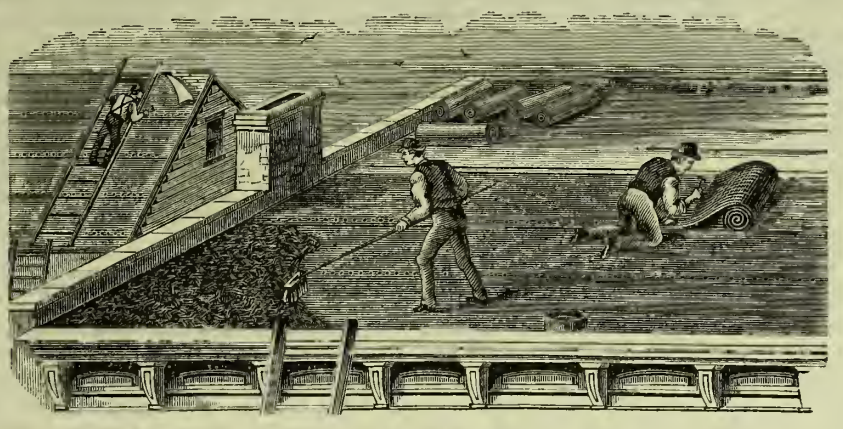


Fig. 1. LAYING DOWN ASBESTOS ROOFING.

The second application of asbeatos to which attention may be directed is as a covering for steam boilers and pipes. For this purpose it is prepared in various ways. A cement felting, composed of asbestos and a cementing compound, may be used like mortar and applied directly to the pipes, forming an excellent fireproof non conductor of heat. It is improved, however, as a covering by the addition of an asbestos lining felt, which is a strong sheathing, to one side of which is attached a layer of flocked asbestos. This is applied, say in two turns, directly arcund the pipe, and the cement laid on ontside. Each layer of ashestos thus forms a sort of air chamber, which adds greatly to the insnlating capabilities of the cover. At the same time the felt admits of the expansion of the pipe and also serves to protect hair felts, when the same are placed over it, from charring and other injurious effects of heat. An asbestos lined hair felt is likewise manufactured, which is especially suitable for covering marine and locomotive boilers. The mode of applying the insulating material will readily be understood from Fig. 2, which shows both a boiler and a portion of a steam pipe, covered, *F* being the felting. We are informed that the materials are very easily and cheaply applied, that the pipes so covered are smaller and neater than is nsnally the case, and that there is no danger of the envelope cracking through the expansion of the pipes. These felt-

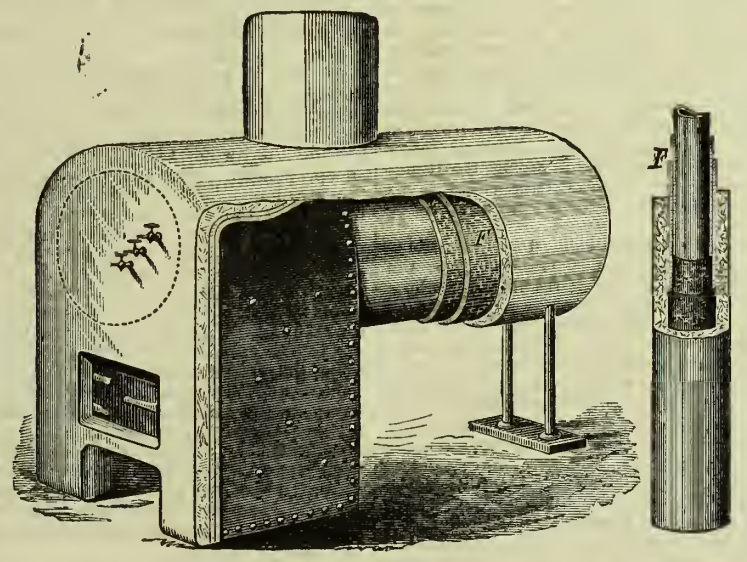


Fig. 2. ASBESTOS-COVERED BOILER AND PIPE.

ings were snbjected to severe tests at the New York navy yard in 1874, which they successfully withstood, showing the highest degree of efficiency as non-conductors of heat.

Asbestos steam packing offers in itself utilizations as important in some respects as any other here mentioned. Ordinary packing in engines is obliged to contend with an elevated temperature, moisture and friction, all agents tending towards its destruction. From the testimony of those who have used ashestos prepared as helow described, it appears wholly indifferent at all times to temperature and moistnre, while its self-lubricating qualities protect it greatly against wear due to friction. The mode in which the packing is made is shown in Fig. 4. The long flexihle fibers of the asbestos are secnrely covered by a thin braid, forming ropes from three-eighths to two inches in diameter, which are put up in coils of 50 pounds each. It is especially snited for use in casea where the effect of high pressure steam is to be met. We are informed that it has been employed without removal on an ocean ateamer which sailed over 90,000 miles, and in another case on a locomotive which ran over 50,000 miles, in hoth instances showing but slight effects of wear, and necessitating no stoppages.

As a paint body, some varieties of asbestos, throngh its capability of being redneed into almost impalpahle powder, has been found excellently adapted. It is exceedingly tenacious, and so renders the pigments not liable to chalk, crack, or scale, while it possesses superior coveriug qualities. Less coloring matter is required in the manufacture of these paints than in any other, and they are prepared and sold hy Mr. Johns ready for immediate application by the hrush. The ingredients are simply the best linseed oil and colors, with the asbestos body; and the paints are not offered as strictly fireproof, although it is helieved that they will resist fire after drying much better than ordinary paint. They are made in all shades, and are especially well suited for outside work, such as railroad cars and bridges, walls, fences, etc.

Lack of space prevents our describing, in detail similar to the above, the many other productions into which ashestos enters. Of the more important of these we may mention asbestos cements (fire, acid, and water proof) for linings and fillings for iron columns, floors, and for slate and other roofs, for cementing steam and other joints, fire clay retorts, etc. A fireproof coating is also made for wooden structures and shingle roofs and for surfaces not exposed to the weather, which are liable to ignition. This is applied with a brush, and may he subsequently coated with ashestos paint. Asbestos board is made from pnre ashestos in flexible sheets of various sizes and thicknesses, forming a valuable covering for locomotive boilers, and for flat packing, gaskets, etc., and as a protection for all surfaces exposed to fire. Asbestos paper is used for lining cloth, fire-screens, etc., aud for filtering acids. Asbestos thread may be woven into fabrics, and an asbestos lubricator is mannfactnred, designed for heavy machinery, wagon axles, etc.

All these varied applications are the result of continued experimenting and investigation on the part of the inventor, a labor which has lasted since 1867, and which is still in progress. That they are of a high degree of value and utility may perhaps best be jndged by the rapid increase which has been felt in the demaud for asbestos prodncts, and by the excellent results which actual employment has demonstrated them capable of yielding. Any further information will be cheerfnlly given by Thompson & Upson, exclusive wholesale dealers for the Pacific coast for H. W. Johns' patent ashestos material, No. 5 First street, San Francisco.



Fig. 3. ASBESTOS ROOFING—SECTION.



Fig. 4. ASBESTOS PACKING.



Fig. 5. A FINE PIECE OF ASBESTOS.

Oregon's Progress in Flax.

We have formerly noted the facts of Oregon's progress in enterprises to grow flax for fiber. The *Willamette Farmer* shows that the movement is realizing desirable results. It says: Messrs. Jesse Parrish and Chas. Miller, two well-to-do and energetic farmers living near Jefferson, have raised two large crops of remarkahle excellence, which was established by the award of a medal at the Centennial, to their prodnct.

We are glad to learn that they have disposed of their liut—for they have manufactnred it themselves—at a very satisfactory price, $300 a ton, which is 15 cents per ponnd, to Mr. Crane, who has located at San Francisco, to engage in the manufacture of twine, thread, etc. They have to refuse an offer for 10 tons to be shipped to Dundee, Scotland, for the reason that their stock is all pre-engaged. Their flax mill is now turning out 300 pounds of lint every day, and they feel every enccouragement to continue the business on a large scale. Mr. Crane, of San Francisco, pronounces their lint a first rate article.

Fifty pounds of their flax was shipped to Dnndee, Scotland, through the agency of Mr. William Reid, Portland, where it was mannfactnred into linen and pronounced by the manufacturers as good as any in the world. The same company that worked up this sample and made this report, wrote to Mr. Reid that they would send machinery here to manufacture linen, provided they could be supplied with sufficient lint to run the first year. All these facts combine to show that flax fiber can be made a leading industry in Oregon and lead to the establishment of important manufacturing interests in this State.

Mr. Miller also informs us that a company is organizing in New York State for the purpose of sending an agent to Oregon to secure the raising of flax fiher to be seut back East and snpply factories there. Those who are engaged in mannfacturing flax there think there is no such flax raised anywhere as they have received from Oregon. We have then what seems certain to prove a permanent paying product that our farmers can depend upon for a change of crops, and which can be mannfactured into lint here, and will eventually lead to the establisament of linen manufactories in Oregon. The permanence of this production and manufacture can be judged from the history of flax culture and linen manufacture for 100 years past in the north of Ireland, where great cities and immense manufactories have grown up, permanently sustained by the successful cultivation of flax in the surrounding conntry, which cultivation and maunfacture have been a source and means of lasting wealth and prosperity. We possess at least eqnal facili ies for growth and mannfacture and can therefore count on equally successful results.

Honey Plants.—J. D. Enos, of Napa, made us a call during the week. He brought a little hunch of blossoms which he finda his bees relish. Desiring the names, Mr. Harford, of the Academy of Sciences, informs ns that the shrub with a bright red herry is the lanrel hawthorn (*Heteromeles arbutifolia*); the white flower is the blossom of the manzanita (*Arctostaphylos pungens*); the yellow flower is the monkey flower (*Mimulus glutinosus*).

Mr. Enos is making fine progress with his beekeeping, and achieving very satisfactory resnlts. He has a fine warm location on high gronnd, above the frosts and in the midst of a fine bee pasturage.

HORTICULTURE.

Fruit Growers' Mistakes.

M. P. Owen, in an article in the Santa Cruz *Sentinel*, tells "some of the reasons why fruit growers are not all rich." Here are some of them:

First, the principal fruit cultivated in Santa Cruz county is apples, and a large majority of them are of such varieties as are worthless as a market apple; and the consequence is, that a large proportion is absolutely wasted, (not necessarily so; they are worth 50 cents per box for vinegar) while another large portion sells at a small profit. Second, add to this the unskilled and slipshod manner of cultivation that we see all around us, and you need not wonder that they are not rich. I will describe some of the features of this cultivation. You go into the orchard, and you will find it full of clods, caused by

Putting off the Plowing so Late

That the ground had become so dry and hard that it plowed up in great dry clods, and the fruit is stunted, and not saleable in consequence; then add to this the neglect in pruning, and it is a wonder that they raise anything fit for the market at all, and if it were anywhere else in the world, I don't think they would, but our climate and soil being especially adapted to the growth of fruit, they succeed in raising some, but to make fruit growing pay you must cultivate and prune your trees, and in order to have the ground in good condition, you should plow it as soon in the spring as it is dry enough, and then follow up with harrow and drag or roller, so that the surface is well pulverized and smooth. This has two advantages; it puts the ground in the best possible condition for retaining the moisture so necessary to the growth of the tree and fruit; and adds to the convenience and comfort of getting the fruit, and saves much of it from being wasted by falling on hard clods, which would otherwise. Notwithstanding the fact that a goodly number of our orchardists get the ground in pretty fair condition, there are but few that prune as they should do. I must keep this item continually in view, for the success of the fruit grower depends as much on this as anything else.

I repeat it again, that it is impossible for a tree to fully develop its fruit when it is overburdened with an

Excessive Top,

And if you want good fruit you must thin out, and that every year, for the limbs are continually forming—and I don't know of an orchard, in my acquaintance, but needs from one-half to two-thirds of the small limbs taken out—and this is more especially the case with peach trees. Now, if you will try this once, you will be astonished at the difference in the fruit; and remember that the top needs thinning all over, and don't go to cutting out large articles here and there, and so spoil the tree. It is a common practice to

Cut off all the Lower Limbs,

So as to make it convenient to plow close to the tree. Now I have three serious objections to this: first, it makes great ugly scars on the tree, and endangers its life; second, it exposes the naked trunk of the tree to the rays of the sun, which frequently kills that side of the tree most exposed; third, it runs the top of the tree so high, that the fruit is much exposed to the disastrous effects of the fall winds, and it is not so convenient to gather. This practice is equally wrong with all kinds of fruit trees and should be discontinued.

I have thus dwelt on the subject of pruning, because in my opinion very much depends on proper pruning, and yet it is so universally neglected. Yet there is another advantage in keeping your trees properly pruned: it is to prevent them from breaking down with fruit. If each limb of the tree is pruned as it should be while it is growing, they will be able to bear their fruit without breaking, and spoiling the tree, as they so frequently do. Now what I have said, so far, has been mostly on the cultivation of apples, although the same instructions will apply to most all kinds of fruit trees that are grown here, and yet I think we can do much better with other kinds of fruit than we can with apples, and I will now mention cherries as one kind of fruit which I think will do better than any other. I have a case at hand to justify the conclusion. Mr. D., near Soquel, has seven

Cherry Trees

In his orchard, that range from 15 to 17 years old, that bear regularly, and from which he sold the fruit last year for $250, and this year for $200, besides what his family used; and from one he sold $50 worth. Now, so far as cherries have been tried, they have done well in all parts of the county; the trees grow very fast, bear young and regularly; and the fruit finds a ready sale. Mr. D.'s trees stand 25 feet apart; and at that distance you can get 60 trees on an acre, and just see what an acre of cherry trees will bring. Suppose you average them at $30 (which is a low estimate for trees of that age) and we have $1,800 from one acre, and I was told by Mr. B., of Watsonville, that he sold $500 worth from about one-half acre of cherry trees, and he said he was sure that his family and his visitors ate and used more than he sold, and so we might go on and show beyond all cavil the enormous profit that might be derived from the cultivation of fruit of various kinds in Santa Cruz county, where we can depend on a fair crop, and of good quality; and for which we have a steady market at good prices.

On Graft Hybrids.

The following paper by Thos. Meehan, Germantown, was read before the American association for the advancement of science, at Buffalo, August, 1876: Of late years an impression has prevailed that hybrids may be obtained by grafting as well as by seeds. Sachs makes no mention of this in his text book, but it has had place in the literature of horticulture for over a hundred years. Bradley says that a variegated jasmine grafted on a common green stock infused the variegation through the whole plant; and there is an idea among some horticulturists that an intermixture in apples can be obtained by uniting two halves of different buds and grafting them together. Thousands of people have laughed at these notions. No one has tried them. But only a few years ago it was found that Bradley was right; and we have in cultivation new variegated forms of *abutilon*, as well as some other things originated by the graft process.

During the past few years it has been asserted that new varieties of potatoes have originated in this way: a tuber is taken and all the eyes cut out. A wedge with an eye of another kind is then inserted into the eyeless mass and planted. The results are said to be true hybrids. Many of our best physiologists doubt this. I have not seen these cases; but I must say the evidence offered is much stronger than much of that on which some popular theories have been built. I tried the split and grafting process, not believing it would result in a hybridity. I merely wished to test the popular notion. I am pleased to be able to say now that it is correct. New varieties can be obtained in that way. I took the Rhode Island Greening and the Red Astrachan—two very distinct varieties of apples in every respect. The grafts with a single bud were split as near through the center as possible, and a piece of each kind fitted together so as to appear one complete scion. Twelve of these were grafted; three grew; two of these have fruited; neither are Rhode Island Greening, and the two are unlike each other; one of these has a flower like the Rhode Island Greening, and the flower of the Red Astrachan is rosy and in many ways distinct from the large white one of the Rhode Island Greening; but the fruit is, in many respects, similar to that of the Red Astrachan.

The second variety has the flower similar to that of the Rhode Island Greening, and the fruit somewhat the color of the Red Astrachan, ripening about the same time, but is but half the size, very much flattened, and with a slender stem near two inches long, and as much like that of a Siberian Crab as can be. There is no doubt but two varieties, distinct from their parents, and distinct from each other, have resulted from this graft process. Some may suppose that the union of a Red Astrachan and a Rhode Island Greening apple should result in producing an exact intermediate, and that the union of buds in several graft cases should each produce identically the same, and therefore the two distinct varieties from the same process be a surprise. But no two children of the same parents are exactly the same; and this is the experience of plant hybridists. Our fellow-member, Mr. W. Saunders, of London, Ontario, crossed the American gooseberry (*Ribes Cynobasti*) with the Red Warrington, an English variety, but both with hairy fruit. The hybrid product has smooth fruit, thus introducing a character not extant in either parent. And as regards variety, I have myself, from one single berry of a fertilized fuchsia, produced several acres of plants, among which no two were alike. I do not know that there is any pomological value in the new varieties of apples I have raised, but I am delighted with the scientific results, proving that hybrids by bud-grafting is more than a popular delusion.

Signs of Health and Debility.

Dr. Reginald Southey, in one of his lectures on "Individual Hygiene," sums up the signs of sound health and debility as follows: A sound constitution depends upon a body well constructed both inside and out, and upon a balance of functions, circulation, respiration, innervation, digestion, sanguification, each well, all unconsciously fulfilled; upon a temperature well maintained all the body over; and last, but by no means least, upon good habits of life. A man, as Celsus said, is not to live too much by rule; he should be the master, not the slave of his body.

The state of health is a state of very perfect hæmatosis, in which the tissues of the body are neither too moist nor too dry. Flabby muscles and hydræmia of the intercellular tissue are suggestive of debility if not of actual disease. There appears to be a maximum of solidity, a ratio between weight and night and girth, which coincides with that period of life when the energy or vigor is greatest, when each individual is capable of his greatest feats of strength and endurance; it is better marked in males than in females, and happens at or about the 30th year of life. This is the quality of body which the hygienist aims at prolonging.

The following signs may be accepted as evidence of sound health: 1. Individual adaptability: the capacity in man to adapt himself to extremely opposite conditions of existence without suffering inenergy. 2. Endurance: the capacity of supporting considerable bodily or mental labor without suffering from fatigue, or of repairing the latter quickly. 3. Self-command: the capacity of controlling the emotions, blunting as well as sharpening the sensations of will. 4. Resistance to morbific influences: the capacity of eliminating all poisons quickly by dint of sound organs of excretion.

The following signs of debility ought to be enumerated as well: 1. Deformity, obesity, leanness: bad construction of the skeleton or of its clothing. 2. Personal inadaptability: liability to disturbance of either mind or body upon slight provocation, such as change of food, clothing, climate, or any interruption of the ordinary habits. 3 Lack of endurance: small staying powers, requiring long rest to repair fatigue. 4. Small emotional control: the persons who are quickly provoked to anger, or are speedily moved to tears or laughter, exhibit feeble nervous system, and are prone to nervous disorders. 5. Proclivity to morbific influences: those whose organs of sanguification or of elimination are damaged; who, although equal to ordinary calls upon them, exhibit their inefficiency by succumbing to every contagion, miasma, or poisonous influence that they encounter.

Wool and Hair Under the Microscope.

The *American Naturalist* furnishes some interesting facts on this subject. The United States Treasury Department has admitted hair goods free from the duties levied on those composed in part of wool; and evidence having been furnished that some fabrics, claimed as made of hair, contained more or less wool, a commission was appointed, in which Dr. J. G. Hunt, the well known microscopist, was associated, for the examination of these fabrics. The possibility of distinguishing in manufactured mixture the hair of the cow and calf and that of the sheep has been denied by some microscopists, especially as these fabrics vary on different parts of the same animal. The commission has, however, been able to classify and distinguish them. Wooly hairs have no pith, and no perceptible taper. Their mean diameter varies from a five-hundredth to the thousandth part of an inch. At irregular intervals they have one-sided spiral thickenings, causing the wool to curl. They occur on sheep, camels, goats and llamas; and many other animals have a portion of these wooly hairs. On the other hand, straight hairs are shorter, thicker at base and tapering. The pith is a large part. The scales on the outside, of which there are twenty to forty in a hundredth part of an inch, lie smoothly. In wool they project more or less, and are from fifteen to thirty in the hundredth part of an inch. With these and other distinctions before them, the commission found, by first bleaching the colored fibers in mineral acids, and then mounting them in glycerine, and by using high powers, that in a few samples there was no wool; in a larger proportion there was a small quantity; in a very large number of samples there was from five to ten per cent., as well as a much larger proportion; and in two cases it was difficult to find five per cent. of genuine cow hair.

CONCERNING PUTTY.—Glaziers' putty is made by working ordinary whiting into a paste with drying oil. Common putty becomes exceedingly hard with age, a circumstance which renders the removal of glass from sashes peculiarly difficult. Old putty may be softened by using a paste of caustic potash, easily prepared by mixing carbonate of potash or soda with equal parts of freshly burnt quicklime, which has previously been sprinkled with water, so as to cause it to fall into powder. This should be mixed with water to a paste, and spread on the putty to be softened. Where one application is not sufficient, it is repeated. In order to prevent the paste from drying too quickly, it is well to mix it with less water, adding some soft soap instead. By the application of a hot iron the putty becomes so soft that the glass can be removed by the fingers and the putty easily scraped away. All that is required is a block of iron about two and one-half inches long by one and one-half inches square, flat at the bottom, and drawn out for a handle, with a wooden end like a soldering iron. When hot (not red hot) place this iron against the putty or flat on the glass, and pass it slowly round the sides of the square. The heat will so soften the putty that it will come away from the wood without difficulty. Some of it may be so hard as to require a second application of the hot iron, but one experiment will give sufficient instruction to meet all difficulties.—*Journal of Chemistry.*

NEW MAP.—The United States Centennial map has just been placed in the west end of the government building. It was prepared for the exhibition at the general land office, and is 17 feet in hight by 22 feet in length, and divided into nine sections, each mounted on a separate stretcher. The whole is enclosed in a massive frame of walnut, bird's-eye maple and ebony, and weighs 2,000 pounds. It shows the extent of all surveys, Indian and military reservations, land grants, railroads, canals, cities, and towns, and, in fact, every possible detail, from the most authentic sources.

The Last Arctic Expedition.

Though Captain Nares and his colleagues have failed to achieve complete success, says *Iron*, there can be no disputing that they have thoroughly deserved it. They found the way to the pole, beyond the utmost northern land, barred by ancient and thick-ribbed ice, over which progress with sledges was impracticable at a greater speed than a mile a day; and there were over 400 miles between them and their goal. The sledging, besides, seems to have been sometimes done under a temperature of 40 degrees below zero. Scurvy, too—the great bane of northern navigators, against which even preserved meats appear to furnish no remedy—with the lowered vitality and muscular weakness it induces, attacked the explorers. The winter's night was prolonged through 142 periods of 24 hours; and when the sun returned to illumine a still longer day, the spirit in the thermometer, for the cold was below the freezing point of mercury, indicated 70 or 80 degrees of frost. The lower deck of the *Alert* was kept, all throughout the long and savage winter, at a mean temperature of 49 degrees, and that while on the upper deck the air was 70 degrees below zero. It is now almost certain that the immediate circumpolar region is covered by a shallow sea, and access to the earth's axis blocked by ice floes, practically impassable by all known means of progression. If it has thus failed in its first and most popular object, it is satisfactory to learn that the expedition has done excellent work in a really more important direction. Many and weighty observations in physical science have been made. In geology, miocene strata, entombing a flora and fauna that indicate a comparatively warm temperature at that period, have been traced as far as the existing boundary of animal and vegetable life; and should it be necessary to repeat or extend investigation at or about the same point, the find of a thick seam of excellent coal close to the winter quarters of the *Discovery*, will prove of great service.

A POWERFUL DIGGING MACHINE.—In a railway excavation in Scotland, one of the machines used is an ingenious digger invented by Mr. Milroy, and which, after excavating to a depth of over 90 feet, struck the rock for the first time. In construction, and in the action of its various parts, the digger somewhat resembles an inverted umbrella, except that the connecting bars, representing the ribs of the umbrella, are swivelled and worked on points at either end. As affording some idea of the powerful action of the machine at present in use in Glasgow, it may be mentioned that it can grasp within its gigantic "claws" as much as three tons of material. It is worked by means of an engine of 16 horse-power, the chain used in the operation being no less than 345 feet in length. The cylinders themselves are immense specimens of foundry work. Around the cylinder, on the inner side, weights have been placed to the extent of 280 tons, the object of arranging this enormous mass in such a position being to provide against the probability of the adjacent ground subsiding to a degree which would be highly dangerous. Boulders weighing as much as seven or eight cwt. were brought up by the digger. The clay encountered in one part was of a consistency similar to india rubber. This kind of material being encountered to the extent of 50 feet in depth, the difficulty of the task will be readily imagined; and it speaks well for the strength and efficiency of the digger that it has performed its work very satisfactorily, and there has not been, as far as can be ascertained, a single inch of subsidence since the contractors first commenced operations.

SCIENCE OF A CIGAR.—The *Scientific American* shows that a cigar contains acetic, formic, butyric, valeric and propionic acids, prussic acid, creosote, and carbolic acid, ammonia, sulphureted hydrogen, pyridine, viridine, picoline, lutidine, collodine, parvoline, coridine and rubidene. "The blue up-curling smoke," which leads the smoker to reverie, contains water in a vaporous state, soot, carbonic acid and carbonic oxide, and a vaporous substance condensable into oily nicotine. The feathery white ash, which in its cohesion and whiteness is generally considered indicative of a good cigar, yields potash, soda, magnesia, lime, phosphoric acid, sulphuric acid, silica, and chlorine. The ingredients of a poor cigar, a "cabbageora," for instance, is fearful and wonderful to contemplate. An English parliamentary report on adulterations in tobacco gives the following list: Sugar, alum, lime, flour or meal, rhubarb leaves, saltpeter, fuller's earth, starch, malt commings, chromate of lead, peat moss, molasses, burdock leaves, common salt, endive leaves, lampblack, gum, red dye, a black dye composed of vegetable red, iron and liquorice, scraps of newspaper, cinnamon stick, cabbage leaves, and straw (brown) paper. The English, we believe, have a reputation for manufacturing poor cigars. If the foregoing are some of the ingredients, or component parts of their stock, we pity them. With such a formidable array of "rare chemicals," how can one expect to obtain a good cigar for less than ten cents?

CHANCE FOR INVENTORS.—The *Carpet Trade* says: A practical carpet-sewing machine is still an unsolved problem. The attempt very generally made by most of our large retail carpet houses, of sewing their carpets by machines has had to be abandoned in consequence of unsatisfactorily bu ky seams. We believe there are not more than two or three machines used at present in the country.

Useful Information.

Preservation of Timber.

The *Building News* gives the following valuable information: Presuming the timber has been felled at the proper time and stacked with care, and is delivered in a good state ready for the builder, the means employed to preserve it are various, and must depend in a great measure upon the nature of the work for which it is to be employed. For instance, if it is for external work of a common character, the best preservative is to well paint it, and, while still wet, strew it with sand, and, as soon as the paint has perished, repaint it. For posts and piles exposed to the action of moisture in a great degree, the best means is to char the wood, as it then in a measure becomes incorruptible. Semple advises scorching the wood all over, and, while still hot, rubbing it with linseed oil and tar; the scorching can be effected by passing over the timber a powerful flame produced by coal gas and a blow pipe. As a preservative against worms nothing can be done better than to saturate the wood with any of the oils. As to the patent methods for the preservation of timber, there is one by Kyan, patented in 1832, which consists in impregnating the timber with corrosive sublimate, and another of a similar kind patented by Payne in 1841. The best preservative for timber I can recommend is (after having obtained the best seasoned, and when worked for the various purposes required), for it to be well rubbed with oil, and, when framing it in its place in the carcase of the building, taking care to keep it as much as possible from the masonry, and allowing the circulation of plenty of air without being liable to action of the weather, and when the carcase is complete, allowing it to stand as long as possible before the timbers are covered in, so that they may have, as it were, a second seasoning.

Wet and dry rots are two forms of decay which attack timbers exposed to the action of the weather, and the cause of both may be said to be heat with moisture. Confined air and evaporation cause dry rot, and imperfect evaporation wet rot. As a preventive against these rots the timber should be well seasoned, and if used where liable to be under the influence of sun and rain, should be well painted. If not painted they must be impregnated with linseed or oil of tar; but the best preventive is to allow a free circulation of air around the timbers, and the walls to be allowed to dry thoroughly before the introduction of the timbers. Should the timbers have taken either of these rots very little can be done to preserve them. If the rot is perceived to be at the end of beams only—and here it generally commences—the best way to preserve the rest of the timbers would be to cut away the decayed portion and scarf with sound. Should this not be practicable, the wood should be scraped and cleaned of all fungus or extraneous matter, and then impregnated with any of the oils, or some of the patent methods referred to above.

Spontaneous Combustion of Oily Refuse.

Mr. J. J. Coleman, of Glasgow, has recently transmitted to the *Societe Industrielle* of Mulhouse, France, a memoir on the spontaneous combustion of oily refuse, and on the relative inflammability of the different oils employed for lubricating purposes. He describes a series of experiments upon fragments of cotton, linen, jute, and woolen waste, saturated with oils of different natures. The materials were placed in a box of tin, having a double bottom, in which steam entered, so that the part which received the refuse could be maintained at a temperature of 180 deg. Fah. A thermometer was inserted in the oily substance so that the variations of temperature occurring therein could be noted.

The results obtained show, first, says the *Scientific American* in a summary, that any vegetable or animal oil inevitably takes fire after a few hours, under the above conditions. On employing cotton waste the mass burns quickly and with flame, in contact with the air. Wool refuse is slowly transformed into a black carbonaceous mass. Second, the addition of mineral oil—known as lubricating mineral oil—serves to retard the spontaneous combustion of vegetable or animal oil if mixed in small quantity. If a large amount be added, inflammation is entirely prevented. The mineral oil used by Mr. Coleman is a very dense product (density 890), having great viscosity and emitting no inflammable vapors, even in contact with an ignited body at any point below 338 deg. Fah., or in other words, remaining safe at temperatures at which mixtures of less dense mineral oil or colza oil burn. The addition of 40 per cent. of mineral oil is sufficient to prevent spontaneous combustion. Twenty per cent. doubles the time necessary to determine conditions favorable to the same. Spontaneous combustion occurs most quickly when the cotton is soaked with its own weight of oil.

To Remove Putty.—A block of iron about two and a half inches long by one and a half inches square, flat at the bottom and drawn out for a handle with a wooden end, like a soldering iron, is an excellent implement for removing old and hard putty from sashes. When hot (not red hot) the iron is placed against and passed slowly over the putty, which becomes softened by the heat and is rendered easily detachable from the wood.

Centennial Figures.—The following are the official figures concerning the exposition:

Monlh.	Days.	Paid.	Total.	Receipts.
May.....	19	378,980	613,495	$189,490 35
June.....	26	695,666	952,177	317,833 40
July.....	26	636,518	906,447	318,199 25
Aug.....	27	908,084	1,175,314	4 5,659 25
Sept.....	26	2,130,991	2,439,689	928,056 00
Oct.....	26	2,334,530	2,663,879	1,160,811 50
Nov.....	9	918,956	1,038,391	453,700 00
Total..	159	8,004,325	9,789,392	$3,813,749 75

A recapitulation of the above shows the following:

Number of days open.....	159
Paid admissions.....	8,004,325
Free admissions.....	1,785,067
Total admissions.....	9,789,392
Grand total of receipts.....	$3,813,749.75
Average daily cash admissions.....	50,341
Average daily total admissions.....	61,568
Average daily receipts.....	$13,915.85

Portland Cement on Woodwork.—Portland cement has many uses in the garden and elsewhere, not generally apparent. Some of them are enumerated by the *Garden* as follows: When made into a thin solution like whitewash, this cement gives woodwork all the appearance of having been painted and sanded. Piles of stone may be set together with common mortar, and then the whole washed over with this cement, making it look like one immense block of gray sandstone. For temporary use, a flour barrel may have the hoops nailed, so as not to fly apart, and the inside washed with a thin paste of Portland cement, and it will serve for a year or more to hold water. Boards nailed together and washed with it make good hot water tanks; and it is of use in so many ways that it may be regarded as one of those peculiar things in a garden which it is always good to have at hand.

The People's and Grangers' Immigrant Bureau, 40 California St.

This institution, according to reports published in the daily papers, has provided situations free of charge for more than 6,000 applicants, and furnished 7,000 persons in search of lands for settlement with letters of introduction to prominent citizens in the interior. The services of the bureau are entirely free to all, as it is supported by subscription. It is just what we need in California, and should be supported. Orders for help will be filled free of charge to either employer or employee. Send them in. Hundreds of immigrants are waiting for them.

Mining and Scientific Press Patent Agency.

The Mining and Scientific Press Patent Agency was established in 1860—the first west of the Rocky Mountains. It has kept step with the rapid march of mechanical improvements. The records in its archives, its constantly increasing library, the accumulation of information of special importance to our home inventors, and the experience of its proprietors in an extensive and long continued personal practice in patent business, affords them combined advantages greater than any other agents can possibly offer to Pacific Coast inventors. Circulars of advice, free.

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DEWEY & CO.,

Publishers Mining and Scientific Press and Pacific Rural Press, 224 Sansome Street, S. F.

A. T. DEWEY, GEO. H. STRONG,

W. B. EWER, JNO. L. BOONE.

Appreciative.

Dewey & Co., San Francisco—

Gentlemen:—My pstents for the Eclipse Baling Press and for my Improved Excavator have both come safely to hand. They are entirely satisfactory in all respects, and in my judgment, fully and clearly cover all the points to which I am entitled. I thank you earnestly and sincerely for the care and dispatch you have used in both cases, but wish to acknowledge my especial obligations for the patient persistence with which you pushed my claims on the excavator, in the face of the various adverse decisions of the examiner. When you advised me to appeal on a certain claim, I had grave doubts of the advisability of the proceeding, but the result justified your judgment, and I was as much surprised as gratified when I received notice from you that the examiner had receded from his position in the matter, and that the money that I had advanced to prosecute the appeal was not needed, but awaited my order. I will add also that I had some misgivings as to the cost of patents obtained through your agency when compared with Eastern solicitors, but am glad to acknowledge that my cases have been as cheaply prosecuted by you as by parties East, to say nothing of the advantage of personal conference as to claims and the saving in point of time. I have two more models nearly ready for you. Yours respectfully,

Jacob Price.

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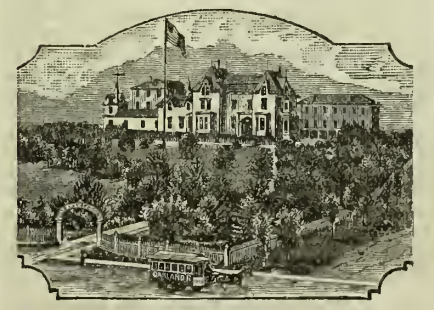
The Threshers' Guide, by D. W. Hollihan, a practical operator with threshing machinery in California and other States. A book of useful and friendly hints to the grain growers, machine owners and threshing superintendents and workmen. Published at the Rural Press office, in 1872. Price, $1; in limp cloth binding, 75 cents; postage paid.

Our Poultry Department.

E. H. Cheny writes from Bodega, Sonoma county, as follows: "Your paper is worth its subscription price yearly to any farmer who keeps two dozen chickens, to get Mr. Eyre's opinion upon the value of the different breeds of fowls, the proper treatment for them, the diseases to which they are liable and the remedies. I became acquainted with Mr. Eyre through your columns, and I have no cause to regret it, for in my dealings with him I find everything as represented, and without any disparagement for others, I can recommend him as one in whom confidence will not be displaced."

Any Person receiving this paper after giving an order to stop it, may know that such order has failed to reach us, or that the paper is continued inadvertently, and they are earnestly requested to send written notice direct to us. We aim to stop the paper promptly when it is ordered discontinued.

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Purchasers of Stock will find in this Directory the Names of some of the most reliable Breeders. Our Rates.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

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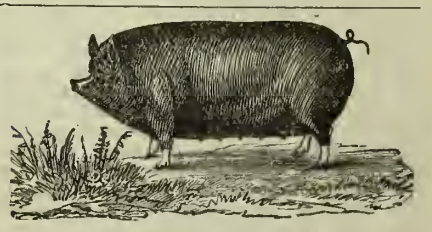
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Something to send East to your friends!
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Eighteen Photo-lithographic Views of the Pacific Coast—Golden Gate, San Francisco, Mission San Juan Capistrano, Cliff House and Seal Rocks, Sutter's Mill, Quartz Mill and Mining, Hydraulic Mining, Yosemite Fall, Big Trees, Vernal Fall, Geyser Canyon, Donner Lake, Uncle Sam, from Lakeport, Mount Diablo, from Benicia, Mount Shasta, Fort Point, S. F., University at Berkeley, State Capitol; all enclosed, in an oroide box, with the design of the U. S. $20 gold piece stamped thereon. Sent postpaid for 30 cents; four for a dollar. Send postage stamps, P. O. order, currency, gold or silver. Address,

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A Boy for the Country.

An intelligent lad, 13 years old, wants a permanent home in the country. Address J. B. PORTER, dentist, Oakland, Cal., or at this office.

The Need of a State Survey.

The last lecture before the university students was delivered by Prof. Hilgard, of the agricultural department. His subject was "Industrial Surveys and Experiment Stations." Among other things he presented the needs of a complete survey of the State, as a basis of all agricultural advancement. He said:

Many mistakes have doubtless been made by those to whom the management of State surveys has been entrusted. It could hardly be otherwise, when we consider that there are probably no two States in which, were the work conducted to the best possible advantage, the order and manner of proceeding should be precisely alike. After a survey has progressed for some time, it becomes apparent how it should be made; but in any case, as I know from personal experience, it is impossible to satisfy all critics.

I do not stand here as the special advocate of Prof. Whitney's order of procedure; but I do wish to say here, as an expert, that whatever he has ordered to be done was work that needed doing, and it has been well done as far as it goes.

The scientific groundwork has been laid, and well laid. It now remains to work out its practical side; and right here, unfortunately, the survey has been stopped. I have no fears that it can long remain so in this eminently progressive State of California. A loud call for its continuance, and especially for the elaboration of its industrial bearings, was drowned, at the last session of the legislature, by the still louder cry for retrenchment. Now retrenchment is laudable, but it may be enforced at the wrong end. I say there was a loud call, and the call continues, and will continue and grow louder, until legislators will heed it. But it is true that many of those interested are not aware what it is they are asking for. Look at the queries column of agricultural and even general newspapers, and to the local communications they constantly publish and consider as of special interest to their readers. You will find that they treat to a very large extent of local peculiarities, which are of vital interest to the settler, but regarding which he can find no authentic source of information. Look at the glowing advertisements of lands for sale, and the numerous pamphlets issued by private parties, descriptive of particular districts in which they are interested.

Much of the information thus conveyed is correct and sound as far as it goes. Some of it is, often unconsciously to the settler, grossly exaggerated and incorrect. Persons not in the habit of close observation are very generally liable to convey false impressions in their descriptions. But where is the settler or immigrant to go for authentic and unbiased information? Now, it is precisely this kind of information that is wanted by every farmer, settler, immigrant and investor: an authentic, systematic, intelligible and scientifically accurate account of all the practically important features of a State, and its natural subdivisions; of the climate, location, soil, natural and artificial productions and probable future industrial adaptations. It is just this class of facts, I say, that a State survey, call it by what name you will, should primarily furnish. While it would be a preposterous waste of precious materials to omit the publication of the record of purely scientific observation, which must form the groundwork, there must be a portion of the report, at least, written especially for the industrial classes, in the plainest language possible, giving the facts and conclusions that interest them directly. This portion of the survey report should, in other words, be the text book from which every one interested in industrial pursuits could at once call the facts that are of interest to him, so far as the natural features of the State are concerned. In illustration of this, let me call your attention for a few moments to the colored map of Mississippi, here exhibited. It purports to be a geological map, the colors representing the areas occupied, or rather underlaid, by the several geological formations. But it does much more than this, for with very slight modifications, these colors also represent the several agricultural regions of the State, its prominent surface features, and special adaptation to different products. In the report accompanying this map, I have so far separated the strictly scientific matter from the portion bearing more directly upon the industrial features, that any one can easily find in it all the details known regarding any part of the State; not only as regards the natural features, but also with respect to the experience thus far had in the cultivation of the different soils and their adaptation to different crops. Also the results of the examination and chemical analysis of soils, and of the materials and methods adapted to their improvement, that may be most available in each locality.

Such is the outline of the plan pursued by me in the State of Mississippi, and which met the approval of public opinion there. And with such differences of detail as local circumstances always necessitate, the same plan substantially is now being carried out in most of the States having such work in progress. Apart from the direct importance to those engaged in industrial pursuits, of the information obtained in the course of the physical survey of a State, there is another aspect which comes home more especially to you and your successors. It is, that the knowledge thus obtained of the features and resources of the State will enable us who teach you to give you instruction of a more truly practical character. For with this knowledge we will be able to tell you, not only what, on sound principles, you should do in certain suppositious cases, but also to discuss and prepare you for the special cases that, in fact and in practice, you will have to deal with in your own State. Then, and then only, can the limited time that you have staked out for your professional education, be made such use of as will overcome once for all the idea entertained by some that what we teach you here is not "practical."

Gang Plows at Salinas Fair.

EDITORS PRESS:—It is evident that your correspondent (as will be seen by enclosed clipping from your paper) ignores the decision of the judges or committee of awards on gang plows, at the Salinas fair, and after expressing much surprise at their want of judgment, resolves himself into a committee of one and gives to the farmers of California, through your columns, a minority report that the Eureka, which received the first premium, was inferior to a certain other gang, which he was evidently "greased" to write up. Your correspondent did not show himself or make himself known at the trial or fair-ground. If your correspondents are on the "grease" they should let themselves be known. We had supposed that your special correspondents did not require or expect "doping" in order to give us a fair showing, after a committee of intelligent and practical men had passed their judgment in favor of Hill's Eureka gang. Yours respectfully,

F. A. HILL.

If Mr. Hill has proof that our correspondent was bribed we shall thank him to put us in possession of it. We have none. We admit his comments as a matter which it is fair to discuss. The award of the committee to the Eureka plow was only noticed in the PRESS of the previous week in the official premium list. If our correspondent, perhaps over-charged with local spirit, made any statements which are not correct, we shall be pleased to have them corrected.—EDS. PRESS.

"HOMES IN CALIFORNIA."—This is the title of a neat monthly paper published by "The Country Real Estate Associates," for the purpose of making known the inducements for immigration to California and the Pacific coast, and bringing to the notice of intending settlers or purchasers desirable farms, grazing lands and town sites. The peculiarities of any county can be learned by a single visit to the office of the paper, if a glance through the columns should not afford the desired information (a short synopsis of the "points" of each county preceding the advertisements of lands or farms in that section). In the language of the prospectus, the object of "The Country Real Estate Associates" is to aid strangers to make a selection of places for homes, and to "obviate, as far as possible, by the establishment of a central land office, where strangers can learn what are the attractions and inducements, as well as the drawbacks, of the various parts of the State, and govern themselves accordingly. Lists of farms for sale with price per acre and terms of payment, and full and accurate descriptions of the size, location, state of improvements, stock, nearest market, schools, condition of society, and other points of interest of each place will be displayed in the office. Such a list, embracing upward of a thousand different farms, varying in size from 10 to 50,000 acres, in location from Siskiyou to San Diego, and in climate, from the snow-line of the Sierras to the eternal summer of the semi-tropical South, cannot fail with the intelligent direction of the managers to assist the inquirer materially in the selection of a home. The officers of the company are experienced farmers now owning and cultivating land."—*Alta.*

BULL'S HEAD STOCK YARDS.—We have an announcement in our advertising columns from Rollin P. Saxe, of the opening of a "Bull's Head" in this city. It will be a headquarters for the show and sale of live stock. This is an institution which has been needed in this city and we expect it will prove a great accommodation to our stock salesmen and buyers. We expect at some future time to describe the establishment fully. We have space at this time but to recommend all stock men to call and inspect Mr. Saxe's arrangements.

INDIAN WHEAT.—The latest note on the subject of wheat growing in East India is as follows in the *Agricultural Gazette* of London: "The Calcutta wheat trade has had a wonderful rise lately. In 1870 the amount exported was 2,000 tons; in 1873, 10,000 tons. In 1874 it decreased to 8,000 tons and last year rose to 50,000 tons. This year already 120,000 tons have been exported from Calcutta alone. This wheat is grown chiefly in the Punjab, and is much valued in the English market, mainly on account of its great dryness."

FINE GRAPES.—We thank Dr. Strentzel for a box of assorted grapes from the famous Alhambra vineyard in Contra Costa county; they are renewed proof of the generous resources, both of the Doctor's heart and vineyard.

Important Land Decisions.

WASHINGTON, November 18th.—The recent Supreme Court decision in the case of French vs. Fyan and others, from the Circuit Court in Missouri, has a vital California interest. It holds that swamp land patents cannot be impeached by actions at law, and overruled the old decisions of the California Supreme Court. The land in dispute was vested in plaintiff through a purchase from the Missouri Pacific railroad company, to whom it had been certified in 1854, as part of the land granted to aid in the construction of said road. To overcome this *prima facie* case, the defendant introduced the patent issued to Missouri under the swamp land act of 1850, and it was admitted that the defendant has a regular chain of title under this patent. At this stage the plaintiff offered to prove in rebuttal, by parol evidence, that the land was not swamp or overflowed and unfit for cultivation, and that the greater part thereof had never been so since 1849. The court below ruled that since the defendant introduced the United States patent to the State for the said land as swamp land, this concluded the question, and ruled out the parol evidence, and the plaintiff accepted. The Supreme Court sustains the court below, under its previous decisions, that the swamp land act was a grant *in presenti*, by which the title to those lands passed at once to the State in which they lay, except to States admitted into the Union after its passage. The court holds in substance that parol testimony cannot be received to overturn the decision of the Secretary of the Interior, as declared in the patent, that officer having been made by law the tribunal, whose decision of such questions was controlling. Judge Field called the attention of the Court to a series of California decisions, taking a different view from that held by the Supreme Court. In this case, Judge Miller's opinion on behalf of the Supreme Court says: "In reply, with all respect for that court, we are unable to concur in the views therein expressed. The principle we have laid down is in harmony with the system which governs the relations of the courts to the officers of the Executive Department, especially those having charge of the public land, as we have repeatedly decided, and we must abide by them." The Court further holds that there is no conflict between its present decision and the former one in the case of the railroad company against Smith.

Decisions of the Secretary of the Interior.

Copp's Land Owner for November reports a decision by the Secretary of the Interior in effect as follows:

The filing of a declaration of a preemption statement before settlement does not invalidate a right in absence of an adverse claim. All *ex parte* evidence filed after the close of the hearing in a contested land case, before the local land officers, must be rejected except as a basis for an application for a new hearing. All documents, all exhibits, filed in the case, when the same have passed beyond the jurisdiction of the general land office, must be passed upon by the department proper, and no paper thus filed should be referred by the general land office.

In school grants, where a party settled on land in the 15th or 36th section, long prior to the survey thereof, but has exhausted his preemption privilege, he cannot by a homestead entry prevent the tract from passing under the school grant.

Regarding swamp lands, it says that to settle upon lands of a swampy character would raise such a doubt of the settler's good faith, as upon a proper application to justify an order for an investigation. At such a hearing the character of the land at the date of the settlement should be determined. When notice of the selection of a tract by the State is received at the local land office the State should be notified before proof and payment is made by the settlers thereon. But where patents have been issued under the former ruling of the Interior Department, cases will be considered *res judicata*.

Timber culture.—Land covered by an invalid State section may be entered under the provisions of the timber culture act, or otherwise subjected thereto.

BUERRE COIT PEAR.—A correspondent reminds us that the credit for first making known the good qualities of the Buerre Coit pear (which was illustrated in the RURAL of Nov. 11th) belongs to F. R. Elliott, the well-known horticultural writer. Mr. Elliott made the first drawing, and the engraving was made by D. D. T. Moore, then of the *Rural New Yorker*, at Rochester. These facts are of interest and should have appeared in connection with the illustration.

CHUFA.—Since we, and some of our readers, were swindled by the Tennessee advertisers of chufa, we have made but little note of the vegetable. We now have an advertisement from L. L. Bequette, of Downey City, Los Angeles county, Cal. Our agent at Los Angeles informs us that Mr. Bequette is a trustworthy man and our readers who wish to try chufa can, doubtless, get a start from him.

A TELEGRAM from Columbus, Ohio, announces the death, on Friday, on the train, of Commodore Paul Shirley, U. S. N. Deceased was en route to Memphis to visit his sister, Mrs. Rice.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

Notices of Recent Patents.

Among the patents recently obtained through Dewey & Co.'s SCIENTIFIC PRESS American and Foreign Patent Agency, the following are worthy of mention:

MACHINE FOR OPERATING EARTH AUGERS.—E. M. Hoagland, Watsonville, Santa Cruz county. This invention is an improved machine for handling and operating earth-boring augers for wells and other holes in the ground. The inventor provides a very convenient and simple machine for operating boring augers, as it permits him to finish a cutting of a certain depth and without stopping the operation to raise the earth to the surface, the whole being performed automatically. It would be difficult to describe the apparatus in detail intelligently without the aid of engravings.

WASTE TRAP.—Frederick Pohley, San Francisco. This invention relates to an improved trap for water pipes, and it is more especially useful for making connections with sewers, water closets, etc. It consists in the employment of a pipe having an exit valve at its lower end. This valve is connected with springs which operate to close it after a certain amount of water has run out, and the remainder is retained and acts as a trap to prevent the return of foul odors. The trap may be operated automatically by the weight of water in the pipe or by hand, foot, or other power, as in water closets, and may be so connected in the latter case as to open a valve and allow water to enter and wash out the basin.

CORK PULLER.—John S. Sanders, Princeton, Colusa county. This invention consists in permanently attaching to a cork or bottle stopper a bale or handle which can be used for drawing it from the mouth of the bottle or other vessel which it is used to close. The invention consists in passing a ribbon or other inelastic strip of webbing or textile material through the cork, near its lower or smaller end, so that a sufficient length of ribbon will extend out upon each side of the cork or stopper to project outside of the bottle when the cork is pressed in. These projecting ends can then be united together, so as to form a bale or handle, which can be used for drawing the cork. To prepare the cork for use, the inventor takes a flat, sharp needle, with a wide eye near its point, and inserts one end of the strip into the eye. He then forces the needle through the cork at a point near its lower end, so as to carry the ribbon through it far enough to allow its two ends to be tied together above the cork, and form a handle as described. This kind of an arrangement for pulling corks has been used before, but the ribbon passed under the bottom of the cork, and was liable to taint the liquid or would become rotten in time, so as not to be strong enough to pull the cork. With this improvement the cloth or strip is protected, so that it does not come in contact with the liquid, and these objections are avoided.

WHAT IS A CAR LOAD?—Nominally, a carload is 20,000 pounds. It is also 70 barrels of salt, 70 of lime, 90 of flour, 60 of whisky, 200 sacks of flour, 6 cords of soft wood, 18 or 20 head of cattle, 50 or 60 head of hogs, 80 to 100 head of sheep, 9,000 feet of solid boards, 17,000 feet of siding, 13,000 feet of flooring, 40,000 shingles, one-half less hard lumber, one-fourth less of green lumber, one-tenth less of joist, scantling, and other large timbers, 340 bushels of wheat, 400 corn, 680 of oats, 400 of barley, 360 of flax-seed, 360 of apples, 430 of Irish potatoes, 360 of sweet potatoes and 1,000 bushels of bran.

THE official *Gazette* at Calcutta publishes a minute of Sir Richard Temple, Lieutenant-Governor of Bengal, giving the result of his visit to the districts of southeastern Bengal, which were devastated by the last cyclone. The minute confirms the previous estimate that 251,000 persons perished in the cyclone.

DIRECTORY OF ALAMEDA COUNTY.—L. L. Paulson's new directory for Alameda county is out. It is full of valuable information.

WOODLAND, CAL., Aug. 8th, 1876.

MESSRS. DEWEY & CO.—*Gents:* Your letter containing the patent for my Centennial churn has come duly to hand, and you will please accept my many thanks for the prompt manner in which you attended to the business intrusted to your care, and I will take great pleasure in recommending you to any one having anything to attend to in your line. I am having a number of the churns put up, which will be ready for sale in a few weeks. Yours truly, JAMES ROOT.

GIVE YOUR FULL ADDRESS when you communicate on business to this office, especially in returning newspapers. The fact that your name is on our subscription list is of no assistance to us. Without sending your post office address we should have to look over thousands of names to find yours.

FOR the rich with few children it may do to buy a shoe without Tips, but to those who are blessed with many children and little money it is ruinous to buy any other than SILVER TIPPED Shoes. Also try Wire Quilted Soles.

SEWING MACHINES.—We have a first-class machine we wish to dispose of on favorable terms. Apply at this office.

SPANISH CHUFA SEED FOR SALE. Address L. L. BEQUETTE, Downey City, Los Angeles Co., Cal.

25 MIXED CARDS, with name neatly printed 10 cents. C. SMITH & CO., Green Brook, N. J.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

San Francisco, Tuesday, Nov. 28th, 1876.

We close our market report one day earlier than usual this week, to give our employees the benefit of the national holiday.

The markets during the week have exhibited a gratifying tendency. Trade has been good, and a sharp advance in Wheat has given a better tone to most other grains. In Wheat the market is now $1.95@2.00 for Shipping; $2.10@2.15 for Milling. Sales are rumored of good Shipping Wheat at Milling figures.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	Cal. Average.	Club.
Thursday	10s 4d@10s 6d	10s 6d@10s 9d
Friday	10s 6d@10s 9d	10s 8d@11s —
Saturday	10s 6d@10s 9d	10s 8d@11s —
Monday	10s 8d@10s 11d	10s 10d@11s 2d
Tuesday	10s 8d@10s 11d	10s 10d@11s 2d
Wednesday		

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	9s 9d@10s	— 10s 3d@10s 9d
1875	10s 9d@11s 1d	11s 3d@11s 7d
1876	10s 9d@10s 11d	10s 10d@11s 2d

The Foreign Review.

London, November 28th.—The *Mark Lane Express* says: Seedling Wheat plant, in consequence of the so far favorable weather, still preserves a healthy appearance. There has been no further spread of the Potato disease in Ireland. The crop, though donbtless suffering from blight in some districts, had not, on the whole, been affected to any alarming extent. The present prospect of trade appears sufficiently strong to justify farmers in holding back their Wheat as long as possible. The continuance of meager supplies of home-grown grain, both in London and country markets, indicates an advance. English Wheat on Saturday advanced a shilling to two shilling in a majority of the provincial markets, but growers showed little inclination to part, even at that improvement; whilst in Mark Lane the few samples offering on Monday fetched fully previous prices.

The local trade, during the temporary lull in political affairs, has regained its natural balance, and a healthy tone is prevailing, although business has not been brisk. This, however, can scarcely be expected, when imports are daily being added to by the numerous arrivals from ports which are ice-bound during the winter. The week's imports have been thus swelled by numerous arrivals of Russian Wheat, while the quantity on passage has also increased, there being now about 200,000 quarters of last shipments from California, to account for this increase. The supply from all other usual sources shows a diminution, compared with the corresponding period last year. The enormous crop on the Pacific slope has been the single great exception to the general rule of a short harvest. If the United Kingdom is its ultimate destination, apprehensions as to future prices might be entertained. The Continental demand may relieve us of a considerable quantity. Maize in London has recovered from its depression, an advance of about sixpence having been realized on account of the Continental demand. Several cargoes off the coast have been taken for Continental ports, especially Bremen, at higher prices than United Kingdom buyers were at first willing to pay, although they subsequently had to allow the advance. There have been few arrivals of Wheat cargoes at ports of call, and a limited business at firm prices.

Freights and Charters.

The *Commercial News* says: The dullness in wheat freights which has characterized the market for some time past has finally resulted in a decline to £2 5s, at which figure an A 1 iron ship was taken for Liverpool direct. There has been some disposition during the week to purchase cargoes on ship's account, and several vessels have accepted outside business rather than lay up. So far five ships have been fixed to load at Philippine Islands for Eastern ports and England, and one bark has been ordered to Hongkong with her inward cargo of coal. The drain on our disengaged tonnage cannot fail to have a strengthening effect on freights if it continues to any extent. At the close we have 43,669 tons in port under engagement to load Wheat, 43,754 tons disengaged and 10,917 tons miscellaneous. The latest charters reported are: Ship Conqueror, 1,621 tons, Wheat to Cork for orders, owners' account; Ship Bonanza, 1,356 tons, Wheat to Cork for orders, owners' account; Br ship Charles Cotesworth, 1,050 tons, Wheat to Liverpool, £2 5s; Br ship Belfast, 1,975 tons, Wheat to Cork for orders, private; Br bark Santona, 855 tons, Wheat to Cork for orders, owners' account.

New York Grain Market.

New York, Nov. 25th.—Breadstuffs and provisions have not been sensibly affected by the European war news this week. Wheat is a turn dearer, but business has been held in check by the advance in freights, which cut off all margins. Spring has sold from $1.18 to $1.37 for graded, and winter at $1.20 to $1.42. Corn and Oats are slightly cheaper, and Barley barely steady. There is an entire absence of speculation in Breadstuffs, albeit present indications seem to favor higher prices during the winter and spring.

Chicago Grain Market.

Chicago, November 26th.—The closing of the past week has been signalized by increasing strength in the Breadstuffs market, and prices, which have ruled higher this week, have been fully maintained. Wheat closes at $1.13; Corn, 44c; Oats, 33c, for cash. The influences brought to bear on the market have been small receipts and rather "bullish" Eastern news, founded on prospects of further Eastern complications. Whether receipts are small on account of the firmness of holders or the panicky state of stocks in the country cannot be definitely stated; but probably the former is the case, since reports so far compiled go to show that the crop is good average in this section. Receipts for the week were: Wheat, 440,000; Corn, 398,000; Oats, 176,000: against 541,000 Wheat, 217,000 Corn. 143,000 Oats in the same week last year. The aggregate shipments for the week have been 587,000, against 811,000 last year. To appreciate these figures, it should be known that last year at this date Wheat was selling at $1.04, Corn at 49c, Oats at 30c.

The Wool Markets.

New York, Nov. 25th.—The Wool market ruled quiet during the week, and though it is claimed by some that holders are showing more dispoeition to meet buyers at market rates than formerly, this is perfectly natural under the circumstances. During the past four months there has been an active inquiry for both manufacturers and speculators, and many holders kept asking from one to two cents above the ruling rates. Now there is less inquiry, and holders have lowered their views to the regular market values. Beyond this there is no weakness visible, and it is not believed that any will occur so long as the situation remains as it does to-day. The stocks in this country are exceedingly limited, and the prices of Domestic have not advanced sufficiently to warrant importations of foreign. The advance at the London auctions is still maintained, and it can be readily seen that holders have decidedly the advantage. The Liverpool auction of East India opened on Tuesday, and prices advanced 10 per cent. Sales for the week were 189 000 pounds Fall California, at 15c for burry and slightly do and 21@22c for free; 30 bales Spring do, 26@28c; 50 burry do, 20c; 15,000 lbs Ukiah, 18½@30c; 47,000 lbs Fall Texas, 23@26½c; 10 000 lbs Low do, 20c; 20,000 lbs unwashed do, 36c; 6,000 lbs State and Ohio Delaine, 48c; and 50 bales Cape, 50 do Spring California, 30,000 lbs Pulled do, 4,000 lbs Scoured do, 20,000 lbs Oregon, 20,000 lbs Georgia, 100,000 lbs Spring Texas, 20,000 lbs Virginia fleece, 40,000 lbs medium Western do, 1,800 lbs coarse State, 3,000 lbs domestic Lamb pulled, 11 bags super do, 34 do black do, and 35 do mixed do, on private terms.

Boston, Nov. 25th.—Wool quiet. Stocks in the hands of dealers are small, particularly fine. The sales of fine fleeces comprise 33,000 lbs. Ohio, 43@47 for XXX and above; Ohio and Pennsylvania medium and X, 42@46; XX, 46@47; XXX and above, 50@52. There is very little disposition to buy or sell. Michigan and Wisconsin firm at 38@40 for good average lots, and 41@42 for choice lots; sales of 30,700 lbs. Business is in Combing and Delaine has been light, comprising 64,000 lbs. A lot of superior Ohio combing sold at 57½. Other lots of Combing and Delaine sold at 44½@55. One lot of Kentucky Combing and Delaine was sold at 37½. Pulled quiet, but commands full prices; sales of 120,000 lbs choice superfine at 43@46. California in better demand; sales of 500,000 pounds Spring, 25 to 35; Fall, 17 to 29.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week Nov. 8.	Week Nov. 15	Week Nov. 22.	Week Nov. 28.
Flour, quarter sacks	94,056	58,923	33,755	23,659
Wheat, centals	273,108	354,142	246,548	369,423
Barley, centals	48,476	19,932	26,287	36,030
Beans, sacks	12,581	6,932	8,088	3,655
Corn, centals	8,800	5,053	5,858	4,199
Oats, centals	22,321	9,918	6,888	18,814
Potatoes, sacks	40,600	26,563	30,143	23,106
Onions, sacks	1,684	1,451	983	1,790
Wool, bales	4,331	2,946	2,208	1,347
Hops, bales	1,680	747	357	1,274
Hay, bales	706	1,240	1,275	1,019

Bags—There is nothing new in the trade. The low prices are still prevailing and little business is expected. The stock on hand is counted to be held over for the season has closed so far as Wheat Bags are concerned. The *Post* says: Very little has been said of the Bag market since the collapse of the combination. The demand is small at present and prices low. Dealers, however, are getting affairs into shape for next season. Sales are reported made during the week of 150,000 Burlap grain sacks at 8⅜c cash. Advices from Calcutta state that there has been a fair demand for shipment to San Francisco, but the inquiry has fallen off at the close. Supplies were freely coming from the interior. Business in power-loom Bags had been dull, and prices were easier. There had been no sales of California grain sacks 36x22 reported, and Rs13 would be accepted for forward delivery. Quotations for A twill Bags, 44x26½, were Rs26; C Bags, 40x27, Rs19.8; E Bags, 40x29, Rs15.8, nominal. The British iron ship Haidee, 758 tons, had been chartered to load jute, saltpeter and sugar to San Francisco at $10 per ton. Three thousand five hundred bales jute had been guaranteed. The Compta had relet some space for gunnies, but particulars were withheld.

Barley—A further strengthening of prices is noted. Considerable sales are made from day to day, and many lots are being stored for the winter trade. We note sales during the week of 300 sks Coast feed, $1.10; 500 do do $1.12½, silver; 500 sks do do $1.07½, half silver; 600 do do $1.07½, silver; 200 ctls Chevalier at warehouse, $1.37½, gold; 1,000 sks Brewing at $1.25, gold; 250 do Chevalier at $1 37½; 4,825 do Feed at $1.10 ₱ ctl, silver; 500 sks choice bay feed, $1.15, gold; 800 do Coast Chevalier, $1.20, half silver; 400 do very dark do, $1.05, silver; 200 sks Coast feed, $1.10, silver; 240 do do $1.12½, silver.

Beans—Beans are unchanged.

Buckwheat—Buckwheat is in good supply. The price is $1.50 ₱ ctl.

Corn—Prices for corn are within last week's range. We note sales during the week as follows: 100 sks Large White, slightly mixed, $1.08¾; 300 do Large White, $1.10; 400 ctls Large Yellow, $1.10; 250 sks do, $1.10; 450 sks Large Yellow at $1.07½; 200 do do, $1.10; 350 do mixed, $1.07½; 400 sks Small Yellow at $1 15; 100 do do, $1.20 per ctl, all lots silver.

Dairy Produce—The Dairy market is wholly without new features and prices now prevailing may be found in our tables.

Eggs—Eggs are weaker, though sales are made at last week's figures. Duck Eggs are scarce and sell at 40@44c.

Feed.—Ground Feeds show an advancing tendency. Bran is now quotable at $17, and Middlings at $25 per ton. Hay is unchanged. The following sales are noted: 25 tons good Barley and Oat at $14; 12 do good Wheat and Oat at $14.15; 28 tons ordinary, $11. Choice Wheat is quotable at $16.

Fruit—Limes are still a condemned article, and sales have been made as low as $3 per thousand. This matter is referred to in an editorial elsewhere. Strawberries are farther advanced, now quotable at $15 per crate. Grapes have fallen again. Pears and Apples have gained a little for choice selections.

Hops—There is nothing new in the Hop Market. The stock is still held above buyers' views. Current sales in a small way are made at a compromise, 20@26c being the range.

Oats—Oats are firm and prices have advanced beyond our last quotations. We note sales: 1,000 sks good Feed at $1.75; 200 sks fair Feed, $1.52½; 220 do do, $1.63¾; 240 sks ordinary coast. $1.52½; 400 sks Milling at $1.85 per ctl.

Onions—Onions have continued to improve, but the receipts, owing to the late advance, have been heavy and the situation to-day is wavering. There have been sales at 85@90c, with choice selections at $1 per ctl.

Potatoes—The receipts are still heavy and the Potatoes show a considerable range in quality. Poor lots are sold at any price, sometimes as low as 30c per ctl. Sales of Pajaro at 50@80c; Sacramento River, 50@62½c; Halfmoon Bay, Tomales and Petalnma, 60@85c. The ruling price for Sweet Potatoes is 50c per ctl.

Poultry and Game—Poultry exhibits some fluctuations which are shown in our tables below. Turkeys are higher, owing to the Thanksgiving damand. Venison has advanced to 10c per pound.

Provisions—The general features of the trade remain as last noted.

Rye—Rye has sold at better figures. Sales have been made of 140 sks at $1.62½, gold. Holders now place their mark at $1.70.

Vegetables—A few trifling changes are made in our tables below.

Wheat—The market is active and excited, and a sharp advance has been attained. The following sales for the week show the improved figures: 1,000 tons choice Shipping at $2; 200 do Milling at $2.05; 200 tons Milling, $2.05; 800 sks Superfine, $1.80; 1,200 sks Shipping, $2.07½; 1,200 do Milling, $2.12½; 100 tons do, $2.10. A rumor is current that a dealer sold 15,000 tons choice Shipping, on Saturday, at 2.02½. 7,000 sks Shipping, $2; 4,000 do choice Milling, $2.05. A choice lot of 1,200 sks Milling sold on 'Change this morning at $2.10. At Stockton, $2 has been paid for Shipping, equal to $2.07½ here. 2,000 ctls common Shipping at $1.85; 10,000 do choice do, to a shipper, from warehouse, $2; 4,000 sks fair Shipping, $1.90; 5,100 do choice Milling, in two lots, $2; 4,000 sks choice Milling, private; 1,700 do do, $2; 13,400 do choice Shipping, $2; 8,000 do choice Proper, to a Shipper, $2; 3,600 sks choice Shipping, $1.95; 2,300 do good Milling, $1.95; 2,000 sks choice Milling, $2; 600 do good Shipping, $1.95 per ctl. The French bark Emilie, for Cadiz, Spain, carried 25,515 ctls, valued at $47,000. This is the first shipment to that port this season.

Wool—The Wool market exhibits no new features. The Eastern markets by telegraph are given in another column.

DOMESTIC PRODUCE.

[WHOLESALE.]

Tuesday, M., Nov. 28, 1876.

BEANS.

Bayo, ₱ ctl	2 50	@	2 00
Butter	1 50	@	2 00
Pea	2 00	@	—
Red	2 75	@	3 00
Pink	2 75	@	3 00
Sm'l white	2 00	@	—
Lima	2 00	@	2 25

BROOM CORN.

Common, ₱ lb	2	@	2½
Choice, do	3	@	4

COTTON.

Cotton, ₱ lb	15	@	18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll ₱ lb	30	@	45
Point Reyes	47½	@	—
Pickle Roll	30	@	—
Firkin	25	@	30
West'n Reserve	16	@	25
New York	—	@	—

CHEESE.

Cheese, Cal., lb	10	@	15
do Old	—	@	—
Eastern	12½	@	15

EGGS.

Cal. fresh ₱ doz	45	@	47½
Ducks'	43	@	44
Oregon	40	@	42½
Eastern	21	@	30

FEED.

Bran, per ton	17 00	@	—
Corn Meal	27 50	@	—
Hay	10 00	@	16 00
Middlings	25 00	@	—
Oil cake meal	—	@	33 50
Straw, ₱ bale	60	@	72½

FLOUR.

Extra ₱ bbl	6 50	@	6 87½
Superfine	5	@	5 25
Graham, ₱ bbl	4 75	@	5 00

FRESH MEAT.

Beef 1st quality lb	4½	@	6
Second do	3½	@	4½
Third do	2½	@	3½
Mutton	4½	@	5
Pork, undressed	6	@	6½
do, dressed	8¾	@	8¾
Veal	5½	@	6
Milk Calves	7	@	8½

GRAIN, ETC.

Barley, feed ctl	1 10	@	1 12½
do brewing	1 15	@	1 25
Chevalier	1 25	@	1 40
Corn, White	1 05	@	1 10
do Yellow	1 05	@	1 10
Oats	1 60	@	1 85
Milling	1 90	@	1 95
Rye	1 60	@	1 62½
Wheat shipping	1 95	@	2 00
do milling	2 10	@	2 15

HIDES.

Hides, dry	18	@	18½
do wet salted	7	@	7½

HONEY, ETC.

Beeswax, per lb	25	@	27½
Honey in comb	10	@	12½
do Strained	6	@	8

HOPS.

New crop	25	@	28

NUTS—Jobbing.

Almonds, shl'd lb	8	@	—
do, soft sh'l	14	@	16
Brazil do	14	@	16
Cal. Walnuts	9	@	10
Chile Walnuts	11	@	12½
Pecannts	17	@	18
Peanuts per lb	8	@	9
Filberts	15	@	16

ONIONS.

Union City ctl	80	@	90
Stockton	65	@	80

POTATOES.

Petalnma, ₱ ctl	60	@	75
Salt Lake	—	@	—
Humboldt	—	@	—
Half Moon Bay	60	@	85
Coffey Cove	—	@	1 00
Early Rose new	60	@	75
Sweet	50	@	62½

POULTRY & GAME.

Hens, per dz	7 50	@	8 50
Roosters	5 00	@	7 00
Broilers	4 00	@	5 00
Ducks, tame, dz	7 00	@	9 00
Geese, per pair	1 75	@	2 00
Wild Gray dz	2 00	@	2 50
White	—	@	1 50
Turkeys, Liva, lb	18	@	20
do Dressed	17	@	21
Quail, per doz	1 50	@	1 75
Snipe, Eng., doz	—	@	1 25
Doves, per dozen	50	@	57
Rabbits	1 00	@	1 25
Hare, per doz	2 00	@	2 50
Venison lb	—	@	10

PROVISIONS.

Cal. Bacon, L't, lb	15½	@	16½
do Medium	14½	@	15
do Heavy	—	@	15
Lard	13½	@	15½
Cal. Smoked Beef	10	@	11
Eastern do	—	@	—
East'n Shonld's	—	@	12
Hams, Cal	14½	@	15
do Armour	—	@	—
do Worster's	—	@	—
do Dupee's	19	@	19½
do Davis Bros'	—	@	19

SEEDS.

Alfalfa, Chile lb	9	@	14
do California	15	@	17
Canary	10	@	12½
Clover Red	—	@	22
do White	50	@	55
Cotton	6	@	10
Flaxseed	—	@	3½
Hemp	12½	@	—
Italian Rye Grass	25	@	30
Perennial do	20	@	30
Millet	10	@	12
Mustard, white	8	@	10
do. Brown	3½	@	4
Rape	4	@	5
Ky. Blue Grass	30	@	—
do 2d quality	29	@	—
Sweet Vernal Grass	—	@	75
Orchard do	30	@	35
Red Top do	—	@	25
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	20	@	25
Timothy	11	@	10½

TALLOW.

Crude, ₱ lb	6¼	@	6½
Refined	8¾	@	9

WOOL, ETC.

FALL—			
Free	12	@	14
Choice	14	@	16
Northern	17	@	21
Burry	10	@	16
Oregon Eastern	20	@	—
do Valley	25	@	—

LUMBER.

CARGO PRICES OF REDWOOD.

Rough, ₱ M	$18 00
Rough refuse, ₱ M	14 00
Rough clear, ₱ M	30 00
Rough clear refuse, M	20 00
Rustic, ₱ M	32 50
Rustic, refuse, ₱ M	22 50
Surfaced, ₱ M	30 00
Surfaced refuse, ₱ M	20 00
Flooring, ₱ M	28 00
Flooring, refuse, ₱ M	18 00
Beaded flooring, ₱ M	30 00
Beaded floor, refuse, M	20 00
Half-inch Siding, M	20 00
Half-inch siding, ref. M	16 00
Half-inch, Surfaced, M	25 00
Half-inch Surf. ref., M	20 00
Half-inch Battens, M	20 50
Pickets, rough, ₱ M	1 00
Pickets, rough, p'ntd	13 00
Pickets, fancy, p'ntd	26 00
Shingles, ₱ M	35 00

PUGET SOUND PINE—Retail Price.

Rough, ₱ M	22 50
Fencing, ₱ M	22 50
Flooring and Step, ₱ M	32 50
Flooring, narrow, ₱ M	35 00
Flooring, 2d quality, M	25
Laths, ₱ M	3 50
Furring, ₱ lineal ft	—¾

REDWOOD—Retail.

Rough, ₱ M	22 50
Rough refuse, ₱ M	18 00
Rough Pickets, ₱ M	18 00
Rough Pickets, p'd, M	20
Fancy Pickets, ₱ M	30
Siding, ₱ M	25 00
Surfaced and Long Beaded	37 50
Flooring	35 00
Do do refuse, ₱ M	25 00
Half-inch surfaced, M	32 50
Rustic, No. 1, ₱ M	40 00
Battens, lineal foot	—¾
Shingles ₱ M	3c

Gold, Legal Tenders, Exchange, Etc

[Corrected Weekly by Sutro & Co.]

San Francisco, Nov. 28, 3 P. M.

Legal Tenders in S. F., 11 A. M., 91¾ to 92¼. Silver 67¼@7.

Gold in N. Y., 109¾.

Gold Bars, 880 to 890. Silver Bars, 12@20 per cent. discount.

Exchange on N.Y., 50@55-100 par cent. premium for gold; on London bankers, 49; Commercial, 49¾; Paris, five francs per dollar; Mexican dollars, 6 per cent. discount.

London — Consols, 96⅜; Bonds, 102¼

Quicksilver in S. F., by the flask, par lb, 55c.

GENERAL MERCHANDISE.

WHOLESALE.

Tuesday, M., Nov. 28, 1876.

BAGS.

Eng. Stand Wht	9½	@	10
Neville & Co's			
Hand Sewed, 22x36	9½	@	10
24x36	10½	@	11½
23x40	11	@	12
Machine do 22x36	9½	@	10½
Flour Sacks ⅛s	9	@	11
" " ¼s	6	@	7
" " ½s	4½	@	5
Hessian 60-in	11½	@	12
do 45-in	9½	@	10
do 40-in	8½	@	9
Wool Sacks, 3½ lbs	45	@	50
do 4 "	50	@	52½
Stand. Gunnies	11½	@	12
Bean Bags	7	@	8

CANNED GOODS.

Asst'd Pie Fruits in 2½ lb cans	2 75	@	3 00
do Table do	3 75	@	4 25
Jams & Jellies	4 25	@	—
Pickles ½ gl	—	@	3 50
Sardines, qr box	1 65	@	1 90
do hf boxes	3 00	@	—

COAL—Jobbing.

Australian, ₱ ton	8 00	@	8 25
Coos Bay	—	@	9 00
Bellingham Bay	—	@	9 00
Seattle	—	@	9 00
Cumberl'd	14 00	@	16 00
Mt. Diablo	5 75	@	7 75
Lehigh	—	@	22 00
Liverpool	8 50	@	10 00
West Hartlay	—	@	14 00
Scotch	9 00	@	10 00
Scranton	13 00	@	16 00
Vancouver's Isl	10 50	@	12 00
Charcoal, ₱ sk	75	@	—
Coke, ₱ bbl	—	@	60

COFFEE.

Sandwich Island	—	@	21½
Costa Rica per lb	21	@	—
Guatemala	20½	@	21½
Java	—	@	23
Manilla	20	@	21
Ground in oils	25	@	—
Chicory	27	@	—

FISH.

Sac. Dry Cod, new	5	@	5½
oases	6	@	7
do bonaless	8½	@	10
Eastern Cod	8	@	8½
Salmon in bbls	6 50	@	7 25
do ½ bbls	3 75	@	4 00
do 2 lb cans	2 65	@	—
do 1 lb cans	1 80	@	—
do Col. R. ½ lb	4 25	@	4 50
Pick. Cod, bbls	22 00	@	—
do ½ bbls	11 00	@	—
Mack'l, No. 1, ½ bbl	11 00	@	—
" extra	—	@	12 00
" in kits	1 12½	@	2 25
" Extra mess	3 50	@	4 00
" Ex mess, ½ bs	—	@	12 00
Pio'd Herr'g, bx	3 00	@	3 50
Bos'n Sm'k'd Her'g	40	@	50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl	2 00	@	2 25
Cement, Rosendale, do	2 75	@	3 50
do Portland do	4 75	@	5 50
Plaster, Golden Gate Mills	3 00	@	3 25
Laod Plaster, ₱ ton	10 00	@	12 50

MISCELLANEOUS.

Pulu	—	@	7½

NAILS.

Assorted size, keg	3 25	@	4 00

OILS.

Pacific Glue Co Neat F't No. 1	1 00	@	90
Pure	—	@	—
Castor Oil, No. 1	1 25	@	—
Baker's A A	—	@	1 10
Olive Plagniol	4 85	@	5 00
do Possel	4 45	@	4 50
Palm lb	9	@	—
Linseed, raw	—	@	65
do boiled	—	@	70
Cocoanut	—	@	60
China nut in oils	—	@	70
Sperm	2 00	@	—
Coast Whales	60	@	65
Polar, refined	—	@	60
Lard	1 15	@	1 17½
Oleophine	—	@	37
Devoe's Bril't	38	@	39
Nonpariel	42½	@	—
Eureka	34½	@	38
Barrel kerosene	32½	@	—
Downer Karoae'e	45	@	—
Elaine	—	@	42

PAINTS.

Pure White Lead	9¾	@	10¼
Whiting	—	@	1¾
Putty	4	@	5
Chalk	—	@	1½
Paris White	—	@	2½
Ochre	—	@	3½
Venetian Red	—	@	3½
Averill Chemical Paint, per gal. White & tints	2 00	@	2 40
Green, Blue & Ch Yellow	3 00	@	3 50
Light Red	3 00	@	3 50
Metallic Roof	1 30	@	1 60

RICE.

China No. 1	5¾	@	6
Hawaiian, ₱ lb	7	@	—
Carolina, ₱ lb	10	@	

SALT.

Cal. Bay, per ton	10 00	@	14 00
do Common	5 00	@	7 00
Carmen Island	12 00	@	15 00
Liverpool fine	13 50	@	16 50

SOAP.

Castile ₱ lb	10	@	10½
Common brands	4½	@	6
Fancy do	7	@	8

CANDLES.

Grant's	16	@	16½
Mitchell's	18	@	20

SPICES.

Cloves ₱ lb	45	@	47½
Cassia	23½	@	26½
Citron	28	@	30
Nutmeg	95	@	97½
Whole Pepper	14½	@	14½
Pimento	16	@	17½
Gr'nd Allsp'ce	—	@	12
do Cassia do	—	@	50
do Cloves do	—	@	50
do Mustard do	—	@	50
do Ginger do	—	@	00
do Pepper do	—	@	00
do Mace do	—	@	00
Bowen's Pure Ground ₱ lb	—	@	50

SUGAR, ETC.

Cal. Cube per lb	—	@	13½
Circle A crushed	—	@	13½
Powdered	—	@	13⅜
Fine crushed	—	@	13½
Granulated	—	@	13
Golden C	—	@	11½
Hawaiian	10	@	11
Cal. Syrup in kgs	—	@	72½
Hawaiian Molasses	25	@	27½

TEA.

Oolong, Canton, lb	19	@	25
do Amoy	28	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	40
do Pingsuey	45	@	80
do Moynne	60	@	1 00
Gunpo'der, Cant.	75	@	1 00
do Pingsuey	50	@	90
do Moynne	55	@	1 25
Y'ng Hy., Canton	28	@	40
do Pingsuey	40	@	70
do Moynne	65	@	85
Japan, ½ chests, bulk	30	@	75
Japan, lacquered bxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb bxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ & 1 lb paper	30	@	55

TURPENTINE.

Eastern	50	@	55

FRUITS AND VEGETABLES.

[WHOLESALE.]

Tuesday M., Nov. 28, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M	25 00	@	30 00
Tahiti, do	30 00	@	35 00
Cal. do	—	@	—
Limes, ₱ M	3 00	@	10 00
Cal. ₱ 100	2 00	@	2 50
do Sicily ₱ box	11 00	@	12 00
Bananas, ₱ bnch	1 50	@	4 00
Ooocoannts, ₱ 100	5 00	@	6 00
Pineapples, ₱ dz	—	@	—
Apples, ₱ box	50	@	1 50
Blackberries cs	—	@	—
Cherries ₱ lb	—	@	—
Figs	4	@	5
Gooseberries	—	@	—
Huckleberries	—	@	—
Strawber's ₱ cs	—	@	15 00
Pomgranates	—	@	—
Raspberries	—	@	—
Currants, ₱ cs	—	@	—
Cranberries bbl	14 00	@	15 00
Peaches, ₱ lb	5	@	9
Pears, ₱ box	75	@	2 00
Crab apples, ₱ lb	2	@	3
Grapes ₱ box	40	@	50
Rose of Peru	50	@	75
Muscat	75	@	1 00
Black Hamburg	50	@	75
Tokay	75	@	1 00
Quinces, box	75	@	1 00

DRIED FRUIT.

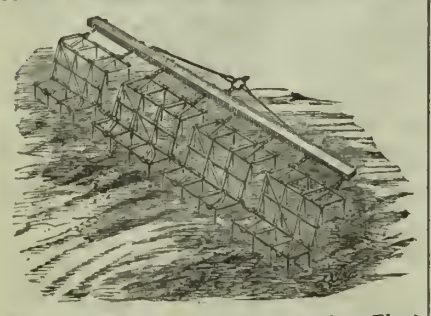
Apples, ₱ lb	4½	@	6
Pears, ₱ lb	7	@	9
Peaches, ₱ lb	7	@	9
Apricots, ₱ lb	10	@	12½
Plums, ₱ lb	3	@	4
Pitted, do ₱ lb	—	@	13
Raisins, imported	3 25	@	3 75
Cal. Raisins box	1 50	@	2 75
Black Figs, ₱ lb	4	@	5
White, do	12½	@	15
Prunes	12½	@	17
Citron	28	@	30
Zante Currants	9	@	10

VEGETABLES.

Asparagus ₱ lb	—	@	—
Beets ₱ ctl	—	@	60
Cabbage, ₱ 100 lbs	50	@	60
Carrots, ₱ 100 lbs	50	@	62½
C

Agricultural Articles.

IRON SECTIONAL HARROW.



This Harrow was Awarded the First Premium at the California State Fair in 1875.

The undersigned, having purchased the patent right of this Harrow for California, are now manufacturing them in Roseville, Placer County, and would call the attention of Farmers to the superior merits of this Harrow over all others now in use.

As its name indicates, it is made in sections of about three feet in width, each section having four bars, in which the teeth are inserted, and by connecting the sections with links, the Harrow is formed.

Should a farmer require a Harrow upon his farm to do all kinds of work, he should purchase six sections, which would be suitable for four horses, and would cut 18 feet in width; by disconnecting two sections he will have a two or three-horse Harrow, cutting about 13 feet. One section alone is complete in itself, and suitable for garden work, with one horse. The Harrows are made of the best quality of iron, and with teeth warranted to be steel.

We give a few of the many reasons why we claim superiority for these Harrows over all others in use on this Coast:

First - By the lightness of draft, taking into consideration the amount of work it does.

Second—By working uneven or rolling ground just as well and as evenly as if it was entirely level.

Third—They are made of Iron and Steel, and therefore are not affected at all by sun or rain, or by heat and cold; they are always tight, and ready for use; they are also durable. A farmer purchasing one has a Harrow that will last a life time.

Fourth—The teeth being fastened with a nut and screw into the cross bars, should one break, another can be inserted in a moment. We are making three sizes, all being the same in width, but different in depth and weight only.

Prices, from $12.50 *to* $15.00 *per Section.*

All orders sent to

BREWSTER & CO.,
Roseville, Placer Co.,

Will be promptly attended to, and satisfaction guaranteed in all cases.

CAUTION.

It has come to our notice that certain parties are now making this Harrow in this State, and that several of them have been sent here from the East. Now this is to *caution* all persons against making, selling or buying them, so made and offered for sale, as we shall enforce our rights in relation to the matter, and would call the attention of all persons infringing upon our patent, to the *law* in regard to it.

BREWSTER & CO.,

Roseville, July 15th, 1876.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



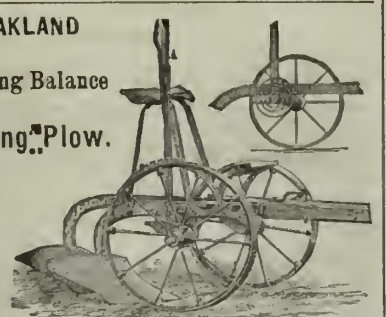
GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

OAKLAND Spring Balance Gang Plow.



Patented and manufactured by H. N. Dalton, at the Pacheco Agricultural Implement Works, Pacheco, Cal. Established in 1858. Send for Circular and Pricelist.

TRADE MARK.



CALVERT'S CARBOLIC

SHEEP WASH,

$2 Per Gallon.

After dipping the Sheep, is useful for Preserving Wet Hides, Destroying the Vine Pest, and for Disinfecting Purposes, Etc.

T. W. JACKSON, S. F., Sole Agent for California and Nevada.

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Incorporated Feb. 10th, 1875. Capital Stock, $1,000,000.

OFFICERS and DIRECTORS:

DANIEL INMAN, (President). AMOS ADAMS, (Secretary), THOS. FLINT.
R. C HAILE, (Vice President). THOS. UPTON. G. P. KELLOGG.
JOHN LEWELLING, (Treasurer). I. C. STEELE. W. L. OVERHISER.
O. HUBBELL. D. CAMPBELL.

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We do a strictly Commission Business, and place our rates of Commission upon a fair legitimate basis that will enable the country at large to transact business through us to their entire satisfaction.

Consignments to be marked Grangers' Business Association, San Francisco. Stencils for marking will be furnished free on application.

DANIEL INMAN, Manager.

CALIFORNIA FARMERS' MUTUAL

Fire Insurance Association,

No. 38 California Street,

(GRANGERS' BUILDING,)

SAN FRANCISCO, CAL

Capital..... ..... $200,000 00
Assets, October 15, 1876..... 268,716 52

MUTUAL PLAN.

	AMOUNT.	PREMIUMS.
Risks written to Oct. 1, '76...	$5,181,591.00	$114,445.57
Less Amount Canceled.....	360,644.00	6,297.50
Amount in force, Oct. 1, '76..	$4,880,947.00	$108,148.07
Losses paid.....	$7,251.00	

CASH PLAN.

	AMOUNT.	PREMIUMS.
Risks written to Oct. 1, '76...	$2,585,914.19	$51 606.96
Less Canceled and Expired...	976,908 00	$19,538.16
Amount in force, Oct. 1, '76...	$1,609,006 19	$32,068.80
Losses paid.....	$10,153.71	

OFFICERS.

J. D. BLANCHAR..... .....PRESIDENT
I. G. GARDNER.....VICE-PRESIDENT
G. P. KELLOGG.....TREASURER
A. W. THOMPSON.....ATTORNEY
FERD. K. RULE.....SECRETARY

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Uriah Wood.....San Benito
A. B Nally.....Santa Rosa
A. W. Thompson.....San Francisco
A. D. Logan.....Colusa
I. C. Steele.....San Mateo
G. W. Colby.....Butte County
A. Wolf.....Stockton
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CAUTION.

To Farmers and all others who put Barbs upon Wire Fences, Making a Barbed Wire Fence, and to all Manufacturers and Dealers in Fence Barbs and Barbed Fence Wire.

You are hereby notified, that in putting barbs upon wire, making a barbed wire fence, or in using or dealing in barbs or barbed fence wire, not made under license from us, you are infringing upon our patents, and we shall hold you strictly accountable for damages for all infringements of Letters Patent, Nos. 66,182, 67 117, 74 379, 84,062, 153,965, 157.124, 157,508, 164,181, 173,667; re-issues, Nos. 7,136, 6,976, 6,902, 7,035, 7,036, 6,913, 6,914, and other patents. Copies of our claims can be obtained of our attorneys, Coburn and Thacher, Chicago, Ill., or of our counsel, Thos. H. Dodge, Worcester, Mass.

WASHBURN & MOEN MANUF'G CO., Worcester, Mass.
I. L. ELLWOOD & CO., De Kalb, Ill.,

Sole owners and manufactnrers, to whom orders for Barb Fence or for Loose Barbs should be addressed.

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Second year of issue. Greatly enlarged and improved. Contains 72 pages of useful matter; The Constitution and By-laws of the Order; Rules for Subordinate Granges; Decisions of the National Body; Declaration of Purposes; Rules of Order in the Grange; Origin and Object of the Grange, etc. Also, many useful and correct rules, tables, etc., for weighing, measuring and calculating the contents of timber, lumber, land, boxes, cribs, etc, besides *accurate* calendar pages for all parts of the Union. In short, it is an indispensable companion for every Patron or farmer in the Pacific as well as in the Atlantic States. Price, by mail, postpaid: Single copies, 10 cents; 12 copies, 75 cents; 18 copies for $1.00; 24 copies, $1.25; 100 copies, $5.00. Address,

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One Farm, containing 280 acres of choice valley hill land, good house, barn, granary, etc., and well fenced. Price, $7,000.

One farm adjoining of 100 acres; good house, barn and outbuildings, young orchard—well watered; Cache creek, a never failing clear mountain stream, running through both farms. Price, $3,000.

Also, **Town Lots in Capay**, soon to be the center of trade and railroad depot for the western and northwestern portion of the county, and also for the quicksilver mines of Lake and Napa counties. Price, $50 to $150 per lot.

TERMS:

One-Half Cash. Balance Secured by Mortgage.

J. W. ALDRICH, Capay, Yolo Co.

FOR SALE,

In Lots to Suit,

5,000 Acres of the Lake Vineyard Land and Water Association.

These lands are in the great fruit belt of Los Angeles County,—only six miles from the city are peculiarly adapted to semi-tropical fruits, and adjoin the famous Lake Vineyard of Hon. B. D. Wilson. The Southern Pacific railroad runs through the land; convenient to schoolhouse and church; water in abundance, and the water-right is sold with the land. Title perfect. A Map of the tract may be seen at the office of Mayor Beaudry, on Spring street, opposite City Council rooms. References may be made to Hon. B. D. WILSON or J. DE BARTH SHORB, at Lake Vineyard, who will take pleasure in showing the lands. Also, to Mayor BEAUDRY or D. FREEMAN, Los Angeles city.

FOR SALE,

A Dairy Farm,

Containing 300 acres, on the old road leading from Auburn to Sacramento, in Placer county, seven miles south of Auburn and four miles east of C. P. R. R.; 12 acres of the best alfalfa in the county on it sown last spring, and 40 tons of alfalfa cut off it this summer, and with irrigating it good next summer it will cut 80 tons, and have a feed crop next fall two feet high, and plenty more land on the farm just as good as that is for alfalfa. For further particulars, address by letter,

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W. B. WEST, Proprietor.

FRUIT AND ORNAMENTAL TREES, EVERGREENS,

Shrubs and Greenhouse Plants.

Comprising everything NEW and RARE in my line.

SPECIALTIES:

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I have imported superior Figs and Raisin Grapes direct from the place of their nativity in Europe, and having propagated large quantities, can now offer them to the trade and the public on the

Most Reasonable Terms.

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STRATTON'S GUM TREE FOREST NURSERY,

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These trees are from five to twelve inches high, transplanted regularly into boxes 30x20 inches square, weighing 150 pounds. 150 or 500 in each box, in splendid condition for transplanting to their permanent location. Price, $6 to $12 per 1,000. Will contract to plant the trees, or furnish superintendence, on low terms. Cash must accompany orders for less than $50, or if greater than that amount, city reference must be given. Address,

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Authorized Capital, $5,000,000.

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Wholesale and Retail Optician,



IMPORTER OF OPTICAL GOODS,
No. 135 Montgomery Street, near Bush,
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Sportsmen, Tourists and Pleasure Seekers are invited to examine our celebrated Tourists' Glasses, which, for power and durability, are unequaled.

SPECTACLES—Their adaptation to the various conditions of sight has been my specialty for upwards of 30 years. Send for **Muller's Pebble Spectacles.** Directions and Price List Mailed Free. Orders by mail receive prompt attention. Goods forwarded per Wells, Fargo & Co., C. O. D. (subject to approval.)

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PETER SAXE, Importer, at Commercial Hotel.
San Francisco, Nov. 14th, 1876.

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(PERKINS' PATENT)

Self-Regulating, Farm Pumping, Railroad and Power



WINDMILLS,

Pumps & Fixtures,

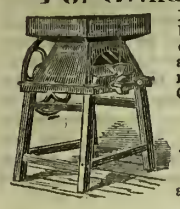
Have been in use on the Pacific Coast in the towns and farming districts for over four years, and wherever they have been sold (and there are thousands of them out) they are doing their work as well as when put up. A careful perusal of our Circulars gives a fair representation of them and shows their simplicity.

We are prepared to fill orders [illegible] from a PUMPING MILL to a 24-foot POWER MILL for running Machinery, as well as doing the pumping.

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For Grinding Barley, Etc.,



Equally as commendable, has now been tested to entire satisfaction of all, and meets the demand for an article of that kind that has not been supplied on the Pacific Coast heretofore.

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For New Buildings.

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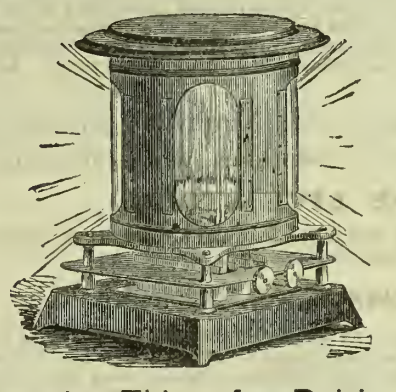
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COAL-OIL STOVES

For Cooking and Heating.



Just the Thing for Dairies.

NO SMOKE, NO SMELL,

And Warranted Perfectly Safe.

Consumes two Quarts of Oil in 12 Hours.

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Patent Riveted

Clothing,

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These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

Patented May 12, 1873.

USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

Stockton, Cal.

H. K. CUMMINGS. 1858. H. H. BALATON. 1876.

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Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

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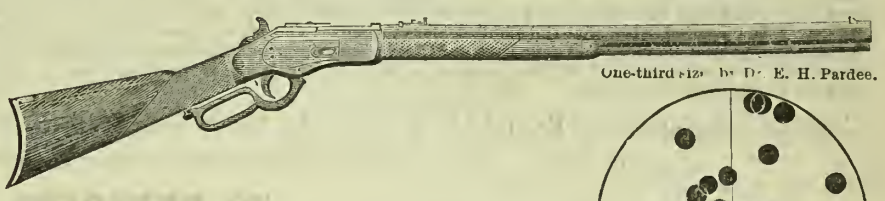
Our business being exclusively Commission, we have no interests that will conflict with those of the producer

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Winchester Repeating Rifle.

MODEL 1873.



One-third size by Dr. E. H. Pardee.



String measuring from center of target to center of each shot, 32¾ inches. Average distance of each shot, 1 9-100 inches.

The Strength of all Its Parts,

The Simplicity of Its Construction,

The Rapidity of Its Fire,

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The Impossibility of Accident in Loading,

Commends it to the attention of all who use a Rifle, either for Hunting Defense, or Target Shooting.

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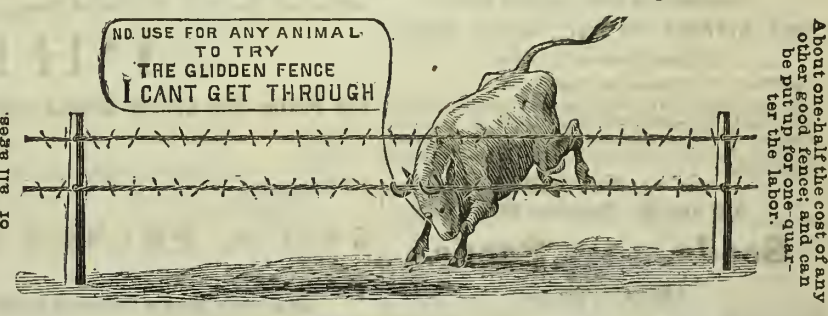
Round barrels, plain and set, 24 inch—blued. Octagon barrel, plain, 24 inch—blued. Octagon barrel, set, 24, 26, 28, 30 inch—blued. Octagon barrel, set extra heavy, 24, 26, 28, 30 inch—blued. Octagon barrel, set 24, 26, 28, 30—extra finished case hardened and check stocks. Octagon barrel, set extra heavy, 24, 26, 28, 30 inch—extra finished—C. H. & C. S. Octagon barrel, set, 24, 26, 28, 30 inch. Beautifully finished. C. H. and C. S. Known as "One of One Thousand." Octagon barrel, set, gold, silver and nickel plated and engraved. Carbines blued, also gold, silver and nickel plated. Military rifle muskets, model 1873. Rifles, muskets and carbines, model 1866. **Reloading Tools, Primers and Parts of Arms.**

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BULL'S HEAD STOCK YARDS,

Cor. Ninth, Howard & Tenth Streets, San Francisco.

IMPORTANT INFORMATION THAT CONCERNS YOU.

HAVING SECURED A LEASE, FOR A TERM OF YEARS, OF THE PLOT OF LAND BOUNDED BY NINTH STREET, HOWARD STREET AND TENTH STREET, I OPENED OCTOBER 15TH, 1876, THE ABOVE STOCK YARDS, OR WHAT IS CALLED IN ENGLAND A TATTERSALLS, FOR THE RECEIPT, SHIPMENT AND SALE OF HORSES, SHEEP, CATTLE, PIGS, ETC., CONDUCTED ON THE "LIVE AND LET LIVE" PRINCIPLES OF EASTERN STOCK YARDS.



An experience of six years shipping stock—being one of the firm of Saxe Bros., importers and dealers in over 10,000 head of Thoroughbred Sheep, Cattle, Horses and Pigs—makes me fully acquainted with the system of shipping, receiving, selling and disposing of live stock in the stock yards of Chicago, St. Louis, Cincinnati, Buffalo and Albany, and their manner of doing a large business, at a fair price, with entire satisfaction to all. It has been a question with many why a Bull's Head Market has never been started in this city; and, in conversation with many business men on the Pacific Slope, as well as the East, many of whom are large purchasers, as well as breeders and sellers, the question has been asked me "Saxe, with your acquaintance throughout the Pacific Slope, why don't you start one?" As I intend no more, on my own account, to import thoroughbred Sheep, Cattle or Pigs, believing now that our Coast can supply the demand from its increase, I am prepared now to start these yards. The first great duty to be attended to is a good location, plenty of room, and last, but not least, a moderate rent. These I have secured. When completed these yards will have some 300 stalls, besides 60 box stalls and plenty of shed room and corrals. I start a regular Bull's Head Market, where you can consign your stock for sale, or delivery to other parties or places, with dispatch; where you can come and sell the same yourself, or consign with instructions for me to sell, at a moderate commission; where you can come to sell or go to purchase. And I hope, by strict attention to business, and an honest effort to do right by both purchaser and seller, to merit your confidence. I desire all dealers, all breeders and all purchasers who have live-stock business, to make the Bull's Head Stock Yards their headquarters. Have your letters addressed there when in the city. You will find desks in the office at your disposal, gratis, all the Eastern papers, with quotations of live stock, both blooded and common. I shall purchase Hay and Grain by the quantity, and sell it out to feed in the yards at a fair profit. Stall room will be moderate, and all feed for stock on the ground must come through me. Water free, of course. I desire to keep the yards full, and be liberal. "Live and Let Live" shall be my motto. One afternoon in each week will be a sale day, where an auction will be held for anything that pertains to Horses, Carriages, Harness, Cattle, Sheep or other live stock. I intend, also, to make the Bull's Head Market a place where any one, on any day, can sell whatever he may have in the above line. Many business men will attend such that could not go 10 to 40 miles in the country; and I feel assured that better prices will be realized than if sold in the country, expecting purchasers to go on excursion trains. I feel assured, also, that the small dealers in Horses and Milch Cows in the city, who have hired small lots, and who have to pay rent whether they have stock on hand or not, can better afford to give them up and save their rent, keep the commission and give me the feed bill. My terms will be strictly cash for feed bills, before removal of the stock. After a few weeks, when fully in working order, I will be prepared to make an advance of 10 to 25 per cent. on stock in my possession or consigned to me. In conclusion, I would make these remarks to shippers of Beef Cattle, Sheep and Hogs:

Consign your stock to ROLLIN P. SAXE, Bull's Head Stock Yards, Cor. Ninth and Howard streets. Give me full instructions what to do. It costs only a moment of time to write a dozen lines, which may save a misunderstanding.

TO BREEDERS OF LIVE STOCK.

Write me your P. O. address, what bloods you are breeding, where you got your first stock, and your lowest and highest prices, and how many you have, so I may know what to write purchasers. Also, if you have grades, and what ages, and the lowest price for them, single or in large numbers.

TO PURCHASERS.

Write me what you want, and fully, and I will—from breeders—give you the range in prices, and tell you all the facts. I will assist Eastern shippers to dispose of stock, and will also continue to import Horses myself from the East, both on my own account and on orders. All are invited to make my office their headquarters. The latest stock journals will be found always on file. I believe "blood will tell." I am opposed to no one, but intend to "paddle my own canoe"—thoroughbred fashion—with respect for all and fear of none. I believe "honesty the best policy," and to "be sure you are right, then go ahead." I believe I am right, and have started. Asking you for your good will and fellowship, and that courtesy which is due from one thoroughbred to another, I remain, yours, faithfully,

ROLLIN P. SAXE,

Proprietor of the BULL'S HEAD STOCK YARDS, Feed Stables and Tattersalls,

Orego & Bowley, Auctioneers.] Office, Cor. Ninth & Howard Streets, San Francisco.

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Long Red Mangel Wurzel, Yellow Globe, White Sugar — Beet Seed.

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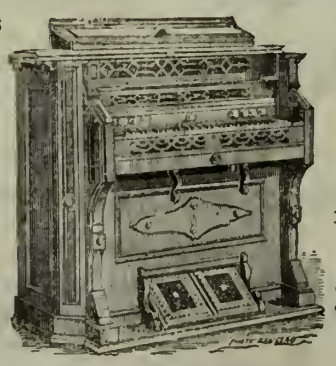
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Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, ETC.

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PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, DECEMBER 9, 1876. [Number 24.

Home-Made Persian Powder.

We are led to the subject of "Persian powder" by several considerations. First, is the wicked flea whom every man pursueth. Second, is the thought of the rapid increase of insects injurious to vegetation in this State. Third, is information concerning the plant used to manufacture that famous insecticide known to commerce as "Persian powder."

We read in an account of travels published in a recent number of *Littell's Living Age* as follows: "Our road towards Gravosa lay through a country bright with almond and orange blossoms. One crop, of which we saw many fields, excited our particular attention. It consisted of a yellow-flowered plant, creeping thickly and closely over the ground, and we were told that this constituted the principal article of commerce of Ragusa, and was the far-famed "Persian insect-destroying powder," which is principally grown on the shores of Dalmatia. It can be purchased at wholesale prices, and requires to be used in wholesale quantities, if you travel in the interior."

"Almonds and orange blossoms and home-made flea powder! What higher ideal of perfection in a country! and this ecstacy lies within the reach of California. From an article which a botanist writes for the Lancaster *Farmer* we are put in possession of such accurate information concerning this priceless plant, that we have but to secure the seed and proceed with the extermination of every evil insect which the State possesses. We read as follows: "*Pyrethrum carneum* is the plant of which the celebrated Persian powder, for the destruction of insects, is prepared—introduced in France 1850, brought exclusively from districts in Persia and the Caucasus. It is now cultivated. It is stated that the amount of this powder annually used in Russia alone is about 500 tons! Just think of it! The parts used to make this powder are the dried flower heads, gathered when ripe, on fine days, and dried by exposure to the sun. In drying they lose about 90 per cent. When perfectly dried they are reduced to powder. The powder should be preserved in sealed vessels of glass. The application is either made as a powder or as an infusion; the infusion is deemed the best for destroying insects. The smell seems to attract and stupefy them to death. The powder, when used, should be kept dry, or blown with a bellows over vines and plants infested by aphids, leaf-hopper larvæ and the like.

"The principal insects to which the powder of the *Pyrethrum* is destructive may be arranged under four classes: first, insects injurious to agriculture and horticulture; second, insects obnoxious to man and his habitation; third, insects destructive to certain substances, as wool, furs, feathers; and fourth, insects injurious to museums of animal and vegetable products, and collections of natural history."

The point which calls up this subject in Pennsylvania is the resemblance of the *Pyrethrum carneum* to the *Pyrethrum vulgare*, the botanical name for the white or ox-eye daisy, which is the pest of farmers in the Eastern and Middle States. The thought arises that if there is so much resemblance between the plants why could not Persian powder be made of the too-common ox-eye daisy, and thus a curse be made a blessing? This question is of little importance to us, for, so far as we know, there is no growth of the ox eye daisy here; at least, not to the extent which it rules Eastern hay-fields. It is quite certain, however, that there is no use for us to import Persian powder to kill our insects, human and horticultural, but rather grow it and spread it abroad where it will do most good

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Irrigation and Canal Company Election. At the annual meeting of the stockholders of the San Joaquin and Kings River canal and irrigation company, held in S. F., Tuesday afternoon, the following trustees were duly elected: J. Mora Moss, I. Friedlander, John Bensley, Wm. S. Chapman, Jas. D. Walker, E. F. Northam and Chas. Baum. The trustees then elected the following officers: President, J. Mora Moss; vice-president, I. Friedlander; secretary and treasurer, Frank L. Palmer.

Broad Winged Buzzard.

The usual range of the broad winged hawk (depicted on this page) seldom extends far west of the Alleghany mountains; but in Virginia, Maryland and the States eastward it is by no means a rare species. Its nest is about the size of that of the common crow and is usually placed on large branches, and near the stem or trunk of the tree, being composed, exteraally, of dry sticks and briers, and internally, of



THE BROAD-WINGED BUZZARD.

numerous small roots, and is lined with the large feathers of the common fowl and other birds.

The flight of this hawk is easy and performed in circles. When high in the air, it often closes its wings for a moment, and glides gracefully along. It seldom pursues other birds of prey, but is itself frequently teased by the little sparrow hawk, the king bird, or the martin. It attacks birds of weak nature, particularly very young chickens and ducklings, and during winter feeds on insects and various small animals. Except during the winter season, it flies singly. After eating, it rests for hours upon the top of a small tree within the forest. Like other birds of its tribe, when wounded, it throws itself on its back, opens its hill, protrudes its tongue, utters a hissing sound, erects the top feathers of its head, and with its talons grasps any object presented to it, insomuch that it may be carried by means of a stick thus clutched as long as its muscular power continues.

The American Journal of Microscopy.—The experiment of a magazine wholly devoted to microscopic study and literature has proved a success. The publication which we have named above has completed its first volume. It has begun in a small way to be sure, charging but 50 cents a year, but even a child of this size has taught the oldest scientific magazine in this country a lesson, and exploded what seems to have been a deliberate fraud perpetrated through its colums in name and form of science. We refer to the so-claimed discovery of one "Prof. Wilson" that silica in the shape of diatoms entered from the soil to the straw of grain, and on the strength of this claim endeavored to swindle the farmers of the country by selling them diatomaceous fertilizers. This swindle was exposed by the *American Journal of Microscopy* and it has earned the honor which its vigorous youth now bears in scientific circles.

Capt. A. H. Bogardus, the champion wing shot of the world, has arrived in this city.

More Stanislaus Raisins.

We are in possession of further evidence concerning the raisin resources of Stanislaus county. Pentland Brothers, of Knight's Ferry, send us a box of their produot with the following note: "The box was taken from a lot prepared for San Francisco, and is a fair representation of the fruit we are shipping. These boxes are manufactured by G. W. Hale, of Columbia, Tuolumne county. We have made somewhere in the neighborhood of 30,000 pounds of raisins this season."

The package is very neat and the raisins nestle beneath a tastefnl covertlid bearing the impress "Buena Vista Vineyard." The raisins are fully up to the standard of the best lots which are now in this market. If we lay aside Mr. Blowers, who has outdone all his competitors in the way of handsome packing and labeling, we find these raisins coming forward in a form superior to many and equal to all.

We suppose our friends in Stanislaus will not object to a friendly comparison of their product, for although comparisons are odious, it is by them that nearly all judgments are formed. We notice then that by comparison of the two samples of raisins we have received from Stanislaus county, we decide that the Red Mountain vineyard raisins excel the Buena Vista in the matter of uniform large size and even color of berries, whereas, the Buena Vista is superior in rich flavor and seems more fully cured. This distinction we acknowledge is finely drawn and the commendable marketable quality of both samples is very apparent. There is needed no better evidence than we have before us of the adaptability of some parts of Stanislaus county to the production of fine raisins.

Rye.

There is note of diversification creeping in upon the great wheat fields of the interior. We read in the Stockton *Independent* that the cultivation of rye upon land exhausted by a repetition of wheat crops is yearly becoming more general in the San Joaquin valley and throughout the State. When sown in the fall or early winter it makes an excellent feed for stock for several months, and after taking the stock off it will make a good vigorous growth, coming to maturity as well as though it had never been fed down. As a matured crop upon which to turn hogs for fattening it is said to be far better than oats, and as it will yield largely upon land too poor to prodnce a paying crop of wheat, it is a very desirable crop as a change in rotation. The principal drawback to its general cultivation is the lack of a market for any great quantity of it. The American people will not eat bread made of rye flour as the poorer classes in Europe do, who have found that rye bread is not only cheap but nutritious, but they must have the best quality of bolted, silk dressed wheat flour for their bread. However, those who have tried rye as ground feed for horses, mixed in with straw, consider it equal, if not superior to oats or barley, and it should find a ready consumption on the farm. Rye straw is more valuable for commercial purposes than wheat straw, as it grows long, strong and slender, and in the East is used extensively for bonnet plaiting, paper making, etc.

Heavy Purchase of Horses.—The New York *Sun* says: "Saturday morning, November 25th, Governor Stanford, of California, stepped into Charles Blackman's breeding establishment. Stanford, after looking the horses well over, picked out 13, asked the price, and then said: 'I will take the lot.' The 13 came to $41,200. The highest single price, $12,500, was paid for Electioneer, an eight-year-old bay stallion, by Rysdick's Hambletonian; dam, Green Mountain Maid, the dam of Prosper. Mr. Blackman made Governor Stanford a present of three yearling fillies. The stock is bought for the Governor's 18,000-acre breeding farm at Palo Alto, California."

The British troop-ship *St. Lawrence*, with soldiers for Cape Town, was totally wrecked off the coast of Africa. The troops are all safe. A large quantity of military stores were lost.

CORRESPONDENCE.

Agriculture in England.

EDITORS PRESS:—I will make no spology to your subscribers for taking up a portion of your superior journsl in giving them snd you a talk about agricultural matters in England, for I know, or at lesst I imsgine, that a few notes from the old country, now and again, will interest some amongst you, and I hope will be displeasing to none. I am very much plessed with the tone of your paper throughout, and much of its subject matter is interesting to me, hence I may not impertinently come to the conclusion that if California matters are interesting to an Englishman, so English may be to Californians. I am quite awsre thst there is but little in common betweeu English and Cslifornian modes of farming, mainly owing to the great difference of climste in the two countries, wbich admits of land being treated in a totally different wsy in one from whst it is in the other. There are other differences too, almost equally important with that of climste; suoh as tbe prioe of your land, with its adaptability to certsin orops which cannot flourish in this country, all of which go to make a great difference between your farming and ours; nevertheless, to tell you a little of what we are doing here may while away a few of your leisure mo. ments.

British Dairy Farmers' Association.

I am glad to learn from your paper that you have recently established a dairymen's association for Californis, and that Mr. Wickson is secretsry for the same, for he will, from his experience in the Eastern States, be able to promote the success of your association. I believe it is a matter quite beyond question that the American dairymen's association, and other kindred ones, have done very great good to dairying, and that, in fact, the immense improvement which has taken place in American cheese in the past 12 years is mainly, if not entirely owing to the efforts of those associations, and not only have they improved cheese very much, but they have a strong influence for good in various brsnches of agriculture. For some time we have been agitating tbe formation of a British dairymen's association, snd at length we hsve succeeded. Our association, however, is termed "The British Dairy Farmer's Association." The word "dairymen" was struck out because in this country it is not usually applied to any class of men except those who sell milk in our cities.

A Dairy Show

Was held in the Agricultural hall, London, on the 24th to the 27th of October, aud ou this occasion our Dairy Farmer's Association was well and worthily established. In future we expect to act in concert with the dairy show, and probably to hold our annual conventions in connection with it. We shal be mutually serviceable to esch other.

The dairy show is for the exhibition of practical dairy stock—rent-paying milkers. Fancy Short Horns, with pedigrees as long as your arm, and worth $5,000 to $20,000 apiece, are not expected at the show, and, in fact, would be intruders there. What we want to encourage, through the medium of the show, is the breeding of thoroughly good deep-milkers, suitable also for fattening when the milking capacity begins to fail—such cows, in fact, as will prove to be most profitable for dairy farmers who have rent to pay. The tendency in England in recent years has been to produce heavy, fleshy cows, milk being regarded as of secondary importance, and this tendency, as we all know, has been carried to excess, heuce we must go back some on milk.

The show also includes cheese and butter, roots and grain, dairy utensils and appliances, from a skimming dish to a chnrn, and from a milking psil to a cheese press. The cheese classes include the various kinds of cheese for which England has long been celebrated; there was Stilton, Leicester, single and double Gloucester, Derbyshire, Cheshire, Cheddar, etc. In most of the classes in which it was exhibited the Cheddar carried off the bulk of the prizes, proving that it is the best system, generally speaking, on which cheese can be made, while from the fact of its hsving taken root to a greater or less extent in most of our dairying districts it is evidently better adapted than any other system to various soils and climates. In two separate classes the prizes for tbe best three dsiry cows were one hundred gnineas in each class. The prizes for cheese and butter were also good, and there were medsls awarded to the best collections of dsiry utensils.

Changes in English Dairying.

Tbe British Dairy Farmers' Association has arisen ont of the factory system of cheesemaking, which was introduced iuto this country seven years ago. This, at all events, may be regarded as the *point d'appui* of the agitation, which has at length led to its formation. The factory system, thongh, has not extended very far in England, and, indeed, it never will. I must tell you why. It is not because the system has been a failure; far from that. Indeed, the cheese made in our factories is far above the average of thst made in farm houses. But the reason is this: Since the adulteration sets came into force in this oountry, the consumption of milk in our cities and towns hss enormously increased. Our urban populstion can now depend on getting a fairly genuine article when they ssk for milk. Formerly, it was next to impossible to get good milk in our towns, and the people took as little of it as possible. But now, being able to get it good, they use it freely for many purposes from which it was erstwhile scrupulously excluded. Our legislstors did a great snd good thing in passing those acts. A plentiful supply of pure milk to our cities will go far to restore the pbysical s amins of the people, and do much in the way of prolonging snd improving human life. Thus it has come to pass that the demand for fresh milk has opened up a new and most important industry for our dairy farmers. A wonderful quantity of milk is daily sent loug distsnces by rsil from the country to the cities and towns. London draws her supplies, in some cases, from districts considerably more than 100 miles sway, aud so in proportion do our other large towns. The consequence of this is that there is now very much less cheese made in England tban was the case 20 years ago. And another cause which has di iuished the production of cheese is the growing of increased quantities of beef and muttou. Now, my opiniou is, that in course of time not far distant, owing to the increased demand for fresh milk, for beef and mutton and for butter, there will be very little cheese made in England. Thus the demand for American cheese must continue to increase. You cannot seud us fresh milk at all, and you cannot conveniently send beef and mutton; hence, it follows that we must devote ourselves to the production of these, and depend on you for bread snd cheese.

Decrease of Grain Production.

We cannot for a moment think of competing profitably against you in wheat growing, so far as the wheat itself is concerned. Your climate is immensely superior to ours for growiug grain of superior quality, though I think you cannot touch us in beef and mutton. You bave a virgin soil, too, which is au immense advantage to you, so long as it lasts. Still, you cannot so soon exhaust the productiveness of your soil as we can. Your climate, simply, restores fertility to it much quicker than ours does. But the price of straw in this country ekes out into a small profit what wonld otherwise be a positive loss in wheat growing. Wheat straw is worth from £4 to £6 a ton, or from $20 to $30 in your money. Our recent agricultural returns for the year 1875-76 show a marked increase in land laid dowu to permanent pasture, and of course, a corresponding decrease in land devoted to grain raising. Our farmers are aware that they cannot compete with you in grain, so they are gradually relinquishing the contest. Land is being laid down to permanent grass; such of it, that is, as is fit for that purpose, (we bave land in England, you know, that must be kept under the plow, or it would be next to valueless). Our farmers are turning their attention to stock raising, and to producing milk, beef and mutton, instead of grain; and they increase the fertility of their pasture land by consuming with their fattening stock, large quantities of feeding stuffs, and by supplementing top-dressing of artificial manure.

J. P. SHELDON.

Sheen, Ashbourne, Derbyshire, Nov., 1876.

[We had the pleasure of printing correspondence from Mr. Sheldon's pen when we were engaged upon the Utica *Herald*, in New York State, and we know him as a skillful writer and accurate observer. He is also a farmer of enterprising and progressive spirit, for he wss the leader in the movement to establish cheese factories on the American plan in England. We are plessed to welcome him to the list of our correspondents. We sball soon print a letter from him on the subjeot of the Grange movement in Englaud.—EDS. PRESS.]

Mendocino County.

EDITORS PRESS:—As yet we have had but a few beavy frosts. One uight a little ice formed. Grain and grass are doing finely and the hills are as green as is usual in February.

An immense amount of seeding is being done, and two weeks more of our present weather will insure the sowing of the bulk of our arable land. Our rains have been very seasonable and sufficient for all purposes. In September we had five-thirty-seconds of an inch. October, five and twenty-thirty-secouds. November, three-fourths of an inch. Streams are not yet running, except in the hills, but the ground is wet a foot deep aud more. Some grouud is full wet enough for plowing, where it was cultivated through the summer. A good mast of acorns has carried our sheep and hogs well through the fall, and everything now indicates a prosperous season for Mendocino county.

Several fine ranches are for sale here, consequent on death or change of business, and profit awaits the emigrant who gets them. Our wool brought 20@21c here this fall, and is conceded to be the best in the State. This is due to some peculiarity of the climste snd soil, which also tells on our hops, which sre equally prominent in the msrket for quality.

The RURAL PRESS meets with a strong and hesrty approval among even those who were never before considered reading individuals; and, ss one ssid the other dsy, "I could not get along without it!" "So mote it be," always.

Let me suggest that in your market reports thst you never drop an article of produce with the simple sentence, "Msrket quiet snd unchsnged; buyers holding off for more favorsble terms; holders firm." It is very unsatisfactory to the reader, ss he must then hunt up last week's issue, or perhaps two or three bsok numbers, to ascertain the price of the article he is interested in. Give us the price in figures and let the psst alone. A. O. C.

Ukiah, Nov. 26th, 1876.

We hope our correspondent will find leisure to give us frequent notes from his county. We do not think the county figures ss largely in the papers, sgrioulturally, as it should, and we shall be pleased to hear more of it. In regard to the suggestion about market reports, we csn ssy thst the prices for articles of produce are given in the tsbles, which are corrected each week. In our comments we aim to note the features of trade which could not be given in the tables of prices. Where we have sales reported we give them. Wbere there is only a general disposition of trade to note we give that. The quotation which our correspondent makes, taken in connection with the price which follows in the tables, makes the showing for the article complete. "The price in figures," which our correspondent rightly prizes so highly, will be found each week in its regular place.—EDS. PRESS.

The Value of Agricultural Papers.

EDITORS PRESS:—Althongh neither farmer nor rancher, I still take a decided interest in all matters pertsining to the welfare of both classes. And when I can offer my advice or do any good, no matter how little, willingly do I come forward to perform the service. One tbing especially has been impressed upon my mind very forcibly, and that is the evident lack of success among tbose who fail to avsil themselves of the experience of others. My observations amonfg the farmers and ranchers of California lead me to believe that it is almost a necessity for success that they read agricultural papers. I find that out of a dozen who do not subscribe, but two or three only will succeed, while of the same number subscribing, perhaps an average of 10 will prosper.

Agricultural papers are intended for the pnrpose of conveying to the farmer or rancher such knowledge as will enable tbem to avoid mistakes, and consequently smooth their pathway to independence. The experience of hundreds contained in those papers certainly tends towards the success of the steady reader and thinker, and in the end will make life smoother, pleasanter and consequently happier. A farmer certainly cannot be a happy msn if he continues to make the same mistakes year after year, not knowing how to correct them and as a consequence growing poorer day by day, aud harassed by debts and the knowledge that his life is a bitter struggle with adversity.

I would advise *every one* of our tillers of soil aud raisers of stock to subscribe for not only one agricultural paper, but for as many as they can conveniently study, aud when they have accumulated a sufficient uumber, have them bound and properly indexed and they will ever after prove most valuable references. The expense attending the subscription and binding will be immaterial compared with the incalculable profit derived from the knowledge obtsined from the papers. Something new is to be learned from them all tbe time and the earlier it is learned the better. C. F. T.

There can be nothing truer than the points which our correspondent makes above. In an industry like agriculture, the success of wbich depends so much upon the employment of the very best means and practices, no man can succeed by his own unaided effort as he can if he possesses himself of the experience of hundreds of his fellow men who are working to solve the same vexed problems whioh come before him for solution. As a true agricultural newspaper is continually reflecting the teachings of experience gained by thousands of workers, it is au agency well fitted to increase success and advance prosperity. The experiences of others are valuable, not only for wbat they tesoh directly, but for what they suggest; not only for what tbey advise to do, but for what they advise not to do. And as we speak thus of the work in which we ourselves are engaged, it is in no arrogant spirit, but rather in the humblest rejoicing that by our efforts the truth of science and the best practice may sbine through us upon the noble workers on our farming lands. It is true that there is strength iu a united effort for intelligence and information, and the true agricultural paper is the exponent of such an effort.—EDS. PRESS.

A Century Plant in Bloom.

EDITORS PRESS:—Enclosed you find a stereoscopic photograph of the flower stslk of a century plant growing on the grounds and nesr the residence of F. E. Hihn, Esq., of Santa Cruz. The photograph wss taken by J. E. D. Baldwin, and at his request I send it you. The plant was set out by its present owner about 1857-58. The present flower stalk began its growth in June last, and continued its ascent so rapidly thst by September it had attained the bight (as wss estimated,) of over 40 feet. It projected some lateral flower branches about four feet from the ground and where the csnceolates had attained their hights, then grew smooth to abont 18 teet from the ground, whence the brsnches on all sll sides of tbe stalk continue to its top. These branches sre about five feet long snd two inches in diameter, until towsrds the top, when they are sborter and smalter. Nesr tbe ends of these branches are laterals, the ends of which, as well as those of the main branches, were covered with yellow flowers. This flower stalk is now (November 27th,) 12 inches and over in diameter, five feet from the ground. Its flowers have changed into seed pods of about three inches in length and one inch in dismeter. C. N. W.

[The photograph gives a very good view of the plant and flower stalk. The record of the plant's growth given by our correspondent agrees very closely with our observations on a plant which has flowered in this city this season.—EDS. PRESS.]

Oregon Flour and Oil Mills.

Albany.

The Magnolia flouring mills at Albany are in a prosperous oondition, and are a great convenience to the good folk of Albany. The mill is 50x80 on the ground, but they require the use of a large warohouso 40x80, of the capacity of 125,000 bushels. The grain is brought to this mill from a distance of 20 miles. There are 15 hands employed, and the mills turn out 1,500 bushels a day. The Calapoye and Santa Anna supply the water to two turbines, one a 48-inch, and the other 26-inch; together equal to some 100-horse power. This mill was put up in 1851 at a cost of $45,000. The names of the first owuers were Hale, Driggs, Crawford, Monteith and Althouse.

There is yet another fine mill here, called the Albany City mills. This mill is 40x120 ou tho ground snd three stories high. There are three rnn of burr stones. The capacity of the mill is 200 barrels in 24 hours.

In Salem

There is a splendid flour mill 140x60 on the ground. This is one of the finest I have yet visited—built in the most substantial manner. They have nine run of French burr stones. In 24 hours they turn out 550 bbls. Two Leffell turbines run the works, having a power equal to 180-horse power. Tbirty hands are employed. Eighty thousand dollars were expended in building this mill. It belongs to the Salem flour mills company, of which A. W. Kinney is President and W. S. Kinney Secretary.

The Pioneer oil company has Joseph Colman for President and George P. Holman for agent. They make a strictly pure article of linseed oil, oil cake and meal. They contract with the farmers of Oregon and Washington Territory for furnishing the seed, which they cultivate and deliver to the mill. Last year tbe amount raised was 100,000 bushels. The flax straw is made into green tow and is used by upholsterers. G.

STOCK BREEDERS.

Breeding for Practical Value.

EDITORS PRESS:—Your criticisms upon what you are pleased to term "a question in stock breeding," on page 324 of your issue of November 11th, indicate that you entirely misnnderstood both the nature snd object of that article. It certainly was not its design to censure any msn or his business, either by intimating thst any business in itself was illegitimate, or if legitimate, it was fraudulently conducted. Of course, here and in that artiole I use the term "legitimate," as well as the term "speculative" in its technical sense, meaning in the former "proper" or "appropriate," in some specified direction, and in the latter, "risk" or "uncertainty," in any paying direction.

What that article meant to say was that Mr. Carr had connected with the ordinary stock raising business, a pursuit so long established and so generally understood, the importation and rearing of fine blooded stock of different breeds for the purpose of selling them for breeding purposes, and that his profits were expected to be derived not merely from the ordinary stock sales of the business, although increased and enhanced by this new direction, but also by the new demand for pure or improved stock which

his ability to supply might incidentally or necessarily create.

Now, what we termed the "speculative character ("risk" or "uncertainty") of the matter exists in this new direction given, or addition to, the old well-known stock business of the State, both in regard to one of its methods of production (importation) and its probabilities of paying, dependent npon sales for purely breeding purposes. We referred to Mr. C. in the attitude of a stock merchant dealing in various kinds of pnre breed cattle, expecting that his far seeing policy and wise investment of capital would not only pay him but also benefit his customers—the general farmer. To all this we did not make any objection, but pointed to the awards bestowed npon his beautiful cattle, as an evidence of the worthiness of his investments, and the value of his efforts as a public benefactor.

This was one of the views presented in the article and the other (for only two were intended) was one which your reporter had often nrged upon their attention and discussed with the farmers of all these valleys, that they should improve their stock, for milk and heef, by hreeding to pure blood in some direction. We had most generally been met with the answer, that it would not pay the farmer, as the cost of breeding would exceed the increased value of the improved stock, and that it was all a "speculation," meaning not that it was a fraudulent business in any sense, but that it was a method of making money which did not belong to ordinary farming; that it had no closer relation to true farming than dealing in many kinds of merchandise or huying and selling grain outside of their own productions would have.

In speaking of the awards to Messrs. Abbott, Ford and Robson, we did so as sustaining our views and those of a large number of the farmers who were present at this fair, believing that these awards would give encouragement to an effort in the right direction, and that the two awards were hased upon a nice and proper discrimination hetween the values of the two classes of business — undervaluing neither, commending both.

That both of these views, which you are pleased to call "fine drawn and unnecessary distinctions," are not new, nor singular, we will refer to your own paper for proof. For our own position we will refer to the paper read before the Dairymen's Association by Robt. Ashhurner, as reported in the RURAL PRESS of October 28th, 1876. He says: "In looking over the importations of Short Horns that have been made into this State, how many people do we find who have imported them for their own use, to breed from and use as farmers' cattle, or rent-paying stock? Have not the majority been imported for *speculative purposes? Simply for putting money into the pockets of the importers?*" (The italics are ours.) Now this is strong language—so strong that we, in onr humble position and inexperience, would not dare use it, but refer to it as making the distinctions we have made hetween this stock business and ordinary farming, and simply to jnstify this distinction. That this distinction exists hetween fine stock raising and usual farming, and that the highest good of the former as well as of the latter interest is dependent upon the proper recognition by the agriculturist of the relations and advantages of this stock improvement to the general farmer, we will refer to the RURAL PRESS of August 12th, 1876; on page 107, in Prof. G. E. Morrow's address hefore the Iowa fine stock association, are the following words, which you say "you heartily approve," viz: "The permanent prosperity of the fine stock interest depends on its securing the co-operation of the general farmer." "The best advertisement for a breeder is to show, hy the production of more and hetter heef, or milk, or, by getting more work, that his stock is better and more profitable." In this quotation the distinction we have made is maintained, and the direction these interests should take, as we indicated, is urged.

Your reasonings in regard to Mr. C.'s position as an agriculturist in the sense of ordinary farming—because he raises fine stock to sell to farmers—seems to us, with equal force, to make Mr. Trumhull, and Baker & Hamilton, of your city, agricultnrists in the same sense, because one raises and sells seeds to the farmer and the other furnishes agricultural implements with which to cultivate or harvest those seeds.

C. N. W.

Watsonville, Cal., Nov. 27th, 1876.

[Our correspondent finds in our own words his proof that there is a rule in breeding stock which must he observed before the effort is of much value to the general farmer, and this ought to convince him that so far as he advocates the test of ntility he is in fnll accord with what we have freqnently stated as our position on the subject. The trouble with our correspondent is that when he used the term *speculative*, he employed a word which is common in stock parlance and must be used in a technical sense, unless the writer signifies differently at the time. A "stock speculator" is nnderstood to be a man who runs in a lot of cattle and sells them without any regard to their "usefnl qualities." As we said before, it is not right to nse Mr. Carr as an illustration of this class, and our correspondent now affirms that he did not mean to do so. This is all we insisted upon in our note to which he refers. We should like to hear from Mr. Ashburner on the points made by our correspondent.—EDS. PRESS.]

Food Value of Ox Flesh.

In a paper on this subject, printed in the *Journal of the Chemical Society* of England, the authors, Messrs. J. Leyder and J. Pyro, briefly allude to the work which Lawes and Gilbert have done in showing the modifications which take place in the animal organism during the process of fattening, namely, that the quantity of dry material is notably increased, and that while in oxen in moderately poor condition the water is about two-thirds of its total weight, in a fat ox it is only a half; also, that the more nutritious character and superior taste of the flesh of a fat animal are due to this increase of dry material. Bnt of this increase two-thirds consist in fat; the increase of proteids is only from seven to eight per cent., and of inorganic materials one and one-half per cent.

This relation between the assimilated materials first hecomes perceptible in the last month of the fattening. At the outset the increase in fixed materials is only from 30 to 40 per cent., and according to J. Ruhn the production of a living kilogram costs twice as much at the end of the fattening as it does at the heginning. From a variety of analyses which are given, the flesh of the fat animal in every case is richer in fixed materials than that of the lean animal; and though the flesh of a lean animal possesses a more uniform quality than that of a fat one, yet the poorest parts in the fat one possess a higher nonrishing value than the best in the lean animal:

Lean Cow.

Constituents.	Neck.	Leg.	Paunch.	Loin.
	p. c.	p. c.	p. c.	p. c.
Water	76.49	77.09	77.53	76.58
Fixed material	23.51	22.91	22.47	23.42
Fat	1.28	0.92	0.783	2.62
Muscle substance	21.23	20.99	20.687	19.80
Ash calculated as 1 per cent.	1.00	1.00	1.00	1.00

Fat Ox.

Water	77.97	74.98	76.80	70.60
Fixed material	22.03	25.02	23.20	23.40
Fat	0.95	4.00	4.33	7.96
Muscle substance	20.08	20.02	17.87	20.44
Ash calculated as 1 per cent.	1.00	1.00	1.00	1.00

Very Fat Cow.

Water	76.15	73.26	67.81	67.35
Fixed material	23.85	26.74	32.19	32.65
Fat	2.82	5.76	8.812	12.86
Muscle substance	20.03	19.98	22.378	18.79
Ash calculated as 1 per cent.	1.00	1.00	1.00	1.00

The animals experimented on were a lean 10-year-old cow, a fat 5-year-old Flemish ox, and a very fat 7-year-old Glaner cow. The authors noticed a great loss of weight during the transport of the meat from Brussels to Gembloux—parcels which weighed in Brussels 225.3 grams, weighed in Gembloox only 182.2 grams, indicating a loss of 13.65 per cent. of water. The nitrogen was determined in average samples, and the figures given are the average of two determinations in each. Nitrogen: lean cow, 14.0 per cent.; fat ox, 14 88 per cent.; very fat cow, 15.9 per cent.

What may he learned from the table is that the hest piece (loin) in the fat ox and the very fat cow contains from 21 per cent. to 28 per cent. more fixed material than the corresponding piece in the lean one. The difference in the compositiou of the different pieces of the lean cow is but small; in the piece containing most water (paunch) and that containing least (neck) it is less than five per cent., and curiously enough, the worst piece is richest in fixed material. The flesh of the neck improves but little in valne hy the fattening, hut the flesh of the loin has increased in dried material to a noteworthy extent. The anthors consider the method in England of dividing the food into four classes of corresponding values a good one. If the first be represented by 100, the second would be 74, the third 61, the fourth 42, and while the richer classes pay more highly for the better parts, the poor are enabled to obtain the others at a more reasonable rate.—*N. Y. Tribune.*

THE DAIRY.

Food and Water for Dairy Cows.

Rapid and perfect digestion are all-important in feeding cows in milk. No animal can fatten rapidly or give much milk on food which the stomach has to labor with long and hard. To illustrate: straw and roots are quite similar in the proportions of their nutriment, but a pound of straw contains more than twice as much as a pound of roots. A cow can harely digest straw enough to keep the wheels of life going at a slow rate. She could neither fatten if she was dry, nor give milk without growing poor. But because she can digest ten times as many pounds of roots as she can straw, she can consume enough to support herself and have a surplus left for producing fat or milk.

Green and succulent food is best for milch cows, but the succulence of food should not he in excess. Food containing more than about 70 per cent. of water will produce more milk by evaporating the water in excess of that quantity. Green fodder corn, for instance, which contains from 80 to 85 per cent. of water, will produce more milk by evaporating 10 to 15 per cent. of its moisture. Auother item to regard in the selection of food for milk productiou, is that the digestible elements of food should contain flesh-forming and respiratory matter in the same relative proportions, or as near as may be, as they exist in milk. If there is an excess of either it will he fed at a loss; if a deficiency of either the quantity will diminish. Where proper proportions do not exist they may be regulated by mixing different feeds. Thus fodder corn has an excess of respiratory matter; clover of flesh-forming; by mixing the two hoth are fed more profitably. In grasses these elements are pretty well balanced, so they are in wheat and rye bran and varions other foods. So far as milk is concerned, an excess of albuminoids occasions less loss than an excess of starch, sugar and fat, and a deficiency of albuminoids will also occasion the greater loss. The quantity of milk varies pretty nearly with the snpply of flesh-producing food when other circumstances are equal.

Water is an important article in the diet of any kind of stock. If possihle, it is more so with dairy stock than with any other kind. It constitutes not only abont 70 per cent. of the weight of the entire hody, hut 87 per cent. of the milk secretions. To supply so large an amount of water to the constantly wasting tissues and for the composition of milk, requires free access to it in abundance, at all times, or at comparatively short intervals. In the pasture it is not enough that there is a sluggish pond or ditch of brackish water, nor that a supply may be had if the animal travels a long distance to reach it. The quality of the water affects the health of the cow and the wholesomeness of her milk secretions. Many impurities will at once show their presence in the diseased condition of the cow and in the deteriorated quality of her flow of milk.

And the accessibility of water is of no small degree of importance. Cattle will travel long distances to get it, before they will die of thirst, but they will often delay the journey and get excessively thirsty before performing it; in consequence, when they reach the water, they injure themselves hy an excessive draft, drinking until they feel not only uncomfortable but actually suffer, for some time, from a slow fever.

Of course, every dairyman must be governed by circumstances in regard to water, as in other matters, but if he cannot provide all the best facilities and conditions for watering his stock, his aim shonld be to approximate them as nearly as possible by every reasonable care and expense of time and money. Ofteu, only a little foresight and energy is all that will he needed to provide every requisite. As an illustration of the importance of having water accessible iu summer and of the effect of inaccessibility on the flow of the milk, I will give a fact in my own experience: When I lived in Herkimer county, my cows ran in a pasture which usually had a good supply of water on the hill or plateau on which they did most of their grazing. Occasionally this water would dry up for a while, and the cows be compelled to make an extra journey of 60 or 80 rods, into a deep gully to get drink. On every such occasion I at once noticed a shrinkage of fully ten per cent. in their flow of milk, besides a marked deterioration in quality.—*L. B. Arnold, in American Dairying.*

Stable the Milch Cows.

To those who have had experience in milking cows during the winter season, and have noticed the great difference in the quantity of milk given hy cows provided with good warm stables and those that are compelled to live in the open air, the advice conveyed in the heading of this article is unnecessary. But of those milking cows in this State, comparatively few have any cover or any protection whatever for the cows they milk, and consequently are not able to estimate the loss they are sustaining by neglecting to provide such protection from the weather. We have, it is true, comparatively mild and favorable weather during our winter or wet seasons, and our stock exposed to our winter weather suffers but little compared to the suffering endured by stock exposed to the winter weather in the same latitude on the Atlantic slope. This, however, is no reason why we should not consult the comfort of our domestic animals and our own pecuniary interest in the care we hestow upon them. "The merciful man is merciful to his beast," is an old and true proverb, and it applies to California climate as well as it did to the climate in which it was originally promulgated. The man who can save a fellow-man suffering and pain, without bringing pain and suffering or inconveuience to himself or his, and does not, must he counted a cruel human being, and the man who can save a dumb beast pain and suffering, and neglects to do so when the merciful act would cause himself no inconvenience, is no less a cruel human heing—the difference heing only in degree. The dumh beast is just as much subject to physical suffering as is man, and the Creator of all living things is just as tender of or merciful to the one as the other. It becomes our duty, therefore, to protect from pain and suffering any living thing that we have the control of or exercise ownership over. But we did not intend to preach a sermon on morality or cruelty to animals, but only to show more particularly how much more money can be made from milch cows if they are kept in a good warm stable nights and stormy weather, during the winter season, than if they are compelled to lie on the cold, wet ground through the cold, frosty nights and stormy weather of our winter season.

We keep cows, and milk them, as we keep all other domestic animals, because we expect to make money out of the operation, and we are neglectful of our own interest if we do not so keep or manage them as to make the most money. In the first place then, in order to make a cow give a good quantity of milk, of good rich quality, she must be supplied with a plenty of milk-producing food. The man who would feed his cow oat or wheat hay at a cost of $16 a ton, when he could buy alfalfa hay for $12 per ton, containing just as much nutriment or life-sustaining ingredients, and 20 per cent. more milk-making substances, would not be counted a good manager. Nor would he be a good manager who, having the alfalfa hay, should feed it so negligently to his cows that they would waste from 25 to 50 per cent. of it. It is a very plain proposition that cows thus wasting their food in the eating of it could not return so much profit to their owner within 25 or 50 per cent. as they would if so fed that none would be wasted. Is it not an eqnally plain proposition that if, owing to exposnre to cold nights and stormy weather, it requires 25 to 50 per cent. of the food actually eaten to keep the system up to a natural degree of heat, the profits will be reduced from 25 to 50 per cent.? It really makes no difference whether the food be wasted before eaten or after, in the final result. While we are not able at present to state from actual experiment that cows stabled and fed a certain quantity of food of a given quality will give their owner results 25 per cent. better than those not stahled and fed the same quantity and quality of food, we are fully satisfied, from observation, that snch is the case. This being the true standard of comparison, it requires but a little knowledge of figures to show the great advantage there is in stabling the milch cows during the winter season, even in this State.—*Record Union.*

THE SWINE YARD.

Experimental Pig Feeding.

Although it is a good many years since the enterprising Mr. J. B. Lawes, of Rothamsted, Herts., carried ont his experiments in pig feeding, yet the results obtained were so important to farmers, and applying as they do with just as much force at the present day as they did when first pnblished, some reference to them will not be uninteresting. Mr. Lawes published the result of his experiments in the *Journal* of the Royal agricultural society, and the article, a most elaborate one, attracted a good deal of uotice among scientific agriculturists at the time. Mr. Lawes took, as the hasis of his experiments, equal weights of hran and lentils, bran and Indian corn. Particnlar care was observed in weighing the quantity of food meted out to each pig, all of which were weighed every 14 days. The experiments were commenced with 40 animals, all being ahoat the same age—ten months. Mr. Lawes endeavored, as far as possible, to secnre pigs possessing outwardly the same characteristics, so as to make the effects of the different foods become at once apparent. They were divided into a dozen pens of three pigs each. The following is a

List of the Feeds Allowed:

Pen 1.—Bean and lentil mixture, an unlimited allowance.

Pen 2.—Two pounds of Indian corn per pig per day, and unlimited allowance of beans and lentils.

Pen 3.—Two pounds of bran per pig per day, and an unlimited allowance of beans and lentils.

Pen 4.—Two pounds of Indian corn, two pounds of bran, and an unlimited allowance of beans and lentils.

Pen 5.—Indian corn alone nnlimited.

Pen 6.—Two pounds of beans and lentils, and an unlimited allowance of Indian corn.

Pen 7.—Two pounds of bran per day, and an nnlimited allowance of Indian corn.

Pen 8.—Two pounds of beans and lentils mixed, two pounds of bran, and an unlimited allowance of Indian corn.

Pen 9.—Two pounds of bran and lentils mixed, and an unlimited allowance of bran.

Pen 10.—Two pounds of Indian cornmeal, and an unlimited allowance of bran.

Pen 11.—Two pounds of heans and lentils mixed, two pounds of Indian corn, and an unlimited quantity of bran.

Pen 12.—Beans and lentils mixed, Indian cornmeal and hran, each separately and unlimited.

Treatment.

The pigs received their food the first thing in the morning, again at noon, and 5 o'clock in the evening. The food, which was limited as to allowance, was mixed with a small quantity of that given *ad libitum* in the first two feeds of the day, the whole being, of course, mixed with water. At the outset, two of the pigs in one of the pens contracted some disease in their necks, which began to swell considerahly. This was met by a remedy at once simple and effective. Twenty pounds of finely-sifted coal ashes, four pounds of common salt, and one pound of super-phosphate of lime were mixed together, and placed in the troughs of the ailing porkers. The pigs, Mr. Lawes relates, ate the mixture with great avidity, and shortly after the swelling of the neck subsided, and entirely disappeared in ahout six weeks. Three sets of pigs, each divided into 12 pens of three pigs each, were set apart for

Three Series of Experiments,

With the various quantities of food. In one series barley meal was snhstitnted for Indian corn, and in the third series a trial of dried Newfoundland codfish was made in connection with other foods. The fish was boiled, and

Continued on Page 386.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is in Davis street, north-east corner of California.

Grange Directory.—A full list of Subordinate Granges, Masters and Secretaries, of California and Nevada, is published as often as once a quarter in this department. See issue of Sept. 23d for latest insertion

P. of H.—Subscribers who pay fully one year ($4) in advance for the Pacific Rural Press can receive the California Patron *free*, or other premiums. See our premium list in another column.

Annual Address of Worthy Master, National Grange.

The following is the annual address of W. M., John T. Jones, delivered before the National Grange, which convened in Chicago, November 15th, 1876:

Brothers and Sisters of the National Grange: Under the requirements of our Constitution, we are again convened in annual session, to consider and take such action in the great interests of the class we represent as may appear expedient for the advancement of their prosperity, and, as a consequence, the prosperity of our country, and for the good of our Order.

The feeling of enthusiasm with which you have heretofore been greeted from this chair, on like occasions, experiences no abatement, but receives new force from year to year with the increase of our membership, power and good works. If we shall build our superstructure in harmony with, and in just proportions to the broad and substantial foundations we have laid, we shall have cause of deeper, of immeasurable gratitude to Him who has sustained us so far in our work, and permitted us to meet again, with our ranks unbroken, to labor in this glorious cause.

I observe but few changes in this body since our first grand parliament at St. Louis, and have the happiness to know that the brothers and sisters representing the Order on that occasion, who are not here in the same capacity, are yet active laborers in our field.

We cordially extend to their successors here a fraternal welcome.

I shall briefly allude to such matters as I deem expedient to call your attention to, referring you to the reports of the executive committee, secretary and treasurer, for details of the business in their respective departments, and for the general progress of our work.

At the last session of this body several important

Amendments to the Constitution

Were proposed, and subsequently ratified by the State Granges, of which proclamation was duly made.

While I am impressed with the evil of frequent and needless changes in our Constitution and laws, experience has confirmed my conviction that some further changes are expedient. Prominent among these is the necessity of so amending Section 2, of the Constitution, under the head of Organization, as to preserve that unity and symmetry in our Grange system which had characterized it before the adoption of this section, and which is so essential to its harmonious and efficient working. In providing for the establishment of Pomona Granges, "under such regulations as may be established by State Granges," instead of placing them upon the same footing as other Granges in their organization and government, we have not only marred the harmony and beauty of our system, but greatly impaired the efficiency of this valuable link in our chain of Granges.

Co-operation.

At the same session a set of "rules for Patrons' co-operative associations," were submitted to the National Grange and "recommended to the Patrons throughout the country."

As a part of the system and plan of the organization and government of the co-operative societies of Great Britain, which it was our purpose to adopt, these rules, with some slight changes, will be most valuable, but taken alone they are a disjointed link in a chain, the perfection of which by our British friends has been the work of their educated, thinking, practical men, for the last 35 years. The fraction which we have given our Order has been utilized to an extent which we can only conjecture. Hundreds, and it may be thousands, of co-operative stores have been established in the various States and Territories of the Union, with various amounts of share capital, and perhaps as various in other features and in their fortunes. They are without a head or connecting link, "like so many islands in the sea, without even a boat plying from one to the other," without that principle of unity which is the life of co-operation and the guiding star of humanity.

Contrast this chaos and ignorance with the admirable and intelligent system we would follow. I have before me, on a single sheet, a bird's-eye view of 400 co-operative societies in the United Kingdom; giving of each the name, location, number of members, purchases from wholesale during the year, quarterly, half-yearly and annual sales in each department of trade, share capital, reserve fund, buildings and fixed stock for trade purposes, rate of dividend per pound sterling, amount of dividend declared to members, and amount devoted to education. On the same sheet is a bird's-eye view of co-operation in England and Wales, compiled from the Government returns, showing the financial progress and position of the co-operative movement during the past seven years. With such information, their co-operative congress, the head of this system, acts intelligently. Without it, they could take no safe action affecting their subordinate organizations.

With the perfection of our system of organization, is the necessity of educating our members in the true principles of co-operation. Let us follow the example of our English friends in this also. Through their courtesy I have received a large number of tracts, with the proceedings of their co-operative congress from 1868 to the present time, making a most valuable collection of co-operative literature. We have to reach the minds of many who are ignorant, and to stimulate in them a thirst for knowledge. The latter, which is the first requisite, is better accomplished by living missionaries. If we could send out some of the friends of co-operation, (who could be named,) to act as pioneers in this work, we would soon see a large demand for co-operative intelligence.

It may be thought by some who take a solely sentimental view of our organization, that I am giving an undue prominence to its material objects. If so, I cannot think they have studied the deep philosophy, pure morality, lofty virtue, and genuine religion that underlies co-operative life. Rightly understood it is the practical realization of Christian ethics. The silent virtues of temperance, forethought, just dealing and fellowship in work, will do more to correct the moral disorders which darken our land, and have tainted our government, as well as trade and commerce, than all the penal statutes that have been or can be devised. The material, moral, social and intellectual influences are in near connection with each other. The most material things have great influence on mental subjects, a sentiment that ages ago the poet Homer gave vent to, in saying that "When man becomes a slave he loses half his virtue." [We reserve for next week's Press that part of the Worthy Master's address which refers to "International Co-operation." —Eds. Press.]

The Grange in Great Brilain.

By your action at the last session upon the report of the Committee on Foreign Relations, and the resolutions following the report, I felt warranted in commissioning Brother Wright as Deputy, to present our Order to the farmers of Great Britain, and to organize Granges in the United Kingdom if desired.

I refer you to his report for his work in this connection, only adding that many letters received from men of high character and position in that country, assure me of the very able manner in which he presented the principles, purposes and claims of our Order, and of favorable impressions made by his efforts. He gave his time for months in the negotiations and other services referred to as a free-will offering to our Order, which has been so near his heart from its infancy, and I only ask your approval of the sums for which I have drawn upon the treasury to pay his necessary expenses while laboring for these objects.

Upon his recommendation I appointed J. P. Sheldon, Esq., of Sheen, Ashbourne, England, a Deputy for that country, whose letters I present to you for his suggestions and fraternal greeting. When recently at Philadelphia, I appointed M. Charles M. Lamousiu, with whom I had been in correspondence, a Deputy for France. He is one of the most eminent co-operators in France, visiting this country on a mission of inquiry on the part of the French government into the condition of the working population here. My correspondence with him is also submitted, from which you will see the favorable prospects of our Order spreading in France, and the desire of that people to form a like business alliance with us to that which we are endeavoring to establish with Great Britain.

Besides the incalculable commercial and monetary advantages to our people which such business alliance of our agricultural producers with the consumers of these great nations must supply, with the additional bond of union and confidence of a fellowship in our Order, war between us could hardly occur. Surely this feature in our work is worthy of very high consideration.

I have only alluded to a few subjects of prominent interest to our Order and our whole country. Coming together as you do, from every part of it, with the experience of another year in the working of the Order, and especially of its business system, you are prepared to supply omissions and to remedy defects in our laws that will facilitate our safe progress towards the grand objects of our organization.

There is one subject, however, to which I ask your attention specially.

At the last session my worthy predecessor, in his annual address, congratulated the Grange in the appropriate selection of a location for our

Permanent Headquarters,

And were forcibly urged that our great Order should now have a habitation as well as a name, and that each State and Subordinate Grange should own and occupy suitable buildings, as of itself almost a sure guarantee of permanence. These suggestions were fully endorsed by the report of a committee which was adopted, with a resolution "that all Masters of State Granges be advised to offer to their Subordinate Granges the suggestions of our Worthy Master relating to the building or owning of Grange halls, as a means of fostering and increasing the interest of our members in our Order."

At the same session the whole subject was referred to me, with a request that I should present the matter to this session of your body, and that I should present therewith such propositions as may be offered to me on the subject.

Accordingly, I advertised for proposals in the city of Louisville, last month, and herewith submit the propositions received in response thereto.

I cannot too strongly urge the importance of such action at the present session as will fix permanently the headquarters, and secure a suitable building for the National Grange. Your advice to the State and Subordinate Granges on this subject, at the last session, so well given, would receive much greater force by your own example.

The money in our treasury, which might be used for this purpose, is rapidly diminishing by donations. While we have any considerable sum on hand urgent appeals will be made for donations in the interest of our membership in States having suffered from insects and drouth. No amount that can be appropriated from our National Grange Treasury would afford an appreciable relief, so divided. This should be the work of our Subordinate Granges and members blessed with abundance, and I rejoice to say they have not been unmindful of such obligations.

In conclusion, I trust that the same harmony and freedom from sectional feeling which has so eminently and admirably characterized the deliberations and actions of this body, and of our entire Order, in the past, may obtain at this session, and in all time to come; thus rebuking the reckless selfishness of political partisans who are too graceless to profess a zeal above party, and continue to irritate the wounds which every true patriot should labor to heal.

From the Granges.

Yuba City Grange.

Editors Press:—Last Saturday this Grange held its regular monthly meeting, and it being the time required by our By-Laws for the election of officers, there was a good attendance. The attendance was not quite as large as on some other occasions, but the social standing of those who were present, and the warm expression of their sentiments in favor of the Grange, made it one of the most encouraging meetings we have ever had. The visionary element who expected to derive large material benefit from the institution without any effort on their part, or even a consideration of whence this benefit should come, have gradually dropped off; and now our "solid men," whose motto through life has been "nothing good without labor," are now stepping to the front and taking hold of the Grange with their characteristic business energy. The occasion appeared to invite an expression of the members as to the benefit of the Grange to the agricultural class; and the sentiment appeared to be unanimous that the Grange had made itself a necessity which the farmers having once enjoyed could not afford to do without. From a notice in your last issue we learn that Bro. Pilkington will make us an official visit on the 21st inst., and steps have already been taken to make it pleasant for the Lecturer and profitable to the farmers generally. A general invitation has been extended to the farmers of Yuba and Sutter counties, whether Patrons or not, to attend on that occasion, and we hope to have such a large and intelligent audience to greet our Worthy Lecturer that he will leave us favorably impressed with our zeal for the good of the Order, and encouraged to renewed effort in his new field of labor. M. F. H.

Yuba City, December 4th.

Eagleville Grange.

Editors Press:—Eagleville Grange, near Eagleville, was organized November 17th, 1876, by the District Deputy, Bro. C. L. Sullivan, of Modoc county. All the members seem to be strictly farmers, and of improved morals, and manifested a large degree of interest, saying that they have made middlemen rich, while they, the bone and sinew of the land, have made but a small profit; and other similar statements, that all know to be strictly true. The charter list was full, and others are anxious to join. I exhibited a copy of the Patron, and obtained 12 subscribers. The officers throughout seem to be the right men and women in the right place. John W. Brown was chosen Master, and R. W. Minto, Secretary. One brother spoke of trying the Grangers' Business Association, at San Francisco, by shipping them 6,000 pounds of butter, for sale, also ordering his winter's supply of groceries. Good for him. A. B. Crawford,

Sec'y Modoc Grange.

Lake City, Nov. 19th, 1876.

Temescal Grange.

Editors Press:—Temescal Grange will hold a regular meeting on Saturday, December 16th, at 2 o'clock P. M., at which the officers for the ensuing year will be elected, and all members are requested to be present; by order of the Worthy Master. J. S. Collins, Sec'y.

Oakland, Dec. 5th.

Worthy Master J. V. Webster returned to his home on Tuesday evening from attendance at the National Grange in Chicago. We welcome his return.

The National Grange.

We give herewith a portion of the address of Worthy Master Jones. It will be found a very interesting and important document, and one which should be carefully read by every member of the Order.

Seventh Day.

Continuing our report from last week, we find but little of general interest to note among the proceedings of the seventh day. A resolution was passed calling upon our Senators and Representatives in Congress to initiate steps repealing all laws levying taxes and duties upon tobacco, and to use their influence also to bring about a like result in foreign countries, to the end that commerce in that commodity may be entirely unfettered. On the

Eighth Day.

Hon. D. Wyatt Aiken, the recently elected congressman from South Carolina, arrived and took his seat as a member of the National Grange.

An amendment was proposed and adopted reducing the members of the Executive Committee of the National Grange from five to three. Before becoming a law, this action will have to be ratified by three-fourths of the State Granges. No other business of special interest was transacted.

Ninth Day.

The Committee on Co-operation presented a partial report, which dwelt especially on the views taken by Mr. J. J. Holyoke, a co-operator in England. The Committee recommended the publication by the National Grange of all necessary papers relating to this subject. They further recommend that members of the Order do their best to establish local, State, and inter-State co-operative associations. A system of general State agents at important business centers was also recommended.

Tenth Day.

The discussion on the subject of co-operation was continued to-day. The committee made their full report and recommended a system of co-operation which shall provide (1) a Business Manager in each State, who shall also be recognized as a National Business Manager; (2) that such manager shall give a sufficient bond, and that the State Executive Committee shall supervise his business operations, etc.; (3) that this manager shall make contracts with manufacturers and merchants for supplies, procuring the best rates of transportation, etc.; (4) that it shall be his duty to employ, appoint, and remove buying and selling agents, subject to the approval of the Master and the Executive Committee; (5) that he shall be paid a salary out of a tax upon the business of the agency; (6) that the National Grange be requested to advise the conversion of all joint-stock stores into co-operative stores.

Last Day—Final Adjournment.

The last day of the session was a busy and important one. Many important measures which were in course of preparation during the early days were finally acted upon. Such as are of general interest to the Order and not proper for free circulation will be promulgated in the usual manner.

Perhaps the most important act of the session was the final passage of the report of the Committee on Co-operation. The recommendations of the committee, as already given, were adopted with very little amendment. An important resolution providing for a system of State agencies was also adopted.

Not less than 258 resolutions, petitions, reports and other papers were presented during the session, and all received proper attention.

At the close of the day's session the Grange adjourned *sine die*.

Election of Officers.

Bennet Valley Grange, No. 16, Santa Rosa, Cal. Election, Dec. 2d: G. N. Whitaker, M.; C. Lyman, O.; A. Burnham, L.; N. Carr, S.; D. E Miller, A. S.; I. De Turk, C.; B. Lacque, T.; R. Allen, Sec'y; A. R. Lacque, G. K.; Mrs. Lyman, Ceres; Miss M. Carr, Flora; Mrs. M. Allen, Pomona; Miss Bell Burnham, L. A. S.; Trustee, S. C. Story for three years.

Yuba City Grange No. 65, Yuba City Cal. Election, Dec. 2d: Joseph Hardy, M.; J. P. Onstott, O.; J. C. Smith, L.; W. J. Hardy, S.; B. F. Frisbie, A. S.; Mrs. B. F. Walton, C.; Geo. Harter, Treas.; Annie Ohleyer, Sec'y; B. F. Walton, G. K.; Mrs. Geo. Harter, Ceres; Mrs. J. W. Moore, Pomona; Mrs. W. D. Hudson, Flora; Annie Stewart, L. A. S.

In Memoriam.

SANTA ROSA GRANGE, No. 17, November 25th.

Whereas, Our beloved sister, Ellen R. Davis, having well and faithfully finished her useful labors here, has passed to the enjoyment of her reward, therefore

Resolved, That in this event our fraternity has lost one of its most useful members and society one of its brightest ornaments.

Resolved, That recognizing the Unseen Hand which doeth all things well, we tender our sympathy and condolence to those bereaved ones who have been made to suffer the anguish of that separation, which was inevitable.

Resolved, That the Steward be instructed to drape the Grange hall in mourning, and that the members wear the badge of mourning for thirty days.

Resolved, That a copy of these resolutions be sent to the family of our deceased sister, and that they be published in the local papers and the Rural Press.—Committee: S. T. Coulter, A. J. Mills, John Adams.

Agricultural Notes.

California.

ALAMEDA.

Irrigation Company.—*Independent*, Dec. 2: The water works company of Washington and Murray township have had their workmen busy for some time, we understand, in securing an ample supply of water in their reservoir near Niles, for the use of farmers and others who may have need of it for cultivating the soil the coming season. By drawing from Alameda creek the company can store up an immense quantity of water which may yet prove of inestimable benefit. Their ditch runs through Centerville and down west as far as Newark, and water can be turned off northward or southward, so as to accommodate a large number of persons throughout an extensive district.

COLUSA.

November Rainfall.—*Sun*, Dec. 2: The rainfall for November this year at Colusa has been less than one-hundredth of an inch. Taking Dr. Logan's tables, at Sacramento, we find that there has been but five years since 1849 when the rainfall for November has been less than half an inch. In 1850 there was only a sprinkle, and the total rainfall of the season was 4 71 inches, the smallest we have ever had. In 1858 there was 0.11 inches in November, with a total of 16 inches. In 1860, November, 0.18, with 15½ inches for the season; 1862 had a sprinkle in November, with 11½ inches for the season, and 1873 had 0.21 inches for November, with 21.81 inches for the season. So that there is no prophesying a wet or dry season from what we have had or what we failed to have last month.

Disease Among Horses.—A new and rather peculiar disease has made its appearance among horses in this valley. The horse attacked gets weak, breathes hard and sweats with the least exertion. It is sometimes accompanied with a cough, but it is not the epizootic. We do not know how widespread the disease is, bnt we know it extends north as far as Chico. W. F. Goad lost a valuable horse the other day, but the disease had not been noticed on him before he dropped dead. He had been driven out to Williams very fast, and on the way back fell dead. As he was very fat, "horse men" think he was perhaps overheated. We know of no remedy for this disease—in fact, don't know what has been tried.

Grain Statistics.—We have been favored by E. W. Jones & Co., and the Farmers' storage and commission company, with the figures of grain received during the season, making a total of 17,893 tons of wheat and 661 tons of barley for the season's work. This is over 6,000 tons more wheat than was ever received at Colusa before. This wheat has averaged the producers $1.55@1.60 per cental. At the former figure it would amount to $554,683. With wheat being banked all along the river on both sides for shipment, this is a pretty good showing for the neighborhood of Colusa. In addition to the wheat, the Farmers' storage and commission company has shipped 888 bales of wool and 1,082 head of hogs this fall.

CONTRA COSTA.

Will it Rain?—Antioch *Ledger*, Dec. 2: Weather prophets are puzzled to divine what may be in store for the San Joaquin plains in regard to rainfall. Opinions are various, and each believes himself. It is claimed on the one hand that we should receive one-half the annual rainfall before Christmas, and as that is but 23 days hence, it is doubtful whether the desired quantity will be vouchsafed us. Others maintain that we are indebted to the late spring rains for a generous yield of wheat, and that this holding off so late in the autumn is the best indication of the later rains. There is complaint that the land is still too dry for plowing, though farmers are busy throughout the valley preparing the soil and sowing grain. We can only wait and see.

A New Destroyer.—*Gazette*, Dec. 2: To some extent, but we have not learned with what effect, a new instrument for destroying squirrels is being tried this season. The instrument is a light bar of bent iron with two fine, sharp pointed knives of abont two inches in length. It is intended for setting in a squirrel hole in such a manner that the squirrel may come out unharmed, but cannot return without being ripped open with one or both the knives. Properly set and attended it is possible that some execution may be effected with this instrument, but it does not seem well calculated for the work of wholesale destruction required in districts much infested with the pests.

FRESNO.

The Colony.—*Republican*, Dec. 2: If any one has a doubt as to the success of the colonization enterprise of Messrs. Chapman and Marks, let them drive out and see for themselves. Mr. Marks finds his time almost wholly occupied with the sale of the tracts, and attention to those who come to see and to buy; and the details of ditch construction, etc., necessarily have to be intrusted to others. Under the management of Mr. Barrett, the entire canal is being enlarged and perfected, and the care and distribntion of water has been placed under the control of Mr. Covell. In every respect may the colony be considered a success.

HUMBOLDT.

Large Log.—*Times*: Look out for the biggest tree that ever went to a saw mill. We learn that Mr. John Vance has cut and transferred over his railroad to the bay, logs from one tree which measures 60,000 feet. These are all perfect merchantable logs, and we understand that the log will measure between 12 and 13 feet in diameter. Some persons seemed to be of the opinion that Mr. Vance could never transport over his road logs of such size and weight, but in their opinion, as has been seen, they were in error. The raft containing these logs will reach the mill in Eureka some time during the week.

KERN.

Double Cropping.—*Courier*, Dec. 2: Judge R. L. Dixon, on the Buena Vista ranch, planted barley early in February on a tract of about six acres, and harvested it in June, getting a full crop. He then turned in a flock of sheep and fed off the stubble. On the 8th day of July the ground was irrigated and planted in corn. Before the time for plowing the corn, the barley volunteered, covering the field, and the two crops were left to see which could capture the field. The corn in November was not a full crop, because it was retarded in its growth by the grain, but the barley was as fine as any planted in that section of country. Judge Dixon is of the opinion that if he had cut his grain on the 5th of June, instead of the 20th, which he could have done, as it was then ripe enough, he could have secured a large, if not a full crop of corn, and would have had at least 40 bushels of barley to the acre. These experiments are of incalculable value to the country, and show that a farm of 40 acres with water to irrigate it can be made to produce as much as a farm of three times the area with no such privilege, and at one-sixth of the expense.

Delayed Rains.—Some anxiety is expressed about the season, on account of the delayed rains. Mr. A. Godey, one of the first, if not the first resident of the county, and whose observations of the seasons are treated as authority, says our best seasons have been those when rains have been delayed in December. The rains are then continuous, and the ground does not become dry after them as with October rains. He says the cattle on the plains and in the hills are in fine condition and are doing well. The dry feed has not been injured with showers. He has faith in a very favorable season.

LAKE.

Development of Our Resources.—*Bee*, Nov. 30: Few places on earth have so great natural resources as Lake county, and yet so far our advantages have been only in a slight degree utilized. The hidden wealth of the county is almost untouched. With a large area of farming land, there is at present almost a scarcity of grain. For lack of proper cultivation much of our fruit comes from outside the county. With enormous taxation, we yet have very little to show for it. This will always be the case unless measnres are taken to properly develop the natural resonrces of Lake. The mineral wealth of the county is certainly scarcely known. The problem is, how to secure the attention of capitalists to these advantages. We need to have a general interest in these things, as the expenditure of capital in one part of the county is beneficial to all the rest. We need a more practical system of building and improving roads than we have yet had. And we also need greater improvements and better accommodations than we have ever had at the principal watering places in the county. A large quantity of swamp land might be made available for cultivation at a mere nominal expense. Attention is certainly needed in that direction. In fact, we need a general waking up; an abandonment of old fossilized ideas and a greater showing of public spirit in order to make onr county what it should be and promote general prosperity.

LOS ANGELES.

Barrels of Orange Seed.—*Herald:* The co-operative nnrsery and fruit company, of Los Angeles, have just ordered 500 barrels of orange seed for planting on their grounds, near the southern boundaries of the city. The company now have 1,000,000 orange trees of three years' growth. This establishment is probably now, or soon will be, the most extensive one of the kind in this or any other conntry.

Alfalfa for Hogs.—Anaheim *Gazette*, Dec. 2: An important and interesting experiment has been projected by Messrs. Fruit, Brown, Linington and Walton, in which they propose to test and demonstrate the valve of alfalfa in hog raising. Also, to show that the people here can make their own cured ham and bacon without having to import any of it. They have bought 80 acres of land near town (two miles southwest) which they propose to sow in alfalfa altogether, on which they intend to feed their stock of hogs, and prepare them for the last stages of fattening. That accomplished, they propose to butcher and cure them after the most approved method. Workmen will be immediately set at work sinking artesian wells, which are readily obtained at a depth of from 40 to 100 feet.

Figs.—We noticed yesterday some splendid samples of figs put up by Mr. Luedke. They present a fine appearance, and are no doubt as good as they appear.

Loss.—Serious damage was caused by the late wind at the bee ranch of Mr. J. W. Sallee, in Santiago canyon. A two-story bee house was thrown down and a large number of bees and several tons of honey destroyed.

MERCED.

Angoras.—*Argus*, Dec. 2: While visiting at Angora flat, the winter home of the Hope Brothers, which is situated about three miles south of Coulterville, I had the pleasure of seeing the finest band of Angora goats to be found in that part of the mountains. The band consisted of 700 graded goats, many of which were almost pure blooded Angora. The sight was almost bewildering. I could scarcely believe that I was awake. Hundreds and hundreds of the beantifnl creatures, with floss-like fleece measuring from six to ten inches in length, came bounding into the corral as silently as the melting snow. They are sheared twice every year, and at each shearing produce from three to four pounds of wool each, which sells at from 40 to 90 cents per pound.

NAPA.

Blackberries.—St. Helena *Star*, Nov. 1: A vase in the *Star's* sanctum is graced by a blackberry vine with buds, green berries and three ripe berries, the result of our mild winter. It is from the garden of Mr. Edwards, of whom we spoke last week, and that gentleman reports that if the frost holds off a fortnight longer he will have quite a crop of ripe berries to exhibit.

A Large Farm.—*Reporter*, Dec. 2: We give in detail a description of what Mr. Abram Clark, of Berryessa, has done and expects to do. During the past season Mr. Clark cultivated 8,500 acres of land in wheat, barley and hay, from which was produced 73,000 sacks of wheat, of 135 pounds each; 7,000 sacks of barley, of 110 pounds each, and 300 tons of hay. The wheat produced this year has been sold, and the proceeds amount to the snm of $197,000 coin. To carry on these vast operations Mr. Clark employs about 75 men and 140 mules and horses. He has 24 gang plows, three plows to each gang, and in harvesting he has eight headers and two steam threshers. He has 175 cattle and 500 hogs on his place. In June last Mr. Clark purchased property in Berryessa valley for which he gave $103,000—$80,000 for real estate and $23,000 for growing crops and personal property. His crops for '76-77 will net him more than enough to pay for this purchase. His crops for 1877 will be 11,000 acres of wheat, with the proper proportion of barley and hay. Eight thousand acres of wheat has already been sown, much of it being up and growing finely. On Tuesday last, Messrs. James H. Goodman & Co., bankers of this city, sold Mr. Clark's crop and other small lots they had on hand, which made an aggregate sale of $200,000, the largest single transaction which has ever occurred in Napa county.

SACRAMENTO.

Another Cool Morning.—*Record-Union*, Nov. 30: Tuesday night the north wind, which had been blowing for 24 honrs, subsided, and by nine o'clock the air had become quite cold, the thermometer registering 46 degrees. Yesterday morning at six o'clock the mercury showed only 30 degrees—two below the freezing point. Owing to the north wind having dried up the moistnre in the atmosphere, there was very little frost.

SAN BENITO.

A Dairy Project.—*Advance*, Dec. 2: Messrs. Davison & Cole, of Santa Clara county, have in view the establishment of a cheese and butter factory in Hollister, and if the prospect of milk production in this valley warrants the enterprise, the large store owned by J. M. Browne, at the south end of town, will be secured for the purpose. These gentlemen would reqnire the constant daily delivery of milk from no less than 500 cows to enable them to pursue this industry successfully. The question is, what encouragement have the farmers of the valley to offer towards the consummation of this important commercial pursuit. A large outlay will be necessary to fit up the building with necessary machinery, vats and presses, and, before any money is invested, Messrs Davison & Cole are wisely determined to prospect the chance for the success of the enterprise. To manufacture cheese and butter profitably, a fresh and constant milk supply must be assured. Many hands will be employed by the month, and unless the outlook promises well, the work will not be undertaken. A good opportunity is now presented for San Benito county to acquire a reputation for dairy products. Let every farmer be ambitious to help these gentlemen by their influence to plant the factory here.

SAN BERNARDINO.

Frost.—*Times*, Nov. 23: Ice over an eighth of an inch thick formed on vessels left exposed last night. This is probably one of the results of north winds which blew yesterday and the night preceding it, and is more to be ascribed to the rapid evaporation of the moisture than the actual coldness of the weather.

SAN JOAQUIN.

Large Load.—Stockton *Independent*, Nov. 30: The largest load of wheat ever floated out of Mormon slough was taken out yesterday on the mammoth barge *Centennial*, towed by the steamer *Constance*. The Captain of the vessel was fearful that it would be impossible to get in and out of the slough with any load in the present low stage of water, but as an experiment, 9,000 sacks of wheat, equivalent to 600 tons, were loaded upon the vessel and towed out last evening, without the slightest difficulty or without touching bottom, notwithstanding the fact that the barge drew four and a half feet of water. The fact is very good evidence of the value of Mormon slough as a navigable channel. The wheat was loaded by J. H. Barney & Co. The barge will complete her load of 200 tons additional in Stockton channel today. The total load will be the largest ever taken out of Stockton, and almost equal to the capacity of many of the ocean ships composing the California grain fleet.

SAN LUIS OBISPO.

A Gross Outrage.—*Tribune*, Dec. 2: During the night of Tuesday last, some candidate or candidates for San Quentin entered the field in the rear of the residence of C. H. Phillips, Esq., and emasculated 11 of his fine merino bucks. Four of them were imported stock, worth several hundred dollars each, the balance being selections from the high-bred flocks of B. F. Pettit and R. E. Jack. The outrage was discovered on Wednesday, when the condition of the sheep was such that Mr. Warden, foreman for Mr. Phillips, decided that they would all have to be killed, as the Paddy would say, "to save their lives." This act of these miserable, low-lived miscreants is of so cruel and monstrous a nature that we can find no language sufficiently strong to denounce it in. What makes it still worse is the inability of Mr. Phillips or his friends to assign any cause for the animus of the deed. This is off the same web as the burning of R. E. Jack's residence, with the more damnable feature of inflicting cruelty on helpless dumb beasts. No money will be spared in ferreting out the perpetrators of this deed.

SANTA BARBARA.

Honey for England.—*Press:* Four tons of honey were recently shipped from Santa Barbara county to England. If it turns out well, a new and extensive field is opened for bee raisers. The demand for honey in England and in the whole of Europe is very large, and, of course, the price is in proportion with the demand. With the facilities for raising bees that are peculiar to California, this State could almost monopolize the trade, and the result of this shipment will be watched with great interest.

SANTA CRUZ.

Agricultural Society.—*Sentinel*, Nov. 25: At the seventh annual meeting of the Sixth Senatorial District agricultural society, the following officers were elected for one year: President, J. S. Mattison (re-elected); First Vice-President, R. H. Sawin (re-elected); Second Vice-President, Joseph Francis (re-elected); Secretary and Librarian, Roger Conant (re-elected); Treasurer, Martin Kingsley (re-elected). Trustees, J. S. Mattison, R. H. Sawin, J. H. Skirm, J. S. Waite and Martin Kingsley. Mr. Mattison has been the President and Mr. Kingsley the Treasurer since the organization of the society. The membership is constantly increasing, and the society is in a flourishing condition. The membership fee is $1, the dues 25 cents per month. The library now numbers about 300 volumes of choice works. All the funds of the association, except what are necessary for the expenses, are used in purchasing books.

SONOMA.

Agricultural Fairs.—It is a very gratifying showing of the affairs of the Sonoma and Marin district agricultural society that is made in the annual report of the Secretary. It will be seen that all the indebtedness of the society has been paid, and there is money in the treasury. The fair this year was a greater success pecuniarily and otherwise than any of its predecessors have been, and there is every reason to believe that the next one will be still better. The constantly increasing interest that is felt in our annual fairs, as well as their steadily increasing excellence in all departments, must be very gratifying to all who are concerned in the development of the resoures of the district.

Larger Area.—This is the first day of December, and in most seasons farming operations preparatory to planting have only fairly commenced at this date. It is estimated by good judges that the area already planted in Petaluma and Vallejo townships exceeds the average area for a whole year, taking one season with another. And yet the plows and harrows are everywhere running, and many who had sowed all they intend to are still at work.

VENTURA.

Imported Poland Chinas.—*Signal*, Dec. 2: Mr. Jonathan Mayhew, of Santa Barbara, who owns one of the best farms in Ventura county, is an enthusiastic raiser of fine hogs, and has determined to induce his neighbors of this county to give their attention to the improvement of their stock; to that end he went East this fall and has just returned, bringing with him three boars and four sows of the Poland China breed. They each were in good condition when started, but, unlike other breeds, continued to improve, all having gained 104 pounds on the trip. Mr. Mayhew has a photograph of the "boss" sow, "Lady Greer," bred by W. W. Greer, Oxford, Ohio, which represents the most perfect pig we have ever seen. She weighed at three years old 525 pounds, not then fat. Mr. M. has brought all the pigs to his farm in this county, and expects to engage largely in the breeding of fine hogs. Those desiring to improve their stock should call on him. Mr. M. traveled 10,000 miles in all before securing what he wanted. Mr. Aratus Everett, who farms Mr. Mayhew's place, also has an interest in the stock and will give parties who call all information desired.

Conejo.—*Press*, Dec. 2: Farming on the Conejo rancho is being pushed rapidly forward. Every available horse is at work there with chisel cultivator, sower and harrow, putting the seed in the ground before the rains come. There will be over 5,000 acres sown with wheat this season. Messrs. Whitesides & Brown, on Mr. Mills' place, have done more thus far than any others. They have already nearly 500 acres sown and ready for rain.



A Century's Farewell.

[Written for the RURAL PRESS by JOHN TAYLOR.]

A nation's warm heart beats a long farewell
As time's last page records a century's knell;
A loving farewell o'er a hundred years
Of freedom grandly won, 'midst tears and fears.

List to the joyful bell which grandly peals
Of freedom's triumph. A charity steals
O'er our inmost soul. No North or South we view,
But one great nation, born to life anew.

Could we invoke the muse in strains divine,
Or weave a web of golden orbs that shine
In heaven's blue vault, a circlet grand
Would crown the brow of liberty's fair land.

From cold Alaska's strand to frozen Maine
Our land rejoices, one whole land again;
Proudly shall freeman stand on freedom's soil—
A king—though hands are hard from honest toil.

Then sing of peace, while war is laid in dust.
The patriot's prayer is heard, "In God we trust;"
Our trust is not in vain; let anthems rise.
The echoing angels answer from the skies.

East and West—No. 8.

[Written for the PRESS by PHILMORE.]

Social Life.

The wonderful changes in social life within the last 25 years have been the subject of considerable talk, and speculation as to what we are coming to. If our extravagances continue to increase for the next two or three decades as they have during the same time just past, what will be the reault? What Aladdin's lamp must be discovered to enable the poor man to-morrow to outshine the fortunate millionaire of to-day, whose horses he considers himself honored to drive?

Who are our nobility? Who do we look up to for example? Who do the vain and foolish strive to pattern after, or perhaps outdo? Once the good substantial man that showed his good sense without ostentation and display was considered the man to emulate. The one that strove for notice and position with a great display, and it may be a gaudy dress or turnout, was laughed at, and shunned by the better class, and only the young and foolish sought his acquaintance or tolerated his society. Who that has lived bordering upon half a century does not remember the country squire of those early days, and let him find his equal now in all that goes to make up honor and honesty, with true enjoyment of his hard earned subsistence. We can seem to see him now, after 40 years, with his well fed but poorly groomed horse, with its thick long hair, undecided which way it was best for it to grow, forward or backward, harnessed to the old "carryall." The sides of the hay or grass-fed beast would rest on either thill, while the "tackling" would whack, whack, whack, as the clumsy old horse trotted lazily along or creaked the driver to sleep as he subsided into a walk.

At the "meeting house" regularly every Sabbath day you might be sure to find the Squire's turnout hitched to a convenient tree; with, it may be, a bunch of new made hay before him, if it was summer, or a feast of oats in the straw if in the winter, with a buffalo skin to protect him from the cold during a long and stupid, but apparently to them quite a satisfactory sermon.

There were two doors to the meeting house, and the male and female portions of the congregation were separated by a kind of fence. No "starched up" religion for them, no contribution boxes with cushioned bottoms for the quarters and halves that would have been considered miraculous in those times. An old hat answered the purpose, and if the inside of the bell crown was covered with coppers, and now and then a dime or half dime, they considered it a good haul and sang with a renewed energy these old familiar lines, commencing

"How happy are they, etc."

After service and the usual hand shaking and "howd-do's," the topics of the day were discussed, and they, one by one, reluctantly left for home. Some good brother, or it might be the Squire himself, would take the minister along for a good square meal, and then was the time the pumpkin pies and plum puddings were brought on, and you might be sure they had justice done them.

All this took place in good old New England less than 40 years ago, less than 20, less than 10! Indeed, there are to-day being enacted just such scenes. Change the season and call it Thanksgiving and you may depend upon it you will have the same characters. Even when want presses hard upon them you will find more genuine Thanksgiving than in many a palatial home where Mammon is the only god they worship. Some of our millionaires and bonanza kings of to-day have sprung from just such homes, and amid all their pomp and the splendor that surrounds them, they will tell you they are not more happy now than then. Perhaps they can look back across the bridge of years and remember some upstart that was to them then what to-day they are to others—a laughing stock and a subject for ridicule and jest. Yet now they know it not, for the fawning "crook the pregnant hinges of the knee" to ostentation and display, while the wise look on and learn a lesson for posterity.

Such are the fashions of the times and such are our would-be aristocrats, once called the "codfish aristocracy," more recently known as "shoddyites" by others, but, to themselves, entirely unknown.

There are those that prosperity does not make entirely blind; those that fully realize their position; whose good sense keeps them within the bounds of reason. They maintain temperance and moderation in all things and they are the ones that deserve to be rich; they find friends in all classes of society when the ostentatious aristocrat is shunned and laughed at.

It is but a very few years since a man that was considered rich would have dared come out with a carriage and servants in livery, and yet they are now quite common. Originally patent medicine humbugs and mountebanks generally were the only ones to attempt such a display. Helmbold at New York could sport his four or six-in-hand and why not Perry Davis, Doctor Ayer and a hundred others, including the great "king of pain." The late war, like a shower in summer, brought out any number of mushrooms, some of which were as short-lived as the cryptogamic fungi they represent, while others hung on for another season or two and then went out of sight forever.

A few of the shoddy grandees remain, but other sources of wealth have been developed and other nabobs for an hour have been brought to light. All manner of speculations have been entered into, some of which, like tickets in Havana lotteries, have drawn prizes. But unless something new can be found to gull a too-willing public there is likely to be a lull in the creation of such questionable nobility.

New York is feeling the terrible effects of the calm after the storm, and to day her real estate is scarcely more than half what could have been realized for it during the inflated period, and the chances are it has not touched bottom yet.

What has become of the men that figured prominently in those days of delusion and greenbacks? Daniel Drew was considered one of the rich men of the great metropolis, and generally supposed to be both shrewd and careful. Where is he to-day; to say nothing of hundreds of others that made more show upon less substance? Some there were that blazed like a comet for a season and then suddenly went out and are forgotten.

Not alone the sin and shame of such extravagance and folly, but for what other sins may not those that set such examples be responsible. Who shall say that much of the misery of to-day has not been caused by just such foolish display and egotism on their part, and seriously, does it look as if the worst was over?

The great moral epidemic did not stop in New York, but like the star of empire took its way westward. It crossed the great rivers, the great desert and the Rocky mountains, and finally the last barrier, the great Sierras, were scaled and the bird of evil omen set its foot in San Francisco, and to-day it flaps its gaudy wings over this great and prosperous city as if it were the forerunner of its dissolution. We may avert all that, but we cannot avert altogether the evil influences that must certainly follow such extravagance and folly. Good men will not live as long, and while they do live, what to them is such a life?

We would also say a word about women of the past, present and future. It must be understood that the Squire had a wife, and her name was just as likely to be Polly as anything else, and, unlike a good many wives now-a-days, she was content to live with her husband. She had no occasion to travel in Europe and on the Continent. She was a mother as well as a wife, and her five or six grown-up children were her pride. She could tell them stories of long ago; how things were done when she was young. How she spun the flax that her first table-cloth was made of, which her grandchildren have to this day and exhibit with pride to their wondering friends. Those sons and daughters, whose locks are bleached with years, remember the cloths that were spun and woven and made up by their mother.

The Squire prided himself upon wearing cloth made by Polly's hand. The wool was sheared from his own sheep and possibly corded by Polly's hand also. Or, if not, the nearest carding mill turned them out, and they were brought home fleecy rolls, ready for the spinning wheel, and then the "quill wheel" and finally for the "loom" that was found in almost every house. And the loom was not only found, but the housekeeper found time to use it. And then the cloth was dyed and fulled and finally brought home for the boys' winter suits, and then the tailoress was sent for and each in good time had his new clothes. The daughters took a hand and all learned to sew young, and none felt above it. But there were some so constitutionally lazy that they did but very little, and those must have been the mothers of such daughters as are constantly telling us that they never knew what work was when they were young, and, strange to say, they never learn as they grow older. And there is very little wonder that our young men are apt to think twice before they take so serious a step as to offer themselves to the very ornamental young ladies of our times.

[To be Continued.]

The Better Times.

The better times, for which we had waited so long that we had almost become hopeless, seem to have dawned at last. Business is reviving. The spindles begin to whirl again; the merchant has his customers; once more that which is produced finds a ready market; and once more there is labor for the workman, and bread and clothing and shelter for the laborer. After the terrible lesson we have received, it is a good time to talk about the future. Are we to go on again in the old way, and fill up, within a limited period of years, the old measure of foolishness, and tumble again into the old consequences?

It is not necessary that we should do so. We have, from mere necessity, begun to be economical. Let us continue so. Let us build smaller houses; let us furnish them more modestly; let us live less luxuriously, and tune our personal and social life to a lower key. We have bravely begun reform in public and corporate affairs. Let us continue this, and vigilantly see to it that our trusts are placed in competent and honest hands. We are committed to a reform in the civil service—a reform which will extinguish the trade of politics, that has done so much to debauch and impoverish the country. Let us see to it that this reform is effectively carried out. Our cobble houses have tumbled about our ears; let us not rebuild them. Our speculations lie in ruins, with the lives and fortunes they have absorbed. Our fictitious values have been extinguished; let us not try to relight the glamour that made them. Our long credits and our depreciated currency have wrought incalculable evils; let us not continue them. Let us cease to deal in paper lies and pay in gold our honest debts. Above all, let us be content with modest gains, cease trying to win wealth in a day, and get something out of life besides everlasting work and worry. Fully one-half our wants are artificial, and these terrible struggles for money are mainly for the supply of wants that we have created.—*J. G. Holland, in Scribner for December.*

THE EYE OF MAN IN THE PAST.—Science gives us interesting details about what the human eye has been and what it may become. The Vedas of India, which are the most ancient written documents, attest that in times the most remote, but still recorded in history, only two colors were known, black and red. A very long time elapsed before the eye arrived at the perception of the color yellow, and a still longer time before green was distinguished; and it is remarkable that in the most ancient languages the terms which designated yellow insensibly passed to the signification of green. The Greeks had, according to the received opinion now, the perception of colors very well developed; and yet authors of a more recent date assure us that in the time of Alexander, Greek painters had for fundamental colors only white, black, red and yellow. The words to designate blue and violet are wanting to the Greeks in the most ancient times of their history; they called those colors gray and black. It is thus that the colors of the rainbow were only distinguished gradually, and the great Aristotle only knew four of them. It is a well known fact that when the colors of the prism are photographed, there remains outside the limit of the blue and violet in the spectrum a distinct impression, which our eyes do not recognize as a color. According to physiologists, a time will come when the human eye will be perfected, so as to discern this color as well as the others.

MERCENARY MARRIAGES.—Marriage is surely the natural state of man. But marrying for money is reprehensible. The Rev. George C. Baldwin very truthfully says: "Gold cannot buy happiness, and the parents who compel their daughters to marry for money and station commit a grievous sin against humanity and God. And the woman who marries a churl for his wealth will find that she has made a terrible bargain; that all the glitter of the heartless grandeur are but the phosphorescent gleamings of heartwretchedness; that her life will be one of gilded misery, and her old age will be like a crag on the bleak side of a desert mountain, where cold moonbeams sometimes glitter but no sunshine ever falls, no flowers bloom nor birds sing, but wild storms howl and hoarse thunders roar; and through the sweeping storm shall be heard the stern voice of the great God saying: 'Your riches are corrupted, your garments are moth-eaten, and gold and silver are cankered, and the rust of them shall be a witness against you and eat your flesh as if it were fire.'"

THE MOST IMPORTANT BUSINESS.—The pursuit of knowledge tends to cultivate and to form the mind; but the most important business is to form the heart; that is, to become an honest man. As such, one will abhor injustice, lies, pride, and avarice. If a person, though possessed of the finest understanding and greatest knowledge, should be a liar, cruel, proud, and covetous, he will be hated and detested by every human creature, and shunned like a wild beast.

Hold Your Husband Up.

A woman, writing to the *Sunny South* upon the subject of hard times, addresses her sisters in the following truthful language:

Well, what's to be done about it? Such times kill energy, hope, enterprise. Alas! you say, if I were but a man, etc. This is the cant of absurd, unfeminine ambition and discontent. Drop it. It is unbecoming, indelicate. Thank God, who has made you a woman; who has placed you in a sheltered position; who has interposed between you and the harsh contact of life and enterprise the devotion and strength of man. Sit back in your curtained house, where you need see only your own—yours by every tie of affection and blood—yours in tenderness and sympathy—where you are or may be as supreme as royalty itself, and glory in your empire. But dare not be idle there. Your hands, if they are dainty, were not made to handle silks and laces alone, nor the quick brain which throbs under your smooth brow and flashes from your dark eyes, only to be fed by romance and fiction. Verily, you've a mission outside the important domestic requirements of home. Hold your husband up. Yes, even you, who so often feel that you must lean so heavily upon his strength and love, hold him up. The day may come (it comes to all sooner or later) when your hands must do this work—your heart must bear its burden as well as his. A day may come when, in bitterness and disappointment, he will call himself a failure—when he believes men so call him. You know otherwise—you know him brave, patient true and good, but not infallible. Men grow strangely weak when they doubt themselves.

Now is the time. You know him far better than do others. Let him see and feel that the judgment—the court above all the rest—indorses him. Show him that you believe in him—that on this trust you rest for your little ones and yourself. Keep his heart warm with confidence and approval. Tell him boldly that with him at the helm your domestic happiness cannot be wrecked. Keep his thoughts at home. Don't let him look far out at sea—fearing storms and breakers. More than one man has been saved, helped, rescued by his wife's unfailing faith. "I cannot be less than she thinks me," he says, and, new-shod, he begins the battle once more. Here is your mission, my sister; here is your suffrage. Keep the briers of this teasing world from pricking your brother's and husband's hearts at home. They can stand the thrusts outside, if they know the oil of faith and love meets them within. Beware the "little foxes that spoil the vines," and you will find a mission as noble, rights as unlimited, and a form as well platformed as any recalcitrant contestant for "woman's rule."

HOW TO BE BEAUTIFUL.—To really improve the appearance, begin on the inside. Fill your heart with gentleness, patience, and good will, and your life with acts of kindness, and truer lines of beauty than any artist can paint will reveal themselves in the person. It may be a long task, but the end is worth the trouble. If it takes a life-time, remember that the outward look is only the partial revealing of the inward truth, and the gems with which you have adorned your true self will be imperishable, although the casket in which for a time they are kept, and through whose openings they can but dimly shine, may crumble; then shall they be revealed in the eternal light of truth, and, ever reflect its luster.—*Saturday Post.*

FLORENCE NIGHTINGALE, in a letter advocating the propriety of the adoption by women of any respectable trade or profession, says: "You do not want the effect of your good things to be, 'how wonderful for a woman.' Nor would you be deterred from good things by hearing it said, 'Yes, but she ought not to have done this, because it is not suitable for a woman.' But you want to do the thing that is good whether it is suitable for a woman or not. It does not make a thing good that it is remarkable that a woman should have been able to do it; neither does it make a thing bad which would have been good had a man done it, that it had been done by a woman."

A LONG-LIVED FAMILY.—In all policies of life insurance, these among a host of other questions occur: "Age of father, if living?" "Age of mother, if living?" A man in the country who filled up an application, made his father's age, if living, 120 years and his mother's 102. The agent was amazed at this showing, and fancied he had got an excellent subject; but, feeling somewhat dubious, remarked that the man came of a very long lived family. "Oh, you see, sir," replied the applicant, "my parents died many years ago, but 'if living,' would be aged as there put down." "Oh, I see," said the agent.

THE GOOD WIFE.—She commandeth her husband in any equal matter by constantly obeying him. She never crosseth her husband in the springtide of his anger, but stays till it be ebbing water. Her clothes are rather comely than costly, and she makes plain cloth to be velvet by her handsome wearing it.

CULTIVATED WOMEN.—Sheridan said, beautifully: "Women govern us; let us render them perfect. The more they are enlightened, so much the more shall we be. On the cultivation of the mind of women depends the wisdom of men. It is by women that nature writes on the hearts of men."

The Effect of Marriage.

There are many views of marriage. As the "Home Circle" embraces all kinds of people we think it well to let an old bachelor have his say, for none other than old bachelor could write as we read in the *Cornhill Magazine:*

Marriage, if comfortable, is not at all heroic. It certainly narrows and damps the spirits of generous men. In marriage a man becomes slack and selfish, and undergoes a fatty degeneration of his moral being. It is not only when Lydgate misallies himself with Rosamond Vincy, but when Ladislaw marries above him with Dorothea, that this may be exemplified. The air of the fireside withers out all the fine wildings of the husband's heart. He is so comfortable and happy that he begins to prefer comfort and happiness to everything else on earth, his wife included. Yesterday he would have shared his last shilling; to-day "his first duty is to his family," and is fulfilled in large measure by laying down vintages and husbanding the health of an invaluable parent. Twenty years ago this man was equally capable of crime or heroism; and now he is fit for neither. His soul is asleep, and you may speak without constraint; you will not awake him. It is not for nothing that Don Quixote was a bachelor and Marcus Aurelius married ill. For women, there is less of this danger. Marriage is of so much use to a woman, opens out to her so much more of life, and puts her in the way of so much more freedom and usefulness, that, whether she marry well or ill, she can hardly miss some benefit. It is true, however, that some of the merriest and most genuine of women are old maids; and that those old maids, and wives who are unhappily married, have often most of the true motherly touch. And this would seem to show even for women, some narrowing influence in comfortable married life. But the rule is none the less certain: if you wish the pick of men and women, take a good bachelor and a good wife.

THE MISERIES OF CHILDHOOD.—Children can suffer. There is an intensity about it. Like their appetites, it has not been dulled by repetition. One of the few privileges of growing old is that we cannot suffer so keenly. We know from repeated blows that time will cure us. We get not to care—but oh! the strength of youthful grief! What enormous vitality it has! How protean its shapes! I am never astonished when I hear of youthful suicides. The absence of the fear of death—so peculiar to youth, for we get accustomed "to the sweet habit of living," and hate to change, but youth has formed no such habit—the absence of this restraining principle, and the love of change, conspire to make suicide possible. Then the vision of what grief is; the terrible curtain that mercifully hides the future, drawn all at once; the pang that rends the heart as we recognize the friend untrue, the promise broken—the future void—no wonder that the river seems so merciful, the knife so kind, the poison so sweet! Youth has no philosophy.—*Appleton's Journal.*

TOO FAR AWAY.—Many years ago, when Greece was struggling for her independence, associations were formed in this country to aid the patriots. A friend of the writer, who acted as collector for the cause in Columbia county, New York, called upon a old lady and stated the case. He described the sufferings of the Greeks under Turkish rule, their heroic efforts to break its power, and the prospect that with such help as America could give they might soon be free. The old lady's heart was touched and she had already drawn out her wallet. Stopping a moment she asked, "Where did you say this was?" "In Greece," was the reply. "And where is that?" "In Europe." "How far from here?" "About 4,000 miles." "Oh! if they are as far away as that, I guess they'll get along!" and the wallet was carefully put away unopened.

ASSOCIATION OF RACIAL TYPES.— Herbert Spencer, in *Popular Science Monthly*, says upon this subject, that "throughout the animal kingdom the union of varieties that have become widely divergent is physically injurious; while the union of slightly divergent varieties is physically beneficial. Some facts seem to show that mixture of human races extremely unlike produces a worthless type of mind. Natures respectively adapted to slightly unlike sets of social conditions may be expected, by their union, to produce a nature somewhat more plastic than either. The best genius of England resulted from a union of Celts and Anglo-Saxons."

TRUE.—When I run against a man who professes to be a Christian, and yet who has a foul mind and a foul mouth and a foul lip, whose wit is vulgar and whose speech is coarse, whose imagination is like a duck whose necessities compel it to play in a dirty puddle, I feel that the man needs a cellar of decency under his professional superstructure. A vulgar mouth is sure evidence of a vulgar mind, and I cannot conceive of anything more utterly distasteful to God's pure spirit than human vulgarity.

PAPER CHURCH.—The Philadelphia *Ledger* says: There is a paper church near Berlin which can contain nearly 1,000 persons. It is circular within, octagonal without. The reliefs outside and statues within, the roof, ceiling, the Corinthian capitals, are all papier mache, rendered water-proof by saturating in vitriol, lime water, whey and white of eggs.

YOUNG FOLKS' COLUMN.

The Children in the Burning Tower.

The little ones opened their eyes at last. The conflagration had not yet entered the library, but it cast a rosy glow across the ceiling. The children had never seen an aurora like that; they watched it. Georgette was in ecstacies. The conflagration unfurled in all its splendors. Long streaks of flame shot far out and illuminated the shadows, like opposing comets pursuing one another. Fire is recklessly prodigal with its treasures: its furnaces are filled with gems which it flings to the winds; it is not for nothing that charcoal is identical with the diamond Fissures had opened in the wall of the upper story, through which the embers poured like cascades of jewels; the heaps of straw and rats burning in the granary began to stream out of the windows in an avalanche of golden rain, the rats turning to amethyst and the straw to carbuncles.

"Pretty!" said Georgette.

They all three raised themselves.

"Ah!" cried the mother. "They have wakened!" Rene Jean got up, then Gros Alain, and Georgette followed.

Rene Jean stretched his arms toward the window and said, "I am warm."

"Me warm!" cooed Georgette.

The mother shrieked: "My children! Rene! Alain! Georgette!"

The little ones looked about. When men are frightened, children are only curious. Children have so little claim to purgatory that if they saw it they would admire. The mother repeated, "Rene! Alain! Georgette!" Rene Jean turned his head; that voice roused him from his reverie. Children have short memories, but their recollections are swift; the whole past is but yesterday to them. Rene Jean saw his mother, found that perfectly natural, and feeling a vague want of support in the midst of those surroundings, he called, "Mamma!"

"Mamma!" said Gros Alain.

"M'ma?" said Georgette.

And she held out her little arms.

"My children!" shrieked the mother.

All three went close to the window ledge; fortunately the fire was not on that side.

"I am too warm," said Rene Jean. He added, "It burns." Then his eyes sought the mother. "Come here, mamma," he cried.

"Tum, M'ma," repeated Georgette.

The hollow sound of cracking timbers rose above the roar of the flames. The panes of glass in the book-cases of the library cracked and fell with a crash. It was evident that the timber work had given way. Human strength could do nothing. Another moment and the whole would fall. The soldiers only waited for the final catastrophe. They could hear the little voices repeat, "Mamma! mamma!"

The whole crowd was paralyzed with horror. Suddenly, at the casement near that where the children stood, a tall form appeared against the crimson background of the flames. Every head was raised—every eye fixed. A man was above there—a man in the library—in the furnace. The face showed black against the flames, but they could see the white hair—they recognized the Marquis de Lantenac. He disappeared, then appeared again. The indomitable old man stood in the window shoving out an enormous ladder. It was the escape ladder deposited in the library—he had seen it lying upon the floor and dragged it to the window. He held it by one end—with the marvelous agility of an athlete he slipped it out of the casement and slid it along the wall down into the ravine.

The ladder was settled in place, and communication established between the burning floor and the ground. Twenty men rushed up, Radoub at their head, and in the twinkling of an eye they were hanging to the rungs from the top to the bottom, making a human ladder. Radoub, on the topmost rung, touched the window. He had his face towards the conflagration. The little army scattered among the heath and along the sides of the ravine pressed forward, overcome by contendiug emotions, upon the plateau, into the ravine, out on the platform of the tower.

The Marquis disappeared, then reappeared bearing a child in his arms. There was a tremendous clapping of hands.

He had seized the first little one that he found within reach. It was Gros Alain.

Gros Alain cried, "I am afraid."

The Marquis gave the boy to Radoub; Radoub passed him on to the next soldier behind, who passed him on to another, and just as Gros Alain, greatly frightened and sobbing loudly, was given from hand to hand to the bottom of the ladder, the Marquis, who had been absent for a moment, returned to the window with Rene Jean, who struggled, and wept, and beat Radoub with his little fists as the Marquis passed him on to the sergeants.

The Marquis went back into the chamber, that was now filled with flames. Georgette was there alone. He went up to her. She smiled. This man of granite felt his eyelids grow moist. He asked, "What is your name?"

"Orgette," said she.

He took her in his arms; she was still smiling, and at the instant he handed her to Radoub, that conscience so lofty, and yet so darkened, was dazzled by the beauty of inuocence; the old man kissed the child.

"It is the little girl!" said the soldiers; and Georgette in her turn descended from arm to arm, till she reached the ground, amidst cries of exultation. They clapped their hands; they leaped; the old grenadiers sobbed, and she smiled at them.

The mother stood at the foot of the ladder. She extended her arms; she received first Gros Alain, then Rene Jean, then Georgette. She covered them with frantic kisses, then burst into a wild laugh and fainted. A great cry rose: "They are all saved!"—*Victor Hugo.*

GOOD HEALTH.

Causes of Mortality in England.

The following article from our exchange, *Iron*, will be read with deep interest, as several valuable lessons can be drawn from it: "Though there is only one way into the world, the avenues leading out of it are innumerable. According to the registrar general, however, whose report for 1874 has just been issued, two-thirds of the deaths in England in that year, and presumably in other ordinary years, occur from one or other of 15 causes. Bronchitis heads the list, killing over 53,000 persons; next comes phthisis, which answers for more than 49,000; then atrophy and debility, for nearly 40,000, mostly young children. Old age, which Dr. Farr qualifies as that which should be the highest in the list, was the cause of 28,604 deaths, more than 26,000 of which were of persons over 65 years of age, some of them centenarians, the proportion of men to women being as 12 to 76. Heart disease, apoplexy and paralysis are increasing, doubtless owing to the increased worry and rush of social lite. Cancer, too, is growing more fatal, but consumption appears to be on the decrease. Hydrophobia is twice as fatal as it was 20 years ago; and the number of violent deaths was 17,920, the highest number yet registered. Nearly all were from accident or negligence; but the executions reached the unusual number of 18, and there were 1,592 suicides. There were 1,249 persons killed on railways in some way or other. The year's returns show 1,313 persons killed by horse conveyances; tram-cars killed 62, omnibuses only 55 persons. By cabs 61 persons were killed, and by carriages 82, and this limitation of the numbers is noted as implying great skill on the part of the drivers in streets often crowded. There were 942 deaths from injuries in coal mines, and 118 from injuries connected with copper, tin, iron and other mines. Deaths by poisoning increased to 461, about a third of them being ascertained suicides. There were 25 boys and men, nearly all following outdoor occupations, killed by lightning. Sunstroke was fatal to 90 persons, and 114 deaths were ascribed to gelatio and exposure to cold. There was a death from the bite of a fox, from the bite of a rat, from bite of a leech, from the sting of a hornet, and two from sting of wasp. An epidemic of scarlet fever raised the mortality of 1874 considerably, and there was an increase in the deaths from excessive drinking. An augmented death rate from infantile diarrhea may, it is suggested, have been owing to the mixture of sewage with water. The deaths from accident and from the other last mentioned causes, as well as from many of those previously enumerated, with one exception, might be greatly diminished by proper care on the part of the State and of individuals."

TREATMENT FOR BOILS AND CARBUNCLES.—Dr. Earl in the *British Medical Journal* says: Boils and carbuncles are not mere inflammations and sloughings of cellular tissue, but specific diseases. They are parasitic, and as such endowed with a definite life and history. In their early stages they may be infallibly destroyed and aborted by destruction of their central stem or root, and even after this stage is passed they may generally be destroyed, and in all cases, at the very least greatly modified by the free application of carbolic acid. To produce this result the acid must be freely introduced into the central portion of the disease, and also iuto any other part where an opening exists or is formed artificially. The strength of carbolic acid used was four or five parts to one of glycerine.

POISONING BY HATS AND BOOTS.—A German medical journal quoted by the Cincinnati *Clinic* reports a case of severe pustular eruption of the forehead, extending over the face, and which was ascribed to the analine dye in the leather of the hat band. We have seen a case of severe poisoning of the legs above the ankles, evidently produced by the leather linings of a pair of half-boots. We have also under observation a gentleman of this city, a leather dealer, who has been repeatedly poisoned by handling a certain kind of leather. In this case the affection was eczematous and followed by permanent maculæ. The gentleman attributed the effect to sumach used in the preparation of the leather.—*Pacific Medical and Surgical Journal.*

EFFECT OF VIOLENT PAIN.—Mantegazza (*Hirsch Jahresbericht,*) by experiments proved that in animals violent pain produced loss of appetite, dyspepsia, nausea, arrest of the digestive process, vomiting and diarrhea, and if continued, great weakness and considerable loss of weight and greater sensitiveuess to all injurious agencies. In man we find that severe neuralgio pain produces dyspepsia, want of appetite, coated tongue, pallor and anæmia, weak pulse, cold extremities, depressed, excitable states of the system, great sensitiveness to external injurious influeuces.

DOMESTIC ECONOMY.

The Beef We Cook.

I propose to examine beef as a representative of all kinds of animal food. A piece of fresh beefsteak weighing four pounds can be so thoroughly dried in the sun that only one pound will be left. The three pounds, or three-fourths of the whole substance, was water. If a piece of lean beef be washed thoroughly it will lose its blood and become a mass of fibrous tissue. Now if this be put into a bottle with alcohol its fat will be dissolved out of it and the fibrous mass will become drier and more compact than before. Thus deprived of its water and its fat it is less than one-third of its original weight, and is called by chemists fibrine. This fibrine in its composition and properties is almost entirely identical with the gluten of the plant. After we have removed the small quantity of blood as indicated, our beef is composed of three substances, water, fibrine and fat. Wheaten flour and bread have also water and fat, and gluten, which is identical with fibrine. The main differeuce between beef and bread is, first, flesh contains no starch, which constitutes nearly half the substance of wheaten bread; and secondly, the element of fibrine (or gluten) in ordinary flesh is about three times as great as in ordinary wheaten bread. One pouud of beefsteak, therefore, is as nutritive as three pounds of wheaten bread, so far as the ingredient affords nutrition.

Animal food contains four times as much of what I may here call gluten, as the most nutritive of our grains, but it is entirely destitute of starch, as I have intimated, which in dried oat meal forms seven-tenths of the entire weight. But in the beef and mutton met with in the market, from a third to a fourth of the whole weight consists of fat. This fat represents and replaces the starch of vegetable food. Hence flesh holds its place, as compared with vegetable food, as much more nutritious.

Fish is generally less rich in tat than the fresh meat in our markets, and hence has more fibrine. And whenever the proportion of fat is small, we endeavor to increase it by art, either by feeding the animal, or by using other fat substances with the lean flesh. The egg is near allied to flesh and fish. It consists of three parts—the shell, the white and the yolk.

The shell, which forms about one-tenth of the whole weight, is composed of carbonate of lime, and serves for protection. The white, known to chemists as albumen, makes up about six-tenths, and the yolk about three-tenths. The egg is richer in fat than fat beef, and yet the white of the egg contains uo fat. Much the larger part of the entire egg is water. The albumen of the egg needs to be eaten with fat to be healthy. Hence, "bacon and eggs" have been a popular dish among Gentile nations from the earliest times. Milk, another nutritious form of animal food, contains more water than either beef or eggs, but not so much as the turuip or melon. Milk yields butter (or fat) and curd (or cheese). Curd may be classed with gluten, fibrine and albumen, as a nutritive substance. The manufacture of cheese is very extensive, which indicates the importance of a mixed food, as it is seldom eaten alone, and serves as a pleasant and useful condiment, taken in small quantities with or after the usual meal.

Cookiug meats, as is the habit in civilized life, is always at a loss. In boiling four pounds of beef there is one-quarter shrinkage, in baking three ounces, and in roasting five ounces more. Salting meat is necessary to preserve it for future use, but the process diminishes its nutritive qualities, and this is the reason why long feeding on salt meat affects the health. From the analogy which is found to exist between the vegetable and animal forms of food on which we live, and the fact that deficiencies found in the one are always supplied in the other, we may iufer that it was designed that man should not live on bread alone, but should gather his substance from these two kingdoms of nature.—*H. W. Orcutt, in Western Rural.*

COLE SLAW.—Take half a head of white cabbage, cut it into fine shreds, and put into a bowl or deep dish. Add the juice of a large lemon and two spoonfuls of cold water, and stir together; then sift evenly over the cabbage three or four table-spoonfuls of granulated sugar; shake the dish so that the sugar may be diffused, but do not stir it again. Let it stand 10 or 15 minutes and then serve. Grape or currant vinegar is very nice instead of lemon, and a preferable acid with many.

CORN OR BROWN BREAD.—The sponge is made of unbolted rye or wheat. In the morning take four quarts of Indian meal, make a thin batter, using hot water. Let it stand half an hour to swell; then pour in the sponge and one quart of molasses, three quarts of rye meal, or enough to make a stiff batter; then put into covered dishes to rise. Bake three hours.

CORN CAKES.—Pour hot water on to corn meal to make a stiff batter; let it stand over night. In the morning add milk to thin it, then stir in graham flour, in which is a little baking powder, until it is the right consisteuce for baking. Bake them in gem pans, and they will be light and nice, with a very small proportion of yeast powder.

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Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, December 9, 1876.

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The Week.

The result of the week politically has been the returning of the doubtful States, South Caroline, Floride and Louisiana, for the Republican candidates. Although this on a full count would give the Republicans a majority of one electoral vote, the matter is not yet settled, for in some of the States doubts have arisen concerning the qualifications of the electors, and the end is not yet. A dispatch to-day (Wednesday) states that the Governor of Oregon has given one of the electoral certificates to a Democrat and this gives an apparent majority of one to Tilden. The result bids fair to abide the final canvassing by Congress.

Our Agricultural Relations with England.

An English correspondent on another page of this week's PRESS surmises that items of English agriculture may be of interest to Californians. He is right. Not only have our farmers a generous interest in others of their class in other countries, but we have among our most successful and enterprising ranchers men who have come here directly from the "old country," and are demonstrating by their success that the English agricultural spirit, by its methods of accurate calculation and careful investigation, can be profitably employed in the agriculture of our State. As we are forced to depart from the old chance system of farming, we shall come to perceive that the English rotation and diversification and close economy of production will be our most valuable aids to success. The quality of our soils and climates may not enable us to adopt the exact steps of English progress in agriculture, but the spirit embodied in them will be found to possess great adaptability to our needs. We shall have to learn our own lessons doubtless, and thumb our own dictionary of senses and results, but the spirit of study and research which enables England to lead in the development of the science of agriculture will advance our prosperity and point our way to new successes.

There are other and more direct reasons why we look with deep interest upon the course which English farmers are pursuing. So long as we grow wheat for English eaters we must look upon England with something of the interest which a wide-awake merchant has in his customers. The disposition and deeds of our English customers are of great importance. As we see them greatly reducing their wheat acreage and devoting their fields to other production than that of breadstuffs, we see surety that in the need of greater importations of these supplies we, with other wheat-growing States, will find good market for our crops. This year the demands of the English markets are just what we needed for the disposition of our large crop and increased shipments of wheat. The price of wheat from this cause has increased steadily since the beginning of harvest, and now stands at a good margin above the cost of production. The troubles in the East have of course done much toward the improvement of the breadstuffs market, but even without this cause there would have been a good market from English needs alone. The advance would have been more tardy, but it would have come before the new crop. This view we have advocated since the earliest news of the English crops came to hand in September, and there is renewed reason for the belief now. English wheat growers are looking to the shortage to give them a chance for more remunerative prices, and our interests in the way of an advanced price are identical with theirs. We read in our English exchanges that the wheat growers at a late meeting decided that the needs of the kingdom for imported grain are greater than has been estimated heretofore. At a recent meeting of the Severn Valley farmers' club, Mr. R. Woodward, one of the wheat prize takers, spoke as follows:

"Mr. Caird puts the crop of the United Kingdom at 10,600,000 quarters, but I differ from him. It does not require the cleverest pupil of Cocker to ascertain that Mr. Caird puts the wheat crop of the present year at 27 bushels to the acre. I dissent from Mr. Caird's views in that particular. I do not believe the crop will produce anything like 27 bushels—that is nine Worcestershire bags to the acre. My idea is that the average of the United Kingdom will not exceed eight bags, or 24 bushels to the acre. I have put the present year's crop at 24 bushels to the acre, or 15 per cent. below the average, while Mr. Caird estimates it at 27 bushels, and yet we do not arrive at very different conclusions as to the requirements of the country. We require 11,500,000 quarters from abroad to provide us with food up to August 31st next, and as it would be unsafe to be left at that time without any old wheat on hand, I say that we should import 13,500,000 quarters, so as to carry us through the year, and have sufficient to mix with the new wheat of 1877. The population of this kingdom is now estimated at 33,000,000. I estimated the probable consumption last year at 22,000,000 quarters, and allowing for the increase of population I put this year's at 22,500,000 quarters. I therefore think that unless we import 13,500,000 quarters we shall not be in a safe position. It is hardly possible to contemplate a supply of 14,000,000 quarters of foreign wheat year by year. Therefore, I think that, as we shall require at least 13,000,000 for the ensuing year, it is likely we shall see a little advance on the present price. I am not sanguine of high prices—assuming there will be no outbreak of hostilities—but I believe we are be warranted in expecting, from the superior quality of the grain, better prices than we are now receiving."

News of this kind from England is indeed an interesting matter. It sheds a bright prospect upon the considerable increase of acreage which we are putting under the plow this year. Reports from nearly all the wheat growing regions is that never before were seen such wide acres of cultivated land. It is true that the season is as yet all wrapped in uncertainty, and fears are expressed in many parts of a dry winter. In the Upper San Joaquin valley there is a drouth already, which retards the plow and restricts growth on stock ranges. It is not, however, likely that the amount of rainfall will be so small as to cause a general failure of crops, for by the generous drenching of last year a profitable growth can be secured this year upon a lighter rainfall. The outlook is, upon the whole, very favorable, both for the growth and sale of the crop of 1877. The consumption of the world's grain supply during the winter will make a great inroad upon the stocks now held. The famine in India, which we are told will divert the Calcutta wheat to Bombay instead of England; the unsettled condition of affairs in southeastern Europe will detract attention from production, and the chance that the spring will unlock the armies when it opens the Russian rivers, are indications that we shall have a grain market which will seize the first sacks from the separator at a price very profitable to the producer.

As it is to-day, the advance in wheat which was noted last week has been firmly held, and the Liverpool market as telegraphed this (Wednesday,) morning, shows an additional improvement in current rates. This is a very healthful sign of the times in wheat and seems to indicate that our relations with England, until next harvest at least, will be of exceeding advantage to those in whose hands the wheat now rests. We wish it might be the hard working producer who will find his pockets heavy from this time of good prices.

Flax Seed and Fiber.

We are glad to be able to announce that arrangements are now perfected in this city by which flax will become one of our most promising crops. Heretofore there has been a steady demand for the seed and many farmers have done well in its production. Now it will be possible to market both seed and fiber and the value of the crop will be greatly enhanced.

We will notice first the growing of flax for the seed, because this is the end which has been thus far pursued in this State. The Pacific oil and lead works, 202 California street, San Francisco, have issued a valuable pamphlet on this subject. They declare themselves ready to contract for the next year's crop of flax seed and castor beans "at such rates, that with proper cultivation on suitable land, will make them the most profitable crops grown." The pamphlet contains a number of letters from farmers who have grown these crops. Among the successful raisers of flax seed this fall, 1876, are Messrs. R. D. Pease, Horace Gould, M. Pomeroy, E Harlan and J. H. Ebi, of or near Hollister; James H. Jacobs, of Santa Barbara; Orrin Brown, of San Mateo and Half Moon Bay; and J. H. Fleckinger, of San Jose.

Mr. Fleckinger writes a letter which is so full of accurate and practical information that we print it entire, as follows:

Immediately after the first rains, when grass and weeds are well sprouted, plow well, harrow and cross-harrow to pulverize the soil thoroughly. The main feature in flax growing is to have the soil perfectly pulverized and mellow. Two weeks or 20 days after the first plowing, when the weeds and mustard are well sprouted, harrow twice to kill all foul growths; immediately sow the flax, harrowing once after sowing. Upon good soil sow from 35 to 40 pounds per acre, taking care that the seed is perfectly clean. If soil is alluvial or mellow, would advise rolling the ground after sowing; but if the soil is heavy or adobe, would not roll it, as it would injure rather than benefit.

Flax, in the interior counties—say Santa Clara, along the Sacramento and interior rivers—should be sown at any time from the 1st of December to the 10th or 15th of January. Flax should make its principal growth from January 15th to April, before the hot weather, to insure the filling of the boll to from eight to ten seeds to the boll. By early sowing, as above, the flax will mature in the first hot weather, last of April, or in May, and make a plump heavy seed, and a fine yield of flax; whereas, sown in March or after, my experience is, that the flax must then make its growth during the hot weather, which will shrink the boll. If the ground is very moist, the flax will grow, but the bolls will not fill well. Objections have been made to sowing early in consequence of danger from frost, but I do not think that flax is any more liable to this injury than wheat or barley when the heads first come out of the boot. I have known both these grains destroyed by the frost at this stage of the crop.

I prefer the clipper for cutting flax, it being the cheapest mode of cutting and stacking. Reaping makes too much extra work in gathering and stacking, besides scattering the flax in loading and hauling to stacks. Threshing flax is a business very few farmers are familiar with, and requires attention to save the seed effectually. You must not have less than eight rows of concaves in your cylinders, and they must be minutely adjusted and fitted not to grind the flax seed; the thresher must be perfectly free from cracks or splits, otherwise the seed will escape. The Vibrator, with flax sieve attached (square mesh, No. 7), is the best machine to thresh flax with; leaves it in a cleaner condition, and requires less work in recleaning than the fan mill.

I find, after experimenting with several fanning mills, that the Nash & Cutts fan, No. 2, is the best rigged for cleaning flax, as follows: Take the wheat sieve out of bottom of machine; substitute mustard sieve, which will take up all small grass seeds and mustard. Take out two upper sieves of combination, and replace for top one square mesh No. 7, which will take out wheat and oats, and for second sieve, square mesh No. 6; replace the whole combination, which prevents the flax from blowing over behind the machine. With a No. 2 machine three men can clean from 100 to 150 sacks per day.

I shall put in a large crop this coming season.

The Market for Fiber.

The chance to turn the fiber to profit is afforded by the organization of a company to manufacture flax in this city under the name of the "West Coast flax mills." This company is prepared to go to work at once. As was noted in last week's PRESS, Mr. Crane, who is manager of the company, has procured the entire crop of Miller & Parrish, of Oregon, gentlemen who secured a medal at the Centennial for their flax exhibit. The company has also on the way shipments of flax fiber from Australia and Canada. This company announce themselves as ready to contract for the crop of 1877, and say that they will buy all that can be raised. The price which they offer is from 4 to 15 cents per pound according to quality, and they inform us that a first class article may be safely quoted from 9 to 15 cents per pound. There is no danger of producing the fiber in excess, for there is a local demand for flax products, which in the case of bagging twine alone consumes $100,000 worth per year in this market. The Eastern States use from eight to ten million pounds of the fiber, and the Scotch manufacturers have been on this coast this year to see if they cannot obtain supplies of the material here instead of depending upon Russia for it.

The flax fiber produced in this State is as good as any grown in the country. In the matter of yield it is fully believed from the results so far gained that 500 pounds of this fiber can be produced per acre, while in New York the average is but 300 to 350 pounds. The money from this part of the crop may be counted chiefly as profit, for the seed will generally pay for the growing of the crop.

The preparation of the flax fiber for the market, we are told, is exceedingly simple, requiring but the simplest appliances and the cheapest labor. Flax pulling will meet the Chinese idea very well and in this respect the California grower will have an advantage over the Eastern producer. The preparation of the fiber is to be begun soon on the grounds of Mr. Orrin Brown, of San Mateo, who has this year produced about 3,000 sacks of perfectly clean seed and will now turn attention to the fiber. We doubt not that any one who is interested in the process can see it on Mr. Brown's land.

We shall doubtless refer to this matter in the future as we get notes of the progress of the enterprise. It is a matter which we have often mentioned as a desideratum. When we get into the production of textiles and the manufacture of the articles for which we are now paying millions to foreign nations our soil will be better employed and our exports of coin reduced. As it is, the present article is intended merely to call attention to the new facts which we are enabled to present, and anything further which our readers may desire they may seek of the Pacific oil and lead works or the West Coast flax mills, or they may submit their queries to us and we will secure the needed information.

The Poultry Ring.

We lately made a note of the manufacture of a reprehensible piece of trade jewelry called the "poultry ring." It is ostensibly for the protection of the retail dealers in poultry, but has already assumed a dictatorial policy, which, as we feared, will operate against producers of poultry by restricting trade and forcing commission merchants to neglect the interests of their consignors and pay obedience to the "ring." The *Call* notes the recent action of this organization as follows: "A meeting of the retail poultry dealers, association was held last evening for the purpose of ostracising one or two commission firms who had presumed, in violation of the rules of the society, to sell cases of dressed turkeys to butchers for their Thanksgiving trade. We understand that the association resolved, by a large majority, to cease trading with the two receiving house in question. The actions of the members of the combination have recently been somewhat inconsistent, at least they appear to make rules for the guidance of commission merchants, but which they violate with impunity themselves, as instanced in their refusal to abide by the agreement, which they all signed, to take surplus game, after the trade had been supplied, at a stated low scale of prices. The public can have no sympathy with a combination of this kind. It is against the interest of both the producer and consumer. We are informed that the cause of the unusually high rates which prevailed for turkeys at Thanksgiving, was the withholding of supplies by shippers, through fear that the combination would, if the stock was large, fix the rates they were to pay at ruinously low figures. It is, of course, as easy for the association to fix the prices as to dictate who the commission merchant shall sell to."

Queries and Replies.

Olive Growing.

Editors Press:—There are several of our citizens who are considering the advisability of planting olive trees, but while they have evidence that the tree will grow finely here, they hesitate because of the uncertainty in regard to the demand of the fruit. Can you (or some correspondent) give us reliable information in regard to the demand for them; whether it is so great as to warrant the extensive planting of the tree; also, the age at which they could he expected to yield good crops.—E. W. Holmes, Riverside, Cal.

These questions can best be answered by some of our Los Angeles readers who have tested the market and know its capacity and profit. Will they favor ns with their experience?

Speaking generally we can say that there is a large sale of pickled olives in this city, and large qnantities are imported. It seems to us the greatest opportunity is in oil. We showed a few weeks ago that by reason of the general adulteration of olive oil now in the market there might be a chance for a brand which could be depended npon as genuine. Since receiving the above query, we had a conversation with one of our leading fruit merchants on this subject. As we mentioned oil, he said it would not pay to grow them for oil, because olive oil could be made of mnstard seed, etc. "Very few olives," he said, "are used for olive oil." This wide-spread adnlteration of olive oil, we think, will soon prove the best opportunity for the manufacture of a pure article in this State. The expression of the oil from the fruit is, we understand, a very easy and cheap process, and we think there will come a demand for native brands in the place of the spurious article which is sold under foreign names.

We find in the *Index* the following interesting item concerning this year's olive crop in Santa Barbara: "Dana B. Clark has shown us a sample of his olives of this year's crop from his orchard in Montecito. A thousand trees, five years old from the cuttings, standing on ten acres, have yielded about 500 gallons of berries. Nearly all the trees have fruited a little, but the 500 gallons of berries is the beginning. Their value on the trees is about 50 cents a gallon. What is raised on the land between the young trees in the way of beets, onions, squashes, etc., pays the expense of cultivation. Let us see what is the value of a full-bearing olive orchard, when planted in a good location. The full-bearing trees in the Santa Barbara Mission orchard, in the Mission San Juan Capistrano and San Diego orchards, and elsewhere in good soil and good locations, year in and year ont, will yield, on an average, about 20 gallons of berries to the tree, or three gallons of oil. To manufacture the oil will cost about one dollar a gallon. Taking the first-class or virgin oil, with the second and the third, the whole will net $3 per gallon, or $800 per acre, about the same as to sell the herries for pickling. There are not a sufficient number of bearing trees in and around Santa Barbara to justify the establishment of the best means to manufacture the oil, and so the berries are at present all pickled for table use. A few years hence, when more trees are bearing, and the market for pickled olives more than supplied, then the manufacture of olive oil on a considerable scale may be commenced."

The "Bull's Head."

Editors Press:—I was quite pleased to read Mr. Saxe's advertisement in your columns, of his "Bull's Head." It was only last winter that a retail butcher was telling me that we, who sold stock, would never get the fair value of our produce until this system of buying and selling by guess work was done away with, and a Bull's Head established, as it is in Eastern markets, where stock can be put on the scales and sold by live weight. There is no room left then for chaffering and "jewing," and no mistrust as to weights and prices as there may he with cattle slaughtered on commission. I would like Mr. Saxe to give us, through your columns, a detailed statement of his charges and mode of doing business, and I hope all farmers will make a point of selling their stock only by gross weight at the Bull's Head, so ensuring the success of Mr. Saxe's welcome enterprise.—Edward Berwick, Monterey, Cal.

We are also quite of the opinion that an open sale of beef cattle will be greatly to the advantage of producers. Will Mr. Saxe give the desired information?

Cure for Lice on Hogs.

A querist lately asked for a remedy for lice on hogs. We find the following in the *Live Stock Journal*: "Various remedies are recommended for lice, and some are excessively dangerous, especisily the preparations of murcnry and arsenic, the skin of most animals being extremely sensitive to the action of these agents. We have freqnently recommended the following formula as being both safe and destructive to lice: Staves acre seeds, four onnces; white hellebore, one ounce; boiled in a gallon of water until only two quarts remain. Apply with a brnsh to the parts where lice are seen. A decoction of tobacco may also he tried. On no account should mercurial or arsenical preparations he employed in these cases, as, from the great extent of surface to which it is often necessary to apply the dressing, death has freqnently resulted. The above dressing may be repeated after ten days. Another remedy which has been found highly efficacious is an application of kerosene, which destroys the parasite as well as its eggs instantly."

Aughinbaugh Blackberry.

Editors Press:—Will Mr. Aughinbaugh, who advertised the blackberry last January, please give proper directions for the training and cultivation of the same through the Press? I find they are a running vine and take root like the black raspberry. Now, what we wish to know, is: 1st, should it be trained up from the start; 2d, will the frost injure it if trained up now; or 3d, would it he better not to train it up till spring?—Caleb Cadwell, San Jose, Nov. 28th.

Will Mr. A. favor us with a reply?

Women of Tehuantepec.

Now that renewed attention is being paid to the project of a ship canal across the isthmus, all matters existing there have some interest. We give on this page an illustration of Tehnantepec women, of whom a recent writer says:

The women, as a general thing, are good looking and cleanly and some we might call handsome. Their dress is exceedingly primitive and original; a piece of cotton cloth of their own manufacture, containing about six yards, is confined to the waist, and falls down to the ankles; while the breast is covered with a loose, thin piece of calico called *huepil*. Their head-dress is indescribable, but, at the same time, an important part of their attire. The cotton cloth, which they manufacture on small hand looms, is a very good article of the kind, and on acconnt of the rich dye with which it is colored, is very expensive. The women do all the vending in the market—in fact almost all the traffic in the place; and it is not an unfrequent occurrence that you will see the streets full of women, pas·ing and repassing to and from market, carrying on their heads (upon which they carry everything,) their purchases, or their wares to sell, to the entire exclusion of men. There seems to have been no interest taken in advancing the civilization of these truly apt people; on the contrary, they have been kept back; and it is really to be lamented that they have retrogaded from



ZAPOTECA WOMEN GOING TO MARKET.

that progress of civilization which they had attained under the rule of the Montezumas.

California Almonds.—The *Call* has the following note: The production of California almonds is rapidly increasing and will soon begin to assume a prominent place in our list of exports. The crop this season is larger than ever before, and is believed by those in the trade to be sufficient to snpply the home consumption. The first of the new crop arrived September 12th, and the receipts thus far have been 835 sks. of about 60 pounds each, or 50,000 pounds. There is, doubtless, a considerable portion of the crop still to come forward, as the arrivals last season were quite liberal until February. This large quantity of nuts has found ready sale at 16@18 cents for soft and 10@12½ cents ℔ lb for hard shell. The bulk of the crop consists of the Languedoc variety, which is the only one recommended for cultivation by experienced growers. The largest almond plantation in this State is that near Hollister, formerly owned by Flint, Bixby & Co., of this city, but now the property of another party. This orchard is said to contain 40,000 trees. The next largest plantation is that of Colonel Hollister, of Santa Barbara, consisting of 25,000 trees, besides which, in the same neighborhood are others of from 5,000 to 10,000 each. General Bidwell, of Butte, is also a large producer, having a plantation of several thousand trees. When all these trees get to producing 10 pounds of nuts each per year, as they are expected to do, whole trains of cars will be loaded with them for the Eastern States.

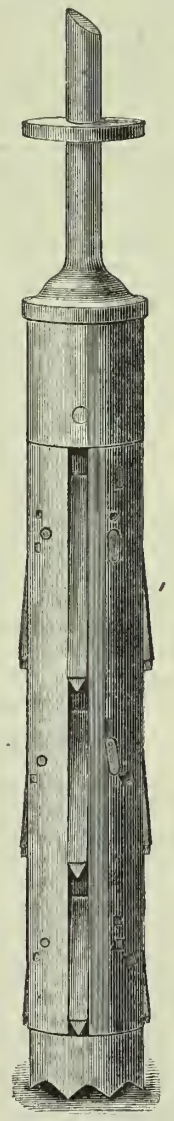
Lecture on Tree Planting.—We learn that Prof. W. A. Sanders will soon deliver a lecture on tree planting before the high school class of Scottsburg and Centerville schools and at the Central California colony. We trust the Professor will favor us with an abstract of the lecture for publication.

The misery in Belgrade is said to be terrible. Hundreds of people are on the verge of starvation.

Improved Artesian Well Borer.

Considerable difficulty has heretofore beeen experienced in boring artesian wells, for the reason that frequently, at the depth of several hundred feet, very hard rock is reached, in which the ordinary form of drill usually employed fails to cnt a bore of sufficient size and regularity for the well pipe shoe to pass through. To obviate these and other defects, John A. Woodhouse, of Anaheim, has invented and recently patented through the Mining and Scientific Press patent agency, a drill which, by reason of an arrangement of automatically expanding or projecting side drills and chisels and a main center drill below such arrangement of side drills, will insure in every instance a bore of sufficient size and smoothness.

The main center drill of this device, illustrated herewith, is mortised to the lower end of a cylinder in such a manner that while it will be held securely in place during the drilling operation, it may be readily detached there-



Woodhouse's Artesian Well Borer.

from when necessary. This may be accomplished by means of bolts provided with spring catches or locks, conveniently arranged to maintain the tenons securely between their mortises. The mortises in the drill are so formed that passages shall be left therein for the influx of water and drillings into the cylinder through a valve located in the lower part thereof.

The cylinder is constrncted with three series of longitudinal recesses or compartments, each series embracing about ten compartments, at such distances apart that the cutters pivoted therein may thoroughly cut away such rock as may have been left by the main center drill. The side drills are pivoted at or near their npper ends within the said compartments by bolts or pins, or by a rod passing entirely around the cylinder. Said drills are provided with a drill or bit, and also a cutting blade or chisel located higher up on the shank and serving to smooth the walls of the well, which may have been left by the lower drills in a rough condition.

These side drills also rest upon springs, which are proportioned in strength to the work to be done, and tend to press the said drills and cutters outwards to the working point during operation, which is practically a vertical and slowly rotating movement of the device. During any movement, however, of the device within the shoe of the well-tube the drills and cutters are compressed and fit snugly within their respective compartments, the springs being usually compressed within a recess formed by cutting away a portion of the lower side of each drill.

The chisels are intended to be made separate from the drills and to be secured thereto by bolts or suitable mechanical means.

A metal disk somewhat less in diameter than the cylinder is secured to the upper end of the same as shown by short rods or studs, so that an open space shall be left between the two. A screw bolt is fastened in this plate and is the medium through which the drilling device couples with the usual working shaft. The lower end of the working shaft is provided with a guide disk which maintains the drill in a steady central position and couples with the said rod.

When rock or other substances is reached which necessitates the use of this construction of drill, it is conpled with the working shaft as described, enclosed within the shoe or lower cylindrical case of the well-tube and sunk to the bottom of the well; after this the shoe is raised above the several series of side cutters and the operation of drilling commences. The side drills will be kept wet by water, which usually will flow over the top of the cylinder, but in case no water is reached it can be supplied from above.

New Publications.

We have received from N. W. Ayer & Son, the well known advertising agents of Philadelphia, a copy of the second edition of their Manual for Advertisers. It is a very handsome book of 128 large octavo pages, 16 of which have been added since the first edition was published. The work contains a full list of all religious papers published in the United States and Canada having any value to general advertisers, a list of the leading dailies of the country, with estimated circulation and political tendency of each, a carefully prepared selection of literary and political weeklies and information about the agricultural publications of the country, and very complete lists of Sunday school, educational, musical and medical publications, and popular magazines, as the Manual is intended to be of practical service to every advertiser. Sent postpaid to any address, upon application to Messrs. N. W. Ayer & Son, advertising agents, *Times* building, Chestnut and Eighth streets, Philadelphia.

Mr. E. Steiger, publisher, 22 and 24 Franklin street, New York, has just issued Schedler's map of Turkey and Greece, with special maps of the Black sea, Constantinople and the Bosporus. Drawn by Joseph Schedler. Size, 19x24 inches; carefully lithographed and colored. Price, folded and in cover, 25 cents. This map is compiled from the very latest material and is geographically correct, having the railrosd lines, etc., distinctly indicated. It comprises the whole of Turkey in Europe (including, of course, Servia, Herzegovina and Montenegro), Greece, the northwestern and northern portions of Asia Minor, the Caucasns, the Black sea, Southern Russia, Roumania, Southern Hungary, etc. The map affords a complete and reliable representation of the scene of the present Eastern complications, and will enable the interested observer the better to understand the situation of affairs, while proving also a safe guide in following the future course of events, whatever shape they may assume.

We have received from A. Williams & Co., of Boston, "The Poetical and Prose Writings of Charles Sprague." It is a new edition with a new portrait and biographical sketch. Mr. Sprague was a writer of the last generation, the latest piece in the volume bearing the date of 1830. The book has a peculiar interest as reflecting the thought and literary style of the early part of the century, when American books were few.

A budget of new music received from McCurrie, Weber & Co., 213 Kearny street, S. F., reminds of the excellent and varied stock of sheet music which this firm is bringing before our music loving public. "O Jennie, Meet Me at the Gate," is a song composed for Annie Louise Cary, and is well worthy her distinguished consideration. "Charlie Machree," is a descriptive song, one of Mrs. J. H. Long's musical monologue entertainment series. "The Little One's Asleep" is a tender ballad by Fred. Tei Linden. Four popular songs are by George W. Marston. A new sacred quartette, with tenor solo, by E. W. Hanscom, weaves the words, "Come Unto Me, Ye That Labor," etc, into an effective composition. "Calm Be Thy Sleep" is a beautiful solo for alto or baritone.

Reclaiming the Colorado Desert.—At a meeting of the Academy of Sciences, held this week, Dr. Wozencraft, the originator of the plan to reclaim the Colorado desert, was introduced and gave an interesting account of the scheme. According to his theory the desert was once a portion of the bed of the gulf of California, but the deposits brought down from the mountains by the rivers formed a bar that eventually cut off the waters at what is now the head of the gulf, and what remained was gradually evaporated. The desert has been shown by the surveys of Lieutenant Williamson to be over 70 feet below the level of the ocean, and by turning the waters of the Colorado into irrigating canals around the borders of the desert, the land can be utilized for agricultural purposes. By thus reducing the temperature a rainfall will be caused over the desert and the adjacent counties of San Diego and San Bernardino in California. Dr. Wozencraft expects to obtain assistance from the Federal government in carrying out his project, and has sent bills to be introduced before the next Congress, providing means for prosecuting the work.

Sacramento Female Seminary.—We have received the circular of this institution from Mrs. Hermon Perry, principal. The next term will begin January 8th.

Continued from Page 379.

some of the other food mixed with it. Mr. L. found among other results that Indian corn or barley meal, with a limited supply of bran, was very good food, the bran adding to the value of the manure. In cases where the pigs had access to three kinds of food, viz., the highly nitrogenous pulse mixture, the non-nitrogenous Indian meal, and bran, which is moderately nitrogenous, they gradually discontinued the proportion of their consumption of the first as they approached maturity, and throughout only consumed five per cent. of bran. The average consumption of corn per pig per week was 60 pounds, or about nine pounds per day, which produced from 10 to 12 pounds of meat per week, or about one and a half pounds per day. There was a very rapid decrease in the rate of consumptiou of food to a given weight of animal as it fattened. The nearer a fattening animal approached maturity, the greater was the proportion of fat in the gross increase obtained. Indian corn and barley meal, Mr. Lawes said, contain less than two per cent. nitrogen, bran about two and three-fourths per cent., beans and lentils about four and one-half per cent., and dried codfish six and one-half per cent. Mr. Lawes found that the larger the proportion of nitrogenous compounds in the food, the greater was the tendency to increase in frame and flesh, but that the maturing or ripening of the animal, in fact, its fattening, depended very much more on the amount of certain digestible non-nitrogenous constituents in the food.

It also appeared that some of the cheaper highly nitrogenous foods would produce a given amount of gross increase more economically than the expensive ones (peas, beans, etc.), which are usually preferred by pork feeders. "If the amount of gross produce of meat," said Mr. Lawes, "in return for a given amount of food, of a given money value, is alone to be taken into consideration, then, in addition to roots, wash, etc., it would be most advantageous to rely for fattening upon highly nitrogenous food, such as dried fish or animal refuse, or leguminous seeds, beans, lentils, and the like; because not only would the weight be obtained at less cost than by the use of cereal grains, but the manure, the value of which must never be lost sight of in calculating the economy of the feeding process, would be much richer than if the latter were employed. It is the interest of the farmer to use highly nitrogenous leguminous seeds, and even refuse flesh, if at command, during the earlier and growing stages of his bacon hogs. But if a constant market is to be secured for pork, barley meal or other cereal grain must supersede everything else as fattening proceeds."—*London Live Stock Journal.*

HORTICULTURE.

The Orange Scale Bug Question.

EDITORS PRESS:—With your permission I propose to keep this orange scale bug question rolling until we understand better than we do how to deal with this great enemy of the orange. But the scale bug is not confined to the orange. I believe it is the same insect which is now ravaging the olive orchards of southern California. It is the scourge of the oleander, and infests the greenhouses of the Eastern States. The pest seems to be rapidly extending, and unless checked will ruin nine-tenths of the orange trees of this State. It has destroyed wholly a number of orchards in Florida, in the Philippine islands, and many trees in this State. How much more widely the curse has extended I know not. But I wish to inquire of the old orchardists of Los Angeles and San Bernardino how long it has been since the insect appeared on this coast? Does the tree when once infested ever slough them off unaided by man? What remedies are found most effective?

As to the origin of the scale bug, Mr. Russell, of Riverside, says: "The damp fog of the coast valleys seems to me to produce the scale bug on orange trees grown in those places." I presume he means that the fogs favor the insect which deposits the egg from which the scale bug is hatched, and favors its subsequent vigor and spread. For surely the fog could no more produce a scale bug than an abalone. Perhaps friend Russell is right. But let me ask him why it is that the scale bug has almost totally destroyed the olive orchards of Santa Barbara, while the olive trees of San Buenaventura—some of which are 50 years old—are perfectly free? Surely not because Santa Barbara has more fog than San Buenaventura. I fear the fog theory and the damp ground theory will not stand the test of facts, for I have seen old trees, growing not far from the sea, in a low river bottom, steaming with almost perpetual fogs, yet perfectly free from the bug. Riverside, no doubt, is very favorable to the growth of the orange; but the trees in Riverside are all young, and have been stimulated to rapid growth by the hot inland air and abundance of water from its ditches. And rapid growth seems unfavorable to scale bugs.

By and by, as they get older, this rapid growth will be retarded, and then look out for the scale bug. I hope I may be mistaken, but I fear my friend Russell will yet find these imps of the orchard blighting the glory of his beloved Riverside Eden. Was there not a time when as much could be said of Los Angeles and San Gabriel? I am very anxious to hear from the old orange growers of the State on the subject. Although the orange is not a specialty with me (the apple being my hobby, if I have one,) yet I am jealous of the honor and integrity of the orange. I regard it as the crowning glory of any orchard. Peerless it stands among fruit trees for beauty of head and form, for its bright, glossy and ever green leaves, for fragrance of flowers and for beauty and lusciousness of its golden fruits. Added to these qualities the fact that its fruits ripen in midwinter, when all other fruits have disappeared from our tables, and it continues its daily offerings until the other fruits return again. The eye that has seen a full grown orange tree laden with fruit, has seen a sight never to be forgotten, "a thing of beauty and joy forever." Let us rescue it from the scale bug and preserve it for our homes. S. BRISTOL.

San Buenaventura.

The Scale Insect in Florida.

Mr. Bristol alludes to the ravages of the scale insect in Florida, and in this connection we introduce a paragraph on the subject from an essay read last September before the Florida Fruit Growers' Association, by E. L. Darcy He says:

"As to the insects that are injurious to the orange tree, I consider them almost entirely as incident to an unhealthy condition of the tree, brought about by improper planting, or being put out in new, sour, undrained land, when the tree becomes puny, and, like the human system, is subject to disease, or depredations of every kind, and, unless assisted, becomes exhausted and dies. As to the scale insect, and a small, white, snail-like insect, they may be destroyed by the use of the insect washes, strong solutions of guano, a wash of carbolic or whale-oil soap, or even common or soft soap, made from hickory or blackjack ashes. One wash will not be sufficient to eradicate them all, but it may and will, in some cases, require two, three and four successive washings to reach them all. These washes are as effectual in giving the tree a vigorous growth as in actually destroying the insect. I have trees 27 years old from the seed that have had the scale insect on them from the time they were six inches high; all that has ever been done to them has been to give them the sweepings of my yard and an occasional load of swamp muck, and, until they shaded the ground with their own limbs, I kept them well mulched in the heat of summer with dry grass, weeds, or leaves, and I do not believe there can be many better trees shown of their age in any country."

[We trust our orange growing readers will contribute their experience in answer to Mr. Bristol's queries. Let us have all the causes and conditions presented.—EDS. PRESS.]

Florida Orange Notes.

In an editorial in the *Florida Agriculturist* we find the following: Old orange growers give the preference to two and three-year-old trees for setting out. They can be easier trained. Newcomers are anxious to get bearing trees as soon as possible, and think they can do this by planting five and six-year-old trees; but an old stager will take a three-year-old tree and beat them in the end. Sour stumps should not be more than one to one and a half inches in diameter; if larger, the bud will not cover the old wood, and the trees are apt to become hollow. When about five feet high the top should be pinched off to allow the tree to spread. This is more particularly required in the budded lemons. To get them as prolific bearers they should be made to spread in a large circumference. Limes will do so naturally. Bud just as the sap is coming up and the bark free. Most failures in the buds taking are due to the neglect of this point, for buds that are put in when the sap is returning downwards are left without sufficient moisture to nourish them. Where irrigation is necessary, one good watering once a week is sufficient. Evening is the best time to apply the water. It is better to water a small number efficiently each evening than to hurry over a grove and give just enough water to scald. There is no stated distance for planting the trees. Most of the old groves are 20 feet apart, and the limbs of the trees meet together. This is now considered too close, and 25 feet is advocated by some people, while others have gone as far as 33 feet. We consider this last rather overdoing the thing, for it will take too many years for the trees to render each other protection. In choosing young trees for your grove pick out those that have a smooth bark from the root up. Knotty trees are troublesome, for every time the sap begins to flow up, suckers start from around the knots, and the sap is wasted there instead of going up the tree. When you have a tree of that kind either cover the knot with a pitch plaster, or cut down the tree near the ground, and grow from the healthiest sucker that starts up.

California Prunes.

Mr. C. T. Settle, the superintendent of the Alden fruit preserving company, of San Jose, informs the *California Agriculturist* that they have this season converted 45 tons of fresh prunes into 15 tons of very excellent dried fruit, worth $280 per ton. The cost of fresh prunes at the factory was $1.50 per 100 pounds. These 45 tons were produced on about 10 acres of land—about 9,000 pounds per acre. This, at the low price of $1.50 per 100 pounds, is $135 per acre for the fruit, which pays very well these times. The expense of the green fruit was $1,350, and the dried prunes are worth $4,200, leaving a profit, excluding labor, of $2,850. The cost of gathering prunes is less than any other fruit crop. Straw or sheets are spread under the trees, and the ripe fruit is shaken off and picked up into boxes and taken to the factory, at no greater cost than so many potatoes, already dug. The market in the Eastern States is good, and all the finest, above supplying the home market, are shipped in refrigerator cars in a fresh condition. They keep so well that they may be even safely transported in good order in ordinary cars. The Eastern market for cured prunes is mostly supplied by Europe, from whose ports immense quantities are sent to New York, and sometimes sold as low as $5 per 100 pounds, after paying a 15 per cent. duty. The fact that we have to compete with European prunes at such low rates is worthy of consideration, and would seem to restrict our production of cured prunes to our home market. Still it is thought that the superior quality of our prunes, cured by the Alden process, will demand an advance over the imported prunes sufficient to encourage the business. In regard to other fruits, the following is about the correct statement of the profits: Five acres of prunes, eight years old, yielded a net profit of $2,000; two acres of Barttett pears, 12 years old, shipped East, a net profit of $1,300; two acres of prunes, dried and packed, a net profit of $900. At the price paid for strawberries last year, they would net the producer something over $300 per acre; blackberries about $450 to $500 per acre; pie plant, which is extensively grown on the garden lands adjacent to San Jose and Santa Clara, will net about $200 per acre; asparagus, also extensively cultivated for the San Francisco market, $200 per acre; grapes, eight years old, from $100 to $300 per acre; currants and raspberries, $300. The cherry crop is the finest in the State.

THE HORSE.

Horse Management.

Probably there is no animal more sagacious or more tractable and easily taught when quite young, than a colt. Bearing this fact in mind, it should be the aim of all those engaged in horse breeding, either for the general market or for the purpose of improving certain strains of blood, to commence the education, so to speak, of the young foal as soon as possible. Foals cannot be accustomed to being handled any too soon, and if taken well in hand before they reach such an age as to make strong resistance, the lesson impressed upon their minds will never be forgotten, and much future vexation and trouble will be thereby be avoided. Some noted horsemen and breeders commence the education of the young foal when it is but two or three days old. At first sight this would seem to be carrying the thing a little too far, but nevertheless, such is the fact, and we have the written testimony of experienced breeders in regard to the advantageous result of so doing, even at so early a stage in the foal's existence. The method practiced by these breeders is to commence when the foal is but two or three days old, and pass the hand down its face, along its back, and down its legs to the hoofs, hind and fore, and thus accustom it to being handled. When it is desired to "halter-break" the colt, the halter should be put on it, and then it should be led about, care being taken at the time not to allow the colt to break away from the person having it in charge. At the same time carefulness and gentleness should be exercised, although it should be made to understand that the person having it in charge is its master.

Too much stress cannot be laid on the importance of attending to the horse's feet. Many a valuable animal has been allowed to become permanently lame through inattention in regard to this matter. One great error is that of allowing the shoes to remain on too long, the result of which is that the hoof is injured, the leg is strained, and consequently lameness ensues. In the winter season especially the injury resulting from allowing the shoe to remain on too long is far greater than in the summer. During the winter season the feet are generally more dry and clean, whereas in the summer they are oftentimes wet, which, in connection with mud and heat combined, rots the hoof, causing the shoe to fall off. It is an actual fact that cases are known where horse's shoes have been nailed on in the fall and not taken off until the next summer, when they would fall off in the pasture! Is it any wonder then that such practice seldom fails to bring on lameness? The time which a horse's shoe should be allowed to remain on varies in the opinion of various horsemen. All, however, allow that a shoe should not in any case remain on longer than three months, and that oftentimes two months is too long. When we look at this question in the light that nature intended that horses' hoofs should go bare, we must admit that great caution should be exercised in this respect. Shoeing the horse's feet stops the wear that nature intended should be on their hoofs, consequently the shoe binds the hoof and causes contraction when nailed too far to the heel or left on too long, or when the hoof is not sufficiently pared down between shoeings, and care should be taken to avoid these things, but it will not always do to trust to the judgment of the village blacksmith.

It is, of course, the main point with farmers to use their horses in such a way as will give them all the strength and agility the animals are capable of, and to work them all they can stand without injuring either of these qualities. Correct feeding is of paramount importance. Nature designed the horse to roam at large and graze for his living, therefore we should aim to have his food as nearly natural as possible. One great secret of success lies in regular feeding. Too high or too low feeding has a bad effect. It is far better, therefore, to pursue a middle course in this respect. Twelve pounds of hay, and from nine to twelve quarts of oats, given in three regular feeds daily, with a feed of raw potatoes once or twice a week, have been proved by experience to produce most beneficial results. In case horses are hard worked, a slight increase in the above amount of feed may be added without detriment; but bear in mind this fact, that hay alone is not fit feed for horses, whether working or idle; they need grain, with an occasional feed of root, sbran-mash, or something to keep their bowels open. No regular rules can be laid down in regard to feeding, quality, quantity, etc., as circumstances alter cases. A poor, half-starved horse is an animal no farmer wants; while on the other hand, an over-fed, pampered beast is nearly as valueless as regards working capacity. —*N. Y. World.*

ARBORICULTURE.

Is the Early Planting of Blue Gums Desirable?

EDITORS PRESS:—"Thar's a pint for you to chalk down," writes Uncle Tommy King, of Stanislaus. "I got stuck on a lot of them ere gol-darned box-grown globus-liptus-yeubus, or sum sich jaw-breaker of a name, down at 'Frisco, and the chap said plant 'em early, plant 'em at once, time is cash and the wust kind of cash, jist as soon as iver you kin run a plow arter the first rains, and all sich stuff. Wull, he honey'd me, un koax'd, un plaver'd around till I jist tuck a ten hundred or so to dry him up; bnt he tol me to plant 'em shaller, to be keerful about that ere pint. Wull, I reckon your a peert chap enough to not disremember the old hump-back Piker coming one rainy morning last year, nigh ont' 12 month since, a talkin' gum trees, and sich like, an how as you recomtended me not to plant them ere blasted box-grown uns, but jist for luck take 'em that's grown in open ground, and wait titl March and plant 'em deep.

"Wull, sais I, that ere chap tells one thing an the 'Frisco chap another, an I'll be blode if one on um don't lie. Howsomever, back I put to 'Frisco, tuck my trees an hum I went.

"Wull, I planted nigh ont' nine hundred, an I kept a thinkin' a heap, 'don't plant till spring;' an sais I to Polly, that's my rib, that ere Petaluma chap's head may be clare arter all, and sposen we keep the tother one hundred till spring an try his way. Wull, she an I allers hitch onter the one idea, an ole yaller draw'd 'em back hum. Wull, March came un the saplins wus hauled out to plant, an jist bet yer bottom dollar a clean 50 on 'em wus sock'd down eight inches lower as they grow'd, an sais I to Polly, hole ou, we haint got trees grown in open ground, but we'll make the best on it, an buck the sile clean out on the roots. So Polly takes 'em by the tops an pulls 'em up, an I cuts that thar long spindlin root off at the jiut (Uncle Tommy evidently means the long tap root which runs down and turns at right augles when it reaches the bottom of the box,) an down I socks it eight inches deep. Wull, by April a heap on 'em that wus planted in November turned yaller, an by June, more than the heft on 'em wus ded, an none had made much headway, that I an Polly could diskivir. And jist here is the pint: them ere trees that did live an planted last fall now are eight feet high, an I hope to holler if I lost only three that wus planted in March. An the 50 we, Polly and I, buck'd the sile, clean out on the roots, staud 15 feet high, an average of three feet more as them ere gol-darned, blarsted, brick bat box-grown 50 we, that is me an Polly, planted at the same time."

I shall not at this time offer any comments on the subject matter of the above letter, further than to notice the universal advice of dealers, as well as gum tree growers, is to plant early, regardless of conditions. There may be some excuse for this apparently disinterested advice, and a sequel may be gathered from the following extract recently received from a brother nurseryman: "How in the world can we work off our immense stock if spring planting is universally adopted? Your ideas are ruinous to the trade; in fact, you talk too much." In my next article I shall state explicitly why spring planting is preferable to fall, will give the exceptions to the rule, and let those who feel aggrieved defend themselves.

W. A. T. STRATTON.

Petaluma, Nov. 26th, 1876.

Tree Planting.

The Superintendent of the St. Paul and Pacific railroad is interested in tree culture. He says:

1. The farmer on the bleakest portions of our treeless regions can, with less ready money than it would cost to buy a breaking plow, surround his stock-yard and buildings with a windbreak, within five years, that will protect him

as effectually as though he was in the middle of the big woods.

2. A crop of trees can be grown as surely, and, in proportion to its value, with far less expense than a crop of corn.

3. Ten acres properly planted in timber, and properly cultivated, will in five years supply fuel for a family in great abundance, and also fencing for the farm of 160 acres.

4. That the most worthless lands of our treeless regions can, through the intervention of the tree planter, be sold for $100 per acre within 29 years.

5. That the net profits on a quarter-section of prairie, properly prepared, planted and cultivated with forest trees, will, within ten years, exceed the net profits of ten quarter-sections of wheat.

6. A single cottonwood seed, though smaller than a grain of mustard, can, by intelligent cultivation, be developed into a oord of firewood within 20 years.

7. That any young man of muscular development and good "horse sense" can accomplish these results, providing always that he is not in too great haste to get rich.

Useful Information.

The Danger in Kerosene Oil.

The *Polytechnic Review* gives an article on the danger in kerosene oil as used in households, and tells how the quality may be tested:

It is simply to be set down to good fortune if one who has employed the light oils for household purposes has escaped injury, since no amount of care can avail against the inevitable result which must follow one accident. It is easy to understand how persons ignorant of the highly dangerous character of the light petroleums may unknowingly make use of them in the manner above named; but it is really a matter of concern and surprise that so many, even of those who are thoroughly aware of the nature of the incendiary they are introducing into their households, are nevertheless thoughtless or indifferent enough to continue the suicidal practice—for no term can be too strong to properly characterize the fearful nature of the risk one is constantly running while employing these oils in the household.

There seems to exist a notion that the explosive or inflammable properties of the light petroleums can be effectually neutralized by adding various substances to them. The patent office records for the past few years contain numbers of claims for such mixtures of naptha or gasolene with a great variety of substances too numerous to mention.

Whether or not the inventors of these recipes really have faith in the claims they present is a matter of small importance; but the deceptive illustrations which they are able to offer in vindication of their assertions, no less than the attractive names which they attach to their incendiary mixtures, are the sources of many distressing calamities.

There is one simple and, for practical purposes, satisfactory method of determining the character of all such mixtures, and which applies equally as well to the common oils. Let a few drops be poured into a saucer, apply a match; if the material burns reject it as unsafe. The fact that the material can be set on fire at the ordinary temperature of our dwellings should be a sufficient evidence to a person of ordinary intelligence that when employed in the household it may, at the first thoughtless or careless act, become the cause of a frightful accident.

Now for the reason why these dangerous oils find their way into the market in defiance of legal prohibition.

The crude petroleum, as it comes from the wells, is not a simple substance, but consists of a mixture of a number of oils. The operation of refining the crude product consists essentially in subjecting it to a system of frictional distillation, whereby it is separated into some six or seven products to which the commercial names of rhigolene, gasoline, naphtha, benzine, kerosene, etc., are attached.

The benzine or naphtha makes up generally about 15 to 20 per cent. of the crude oil, and for this demand in the various industrial arts is by no means equal to the supply, in consequence of which it commands but an inferior price in the market: in fact, considerably less than that demanded for the burning oils proper. Here, then, exists a direct temptation to dishonest or ignorant manufacturers and dealers to adulterate their stock of burning oil with oils of inferior price and dangerous quality. To what extent this reckless practice is carried on, the community have no just conception, but the writer feels safe in asserting that it is as general as any of the trade adulterations.

So general has it been practiced, in Philadelphia at least, that only three years ago an examination of 3,000 oil samples sold in the various parts of the city and its suburbs, showed that not more than one-twelfth of one per cent. of all the burning oils sold in the shops of this city were of sufficiently high grade to pass the fire test; and it may be added that there is no reason to suppose that any improvement of this condition of things has taken place since the time when the examination was made. The constant occurrence, therefore, of accidents with coal oil—so long as the cheap and highly dangerous products of the refinery are indiscriminately used to adulterate the comparatively safe burning oil, the kerosene, or doctored, with equal impunity into the numberless burning mixtures with alluring names that meet one at every turn—is a perfectly natural result, and one that should occasion no surprise. And so long as inspection is a farce, and the inspector and vendor are beyond the pale of legal accountability for their deeds of omission and commission, just so long will coal oil murders and disasters continue to be deplored.

A New Water Raiser.

M. Th. Foucault has invented a new apparatus for raising water by means of ammoniacal gas. The machine depends for its operation on the facts that water at 15 deg. C. absorbs 743 times its volume of ammoniacal gas, and gives it off again at 60 deg. C.; that, at 100 C., the tension of the vapor is seven and one-half atmospheres; that petroleum and ammoniacal gas are without action upon each other; and that the same is true of petroleum and water. The apparatus consists substantially of a heater which is partially filled with a strong aqueous solution of ammoniacal gas. This heater is connected by pipe with the upper part of a closed reservoir, the lower part of the reservoir being connected by means of pipe and suitable valves with the stream or well from which and the tank to which water is to be raised. The reservoir contains a small quantity of petroleum, which forms a thin stratum on the surface of the water, and serves to keep the ammoniacal gas from contact with it, and, as the inventor expresses it, forms a fluid piston. The operation is as follows: Supposing the reservoir full of water, the temperature of the heater is raised by suitable means; ammoniacal gas is given off, and passes over into the upper part of the reservoir, the stratum of petroleum preventing its being absorbed by the water there. A pressure is thus created in the reservoir, which forces the water there out and up to the tank to be filled. When all the water has been forced out of the reservoir, the heater is cooled by removing the fire and allowing a jet of water from the tank to play on it. The water in the heater, as it cools, reabsorbs the ammoniacal gas from the reservoir, and thus creates a vacuum, which the water from the stream or well rushes up to fill, and thus refills the reservoir. The heater is then again heated, and so on, as before. The inventor claims that the consumtion of fuel is almost insignificant as compared with that of a steam pump of the same capacity. The author also describes a modification of his apparatus adapted to be run by the heat of the sun, in which case the only expense is that of wear and tear, which is small, there being no moving parts.

Varnish for Cane and Basket Work.—According to the *Hessisches Gewerbeblatt*, lac, prepared after the following recipe, is used to cover split and colored cane: 25 grains of good linseed oil are heated in a sand bath, as long as a drop of it, poured on a cold stone, does not run when the stone is inclined, and when touched with the finger it feels thready. Then are added, first in small portions, one pound fat copal varnish, or some other fat varnish. The heating of the linseed oil must not be carried too far, because otherwise it would not be completely dissolved in the copal varnish, and the vessel wherein the copal varnish is heated must be large, because by the addition of the linseed oil a great deal of frothing takes place. When cold, the required consistence is given to the varnish by mixing it with turpentine oil. It soon dries, preserves a sufficient elasticity, and may be applied with or without addition of colors.—*Stummer's Ingenieu*

The Alligator Business.—Between 17,000 and 20,000 alligator skins are tanned yearly, which are consumed by boot and shoe manufacturers in every portion of the United States, as well as exported to London and Hamburg. The alligators formerly came almost entirely from Louisiana, and New Orleans was the great center of the business. The Florida swamps and morasses are now the harvest fields, and Jacksonville, in that State, the great depot. The alligators often attain a length of 18 to 20 feet, and frequently live to an old age. The hides are stripped off, and the belly and sides, the only portions fit for use, are packed in barrels, in strong brine and shipped to the Northern tanner, who keeps them under treatment from six to eight months, when they are ready to be cut up. So far the leather has been mainly used in the manufacture of boots and shoes, but handsome slippers are also made of it.

Burns and Scalds.—The recent fearful explosion on board the British ironclad, *Thunderer*, has called out the publication of many recipes and remedies. Among them all, the following contributed, by an old and experienced physician, has the merit of convenience and readiness. The remedy is simply this: The common whiting of commerce (found in nearly every kitchen) reduced by cold water to the consistence of thick cream, is to be spread on a light linen rag, and the whole burned surface instantly covered, and thus excluded from the action of the air. The ease it affords is instantaneous, and it only requires to be kept moist by subsequent occasional sprinklings of cold water. Painting the surface with ink soon relieves the pain of a small superficial burn.

Digging Ditches Economically.

A ditch is an open channel for conducting water, while a drain consists of a subterraneous passage for water. When ditches are excavated with hand tools only, the work is laborious and the cost more expensive than when teams and machinery can be employed to perform a part of the work. Many years ago when we were in the possession of a farm, much of which required draining, we performed a large portion of this irksome drudgery by the aid of the team and the common plow. Setting stakes for the line of the drain the plow was run along this line, turning a furrow, which was then thrown back out of the way by hand with shovels. The plow was then put through back again down the drain, the near horse walking in the furrow; this loosened dirt was also thrown back. We found, however, that this opened the ditch rather too narrow, and in cutting one since, proceeding in the same way, allowed the off horse to walk back in the cleared furrow, which, if the plow is set for a narrow furrow in common plowing, will cut about the right width. The plowing and clearing was continued, the near horse in the furrow, through three times more, when we found we could go no deeper because the double whiffletree dragged on the ground.

The clevis was then raised above the top of the beam and one horse put on, which by walking in the ditch drew the plow up and down once more, thus loosening the hard soil about one foot in depth. The work was done in less than half a day, and saved at least two-thirds the labor had it been dug by hand. Our ground is full of small stone, making the use of a pick requisite, and increasing the work of ditching to some extent above that of a simple clayey soil. After this experiment a long double whiffletree was employed (say six feet in length) with a horse at each end. Then the subsoil plow was drawn by a chain three or four feet long extending from the whiffletree to the plow. With a subsoil plow the earth could be broken up to the depth of three feet.—*Tuolumne Independent.*

The Missing Link.

M. Herman Fol, a Swiss naturalist, has recently contributed a memoir to the Geneva society of physics and natural history on the *Appendiculaires*, a family belonging to the class of animals known as *Tuniciers*. In this article he confirms the near relations that several authors have established between these animals and the vertebrates, and proposes them as the trunk from which the latter were developed. On this point the editor will, perhaps, be pardoned a few necessary observations. It seems evident at a glance, whatever may be our views on incidental questions, that the spinal column that distinguishes vertebrates could only have originated in aquatic habits. In fishes, for instance, it serves the function of an axis of motion extending from the head to the tail, the central canal being occupied by a tissue having the fuction of conjunctivity, and the muscles being arranged in such a manner as to act from a central osseous axis. Of the various types of motion observed in aquatic animals, the vertebrate appears to be that most conducive to rapidity of movement combined with flexibility as respects direction. Accordingly, in land animals, so long as the perfect integrity of the spinal column continues, as in reptilians, the type of motion continues to be substantially the same as in fishes; and, in the course of their fœtal development, all vertebrates pass through a spinal type that has its homologue in fishes. That this is an original type of motion, and one not fairly derivable from another or lower type, seems evident from the fact that no satisfactory link can be found to connect it with other forms. The extinct ornithic reptiles furnish a clear link between birds and reptilians. So, again, the mammalian type of motion can be readily traced to the aquatic type presented in fishes. Our conclusion, therefore, I think, in the present state of the facts, must be that the vertebrate type of motion had its origin with aquatic animals as a simple and primitive type, springing directly from the primordial necessity in such animals for a type of motion dependent on, and involving the development of, such a longitudinal axis as that which is exhibited in fishes in its simplest and most perfect form.

A New Route from Europe to China.

Should further explorations of the route from Europe to China via the Arctic ocean and the Yenesei river, across Siberia, as laid down by Professor Nordenskjold, of Sweden, prove its entire practicability, a great stride will have been made both in commercial and in geographical science. The distance from England to Volgino, at the mouth of the Yenesei river, is about 3,000 miles, and from Volgino to Peking, in a direct line, about 3,000 more. The present route from England to Peking, via the Mediterranean sea and Suez canal, is about 12,000 miles. The Yenesei river has its source in the Altai mountains, which form the boundary between China and Russian Siberia. It flows almost due north into the sea of Kara, which is distinguished from the waters of the Arctic ocean merely by the islands of Nova Zembla and the capes of the main land, which appear to partially inclose it. The distance between the headwaters of the Yenesei and the sources of the Amoor river, which flows into the gulf of Tartary and the Japan sea, is about 150 miles. The navigation of these rivers would have to be done by light draft steamers, while the short overland route of 150 miles might soon be "all rail" and resonant with fast trains. As the route lies through Russian territory that country, of course, is master of the situation. At present a large proportion of the Russian and China tea trade is carried on overland by caravans, which the new route, if developed as suggested, would render obsolete. In a political point of view, the proposed route is of much importance in its bearing upon the Russian and English possessions in the distant East, and may introduce new sources of trouble between those powerful rivals.

California Clay.

The following letter in regard to the quality of California Clay and the fictile uses to which they can be put, will prove interesting to many of our readers:

Sacramento.

J. B. Owens—

Dear Sir:—Your note of inquiry in regard to California clays, and its quality, etc., is at hand. In the manufacture of sewer pipe I use a plastic clay which, under the action of heat, forms a perfect vitrified body. In its manufacture I formerly used salt as a glaze, which is cheaper and requires less labor, but I have now adopted the slip glaze, which I believe to be preferable. It is not the degree of heat, nor the use of salt nor slip, as many suppose, that makes the quality of pipe, but the quality of pipe alone depends on the quality of your clay. If your clay will form a vitrified body under the action of heat, glazing adds nothing to the quality, except to fill up the pores and make the surface smoother. If, in the manufacture of pipe, you use strictly fire clay, and use salt as a glaze, the action of the salt has a tendency to harden the surface, but on breaking the pipe you find it has taken no action at all to vitrify the body, but acts alone on the surface, which is positive proof that the quality of your pipe depends on the quality of your clay. As to a comparison between iron stone pipe and cement pipe for sewerage purposes, it seems to be a point so well settled in favor of stone pipe by engineers of prominence, both in the Eastern and Western cities, that it is scarcely worth while to revert to the matter. You need not have any fears as to our suffering from the agitation of the qualities of pipe. I have been thirty-five years in the manufacture of clays, fourteen years of that time in California, eight years of that time in making and laying pipe, and I have yet to hear one word of complaint in regard to pipe. You can very easily settle any points in regard to pipe—to find its resistance pressure, place it under the force pump and apply your power; to test its durability, place broken pieces in sulphuric acid, and let it remain for three to four months.

Yours truly, N. Clark.

Flax Paper.

The New Zealand Gazette says that the flax of that country has lately come to the front in a new character; rope, matting and linen cloth have all been manufactured from it, and now it is presented in the shape of good, serviceable wrapping paper, cardboard and roofing for houses. The mills for carrying on these operations have been named the Kaihu, and are located in the district of Northern Wairoa, where a very considerable plant has been erected, at a cost of between one and two hundred thousand dollars.

An examination of the wrapping paper, cardboard and roofing felt, thus produced, show that, in respect to both quality and cheapness, the market affords nothing preferable. The paper is of a fine, close texture, and almost as strong as parchment—it will tear but not break; and the prepared material for roofing purposes is not only of superior adaptation, in point of quality, to the usual descriptions of felt roofing, but is furnished at a much lower price. The matting manufactured from the flax is also found to have the advantage not only of being much cheaper than the well known coir matting, but trials of the fabric prove that it will stand three times the wear and tear.



Some Reasons for Subscribing for It.

Because it is a permanent, first-class, conscientious able, and well conducted journal.

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That a more extended interchange of views and opinions may be had among farmers, upon all the great questions touching their mutual interests and progress.

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That all the honest industries of our State may be advanced in connection with that of agriculture, our columns being ever open to the discussion of the merits of all progressive improvements.

That the Rural, after having been read and pondered over by the home circle, can be filed away for future useful reference, or forwarded to the old Eastern fireside of the Atlantic border, in aid of an increasing immigration to our sunny clime.

Subscription, $4 a year in advance.

DEWEY & CO., Publishers,
San Francisco, 1875.

Annual Meeting of the San Joaquin Agricultural Society.

We learn from the Stockton *Independent* that the regular annual meeting of the San Joaquin Valley agricultural society was held in the city hall at 2 P. M. Saturday, President L. U. Shippee in the chair. From the address of President Shippee we take the following points concerning the conditions of the society and the policy of the management:

The records of the society show that financially the organization has grown from $3,659.-00—the receipts for admission, etc., not including donations or borrowed money, in 1864—to $10,982.70, from the same source in 1875.

This year the earnings have fallen short of last year, but have been sufficient to pay the ordinary expenses of running the society, the premiums and about $700 upon the permanent improvements made at the Park, consisting of a water cart, trees, decorating material, tables, two windmills and water tanks, fencing and 40 new stalls, without asking a donation of one dollar.

The improvements made during the past year, amounting to $2,134.41, were much needed, and are the same that were recommended by me at the last annual meeting. Your board of managers found it almost impossible to hold a fair successfully without them, and hoped that the income during the present year would have been sufficient to meet all indebtedness, but our Secretary's report shows that it will require $1,436.30 to meet all the liabilities of the society for the current year. It might here be said that the act of the Legislature under which we are organized does not permit the board to incur a debt exceeding $1,000. In reply to this I would say that of the $1,436.30 indebtedness, $682 is for premiums unpaid. This is not indebtedness, as the society cannot be sued for premiums, but it is a debt of honor and must be paid. It has been the custom in former years for the incoming board to provide money to pay such indebtedness by the making of an individual note.

Other improvements are required at the park, but a fair can be maintained the coming year without expending one dollar for this purpose, and by careful management, I feel safe in saying, that with the closing of another year the society will be wholly out of debt and have money in the treasury.

And now I will make a few suggestions and recommendations: During our last annual fair much was said in regard to horse racing, and many complaints were made, some, as we believe, through the most sincere motives, some to gain personal notoriety, some through ignorance and some through malice with intent to injure the society. In answer to these complaints I will quote from the report of the committee of your Legislature, appointed at the last session to investigate the doings of the State Board of Agriculture:

"During the past few years there has been almost a general complaint among the agricultural community, that too great attention is paid to horse racing at our agricultural fairs, and that it is made the leading feature, overshadowing all else by its prominence. While this is true to a great extent it will be seen that the receipts at the park are nearly three times greater than at the pavilion, which shows the public preference and throws the responsibility upon the shoulders of the people, rather than upon the managers of the institution. It is too much the custom of the people to come to our fairs empty handed, preferring the leisure and freedom of a visitor to the care and trouble of an exhibitor."

This is too true of us, and now as a remedy I would suggest that each member of the society bring any worthy animal or article they may have to our fair, no matter if your neighbor's should be better. Let us gather together our stock, products, and articles of industry, compare notes, trade, buy or sell, that we may improve our stock, our seeds and our implements, and may gain some knowledge and benefit from our annual fairs. This part cannot be done by the board of managers; it is your part of the work. Our fairs are what you make them, and the united effort of the members of the society will accomplish the desired end. We are but your servants to do your bidding. To accomplish the object designed by the society will take your time and money.

The society then proceeded to the

Election of Officers

To serve the ensuing year. The following were unanimously elected: President, L. U. Shippee; Vice-Presidents, John E. Moore and Fred Arnold; Secretary, H. W. Weaver; Treasurer, H. S. Sargent. Directors, Andrew Wolf and George Chalmers.

Honorary Vice-Presidents—Calaveras county, R. W. Russell and H. C. Schroebel. Stanislaus county—S. H. Rogers and Caleb Dorsey. Mariposa county—Jacob Snyder and Samuel Carr. Merced county—Charles H. Marks and S. C. Bates. Fresno county—J. S. Ashman and H. C. Dalton. Tuolumne county—D. McLean and P. M. Trask. Tulare county—R. C. Hyde and J. M. Johnson.

GREGORY'S SEED CATALOGUE.—Our readers will find the catalogue of J. J. H. Gregory's well known seed house advertised in our columns. For freshness and reliability of the seed sent out and enterprise in introducing choice new vegetables to the public, Mr. Gregory is endorsed by the prominent agriculturists of the United States; as recommendations from over 40 States and Territories, to be found on the cover of his catalogue, amply attest.

Swamp Land Reclamation in San Joaquin County.

The reclamation of overflowed or swamp land in this county is perhaps being carried on to a greater extent at the present time than is generally known or appreciated, except to those immediately interested or employed thereon. Besides the work on Roberts island, by J. P. Whitney, Esq., which we have heretofore described, there is a greater and more extensive work going on in the reclamation of the adjoining island to the west, called Union island, by the Tide Land reclamation company, and known as Swamp Land district No. 282.

The district comprises an area of nearly 40,-000 acres, requiring a line of levee about 45 miles in length. Work is now progressing on nearly all portions of this extended line, employing about 1,000 Chinamen, with a proportionate number of white foremen, carpenters and other employees, besides three engineers with their assistants in the field, with John Wallace, Esq., of this city, as chief engineer, and Capt. W. C. Walker as general superintendent.

The leveeing of this island will form a new era in the system of successful reclamation in this State. In most of the districts that have hitherto attempted reclamation, the work has been so imperfectly done that, after repeated breaks and overflows, doing an immense amount of damage and delaying the proper cultivation of the ground, it has been found necessary to enlarge the levee often more than once or twice before it became of sufficient size and strength to resist the attacks of the encroaching waters. But the company having the control of this district have adopted the better policy of building levees so strong and high in the first place as to preclude the possibility of future damage and loss of time.

The levees they are now constructing have an average base of 50 feet, with a slope of three to one on the side next the river, and two to one on the opposite side, with a hight of from eight to ten feet, and a width on top of five feet; these are the kind of levees built where the land is of a loamy character. Where the levee has to be constructed of the peaty turf common to the tule lands, it is made 45 feet base, 20 feet wide on top, with a hight of ten feet. The turf or sod of these levees is cut out in a regular shape and built up in the levees after the manner of brick work. These levees are placed about 200 feet from the bank of the river; the ditch from which the material is taken is between the levee and the river, and is from 120 to 160 feet wide and from three to four feet deep.

The machine invented by Col. A. W. Von Schmidt, the well known engineer, for pumping the mud out of the bottom of the river, to be used in the construction of levees in connection with the peaty sod, is in operation on a portion of the works. It would be difficult to adequately describe this machine, which displays great ingenuity in the adaptation of its different parts, and should be seen to be appreciated; but it supplies a want that has long been felt by all builders of levees, who must be satisfied that the tule sod alone is not a fit substance to be used in their construction, without the help or admixture of some more cohesive or compact material, which this machine is intended to supply, and apparently with satisfactory results.

The reclamation of Rough & Ready island, a small body of land embracing 1,600 acres, lying three miles west of Stockton, has been going on in a small way for years. The first settler on the island was James Crozier, who began building up the land for his extensive orchards over 20 years ago. He began on the principle of raising all the land above high water level, excavating earth from the interior of the island and wheeling it to the vicinity of the bank. This was of course a laborious and expensive process, although satisfactory in the end. But a few years ago the land included in the island, aside from the 160 acres owned by Mr. Crozier, was purchased by other parties, who surrounded it with a levee too low and weak to be of any permanent service, as it broke with each succeeding freshet. The present year, however, they have awakened to the necessity of building high and strong embankments and since August 1st a force of 40 Chinamen has been constantly employed enlarging and strengthening the levee. From two to three feet have been added to the hight of the embankment, and the width has been correspondingly increased. The work will be complete in a few days. The island was flooded with water last winter, which has remained standing upon it throughout the summer until in August, when it finally evaporated, leaving the land in a condition ready for the plow. A few years will see the whole of this spot, now covered with tules, converted into a perfect garden. A portion will be put into wheat this year.

We are informed that the upper district of Roberts island, comprising some 20,000 acres, has been finally enclosed with a strong levee, sufficient in all parts to keep out ordinary flood water. Gangs of Chinamen are still at work, however, in different parts, strengthening weak places that are more exposed to the river current than others. The greater portion of the land has been leased and will be broken up for a crop this winter. It is Mr. Whitney's intention next year to double the size of the present large and strong levee, making it safe beyond a peradventure.—*Stockton Independent.*

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

General News Items.

THE result of the recent presidential election still remains in doubt.

THE American mining board, recently organized in New York, has extended its business to railroad and miscellaneous securities.

A LONDON dispatch states that an extradition treaty between the United States and Great Britain has been arranged.

A RIO GRANDE dispatch says that General Diaz has entered the City of Mexico, and that Lerdo and his Ministers have fled westward.

THE hearing of the Lick estate contestants was set in the Probate court yesterday for January 3d, 1877. A venire for 48 jurors has been issued.

A DISPATCH from New York, dated the 5th inst., states that the Brooklyn theater was burnt that night. Loss about $300,000. About 300 persons were killed.

COLONEL GORDON, the African explorer, has arrived at Cairo, after an absence of three years. The Antinori, or Italian exploring expedition in Africa, has arrived at Liece. It was expected to set out for the Equatorial lakes.

HARRY ANDREWS, for nine years connected with Woodward's Gardens, retires from its management, his health not having been good for some months past. After a few months' rest he will enter a mercantile career.

A BETHLEHEM, Pa., dispatch says that more than one-half of the mines in that State are closed. The number of men thrown out of employment is estimated at between 35,000 and 45,000. It is believed that the suspension will be entire by the middle of the month.

THE Associated California Pioneers in New York have inaugurated a series of monthly receptions for the reviving of old ties, swapping of pioneer experience, and eliciting and recording personal and historical facts connected with pioneer days.

SMALL POX is raging at White Mud river, Minnesota, and many Indians and Icelanders have died of the disease. The government storehouse has been converted into a hospital, the sick removed there and their vacant dwellings burned.

A REBELLION has broken out in Buenos Ayres, headed by Colonel Alsina, Minister of war. Gold is at a premium of 30 per cent. The first reports of the Buenos Ayres insurrection were grossly exaggerated. Order has not been disturbed, but the government has declared a state of siege in four provinces to prevent the fomentation of disorder by bands of desperados.

IN this State during the week there have been indications of rain, but no water. In some counties this lingering of the elements is greatly regretted. Rain is now needed to help along the volunteer and early sown grain, and to start the plows on the new fields. In the city trade is also awaiting the rains and the resumption of activity in the country.

ON Monday Congress met in Washington, and on Tuesday President Grant transmitted his eighth and last annual message. Contrary to general expectations this document contains no allusion to the election difficulty which is now vexing the country. The message gives a review of the country during Grant's administration and notes other matters which, at this time of excitement, will not largely occupy the public mind. The House of Representatives has elected Samuel J. Randall, Democrat, of Pennsylvania, to the speakership. Up to this time both houses of Congress have done little but effect their organization and receive the message of the President.

CENTENNIAL AWARDS.—The list of awards decided upon by the Centennial Committee of Appeals was made public on the 4th inst., and comprises the following to Pacific coast exhibitors: California—Fred. Ogden, automatic ore feeder; I. Landsberger & Co., champagne; Frederick Oppenheim, San Francisco, single and double buggy. Nevada—Allen A. Curtis, for Independence mine, Austin, Manhattan company, silver ore; S. M. Belcher & Co., miner's tools; Thomas G. Taylor, Gold Hill, double-deck hoisting machines. Oregon—Pioneer oil company, Salem, linseed oil; R. C. Kenney & Sons, Salem, flour; Daniel Holton, Portland, veneerings of Oregon maple; Parrish & Miller, Jefferson, flax in the straw and lint; T. L. Davidson, merino wool; Charles Dubois, Portland, furs.

THE Tide Land Reclamation company elected the following trustees at its annual meeting in S. F. on Tuesday: Thomas H. Williams, G. D. Roberts, John W. Roberts, J. S. K. Latham, George W. Gordon, John D. Spear and Jo. Gordon. A resolution was adopted to reduce the number of trustees to three, and General Williams, G. D. Roberts and J. S. K. Latham were appointed a committee to prepare the necessary papers. The gentlemen composing the committee will probably constitute the diminished board of trustees.

WEST SIDE CANAL.—The Antioch *Ledger* says: The work of surveying and locating the West Side irrigation canal is still progressing, though a letter received by Commissioner Williams, of this place, from J. R. McDonald, President of the Board, states that the funds are nearly exhausted, and urges in strong terms the immediate necessity of means to complete the work.

Notices of Recent Patents.

Among the patents recently obtained through Dewey & Co.'s SCIENTIFIC PRESS American and Foreign Patent Agency, the following are worthy of mention:

FRUIT KNIFE.—George Tarleton, San Jose. This consists of a novel attachment to knife blades, the object of which is to cut out and remove the parts of such stoned fruit as peaches, prunes, etc., at the same time that the knife blade cuts the fruit in halves. The pitting attachment for the knife blade consists of a semi-circular steel or other metal blade, the convex side of which is secured at its middle to the cutting edge of the knife blade about two and a half inches from the handle, so that it forms two narrow curved blades, one of which extends upon each side and projects in front of the cutting blade. To pit the fruit the knife is taken in one hand and the fruit to be cut in the other. The operator then cuts through the fruit with the ordinary blade in the crease which surrounds all stoned fruits, commencing near the depression at either end, and after the blade has been inserted until it strikes the stone it is drawn towards the operator until the curved blade enters and partially surrounds the stone or pit. The fruit is then rotated, allowing the blade to follow the crease until the fruit has been cut to the pit entirely round its circumference. During this operation the transversely curved blade follows inside of the fruit, cutting around the pit, as the large blade cuts the meat, so that when the fruit is cut in halves the pit is entirely free. The inventor says this cutting blade could be attached to a circular knife and the circular knife rotated around the fruit and thus a machine can be made that will automatically halve and pit fruit; but for ordinary work the knife itself, operated by hand, is sufficient.

SPARK EXTINGUISHER.—J. W. Donaldson and Allen C. Miller, Fairfield, Solano Co. The improvement relates to a novel means of extinguishing the sparks and cinders which escape from the furnaces of engines, and by its use the danger which arises from fire in harvest fields and other places is avoided. The invention consists in the application of a jet or spray of vapor within the smoke-stack or chimney through which the sparks escape, and by this means they are all extinguished before leaving the chimney.

STUMP PULLER.—J. B. Forbes, Olympia, W. T. This machine for pulling stumps consists of a sled frame which is provided with adjustable wheels, which can be raised or lowered when desired, so that the machine will rest upon the wheels. A capstan or windlass is mounted upon the frame and convenient methods of sinking the devices are supplied. This machine is quite simple and can be used for various purposes besides stump pulling. By ingenious means plenty of power is supplied for the work it is required to do.

MECHANICAL POWER.—Henry G. Gastmann, Eureka, Humboldt county, Cal. This invention relates to a novel improvement in mechanical process which the inventor calls the "diamond lever power," and it consists in the combination of levers, which form a series of parallel lever movements having a gradually increasing stroke. This mechanism is connected with one main lever, and is operated by a pitman from a crank upon a driving wheel.

The People's and Grangers' Immigrant Bureau, 40 California St.

This institution, according to reports published in the daily papers, has provided situations free of charge for more than 6,000 applicants, and furnished 7,000 persons in search of lands for settlement with letters of introduction to prominent citizens in the interior. The services of the bureau are entirely free to all, as it is supported by subscription. It is just what we need in California, and should be supported. Orders for help will be filled free of charge to either employer or employee. Send them in. Hundreds of immigrants are waiting for them.

FOR the rich with few children it may do to buy a shoe without Tips, but to those who are blessed with many children and little money it is ruinous to buy any other than SILVER TIPPED Shoes. Also try Wire Quilted Soles.

THE

Most Beautiful Tree in the World,

PAULOWNIA IMPERIALIS OF JAPAN.

The Committee of the Cincinnati Horticultural Society makes this report: "This magnificent rapid growing shade tree is given up by all who have seen it to excel in beauty the lovely 'Southern Magnolia.' 75 to 100 splendid blue flowers grow in a single cluster, each flower being as large as the largest morning-glory, with a texture as fine as a ninip and fragrant as a white lily. A single cluster of flowers would fill a half bushel measure. Will bloom in four years from the seed. A single leaf measures eight feet in circumference."

I. BLACKBURN, } Com.
GEO. WELTZ, }

Fine trees sent by mail, and warranted to grow and bloom in three years. Price: one tree, $1.00; two trees, $1.75; six trees, with one extra, $5.00. Package of 100 seeds for 50 cts. Send stamp for pamphlet, giving a history of tree, and how to raise from seed.

C. C. COOLEY,
Box 183.] Manchester, Adams County, O.

N. B.—Some nurserymen are selling the "Umbrella tree of China" and calling them the Paulownia; beware of them.

25 FANCY CARDS, all styles, with name, 10 cts. Post paid. J. B. HUSTED, Nassau, Rens. Co., N. Y.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Wednesday, Dec. 6, 1876.

The trade of the week has been characterized by a further improvement in the grain market. Barley and Corn have shared in the advancement of the leading cereal. Prices have been well maintained, and to-day the Liverpool quotation takes another step forward.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	CAL. AVERAGE.	CLUB.
Thursday.....	Holiday.	Holiday.
Friday.....	10s 9d@11s —	10s 10d@11s 2d
Saturday.....	10s 9d@11s —	10s 10d@11s 2d
Monday.....	10s 9d@10s 11d	10s 10d@11s 2d
Tuesday.....	10s 10d@11s 1d	11s 1d@11s 3d
Wednesday....	10s 10d@11s 1d	11s 1d@11s 3d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	9s 10d@10s 4d	10s 4d@10s 7d
1875.....	10s 10d@11s 1d	11s 2d@11s 7d
1876.....	10s 10d@11s 1d	11s 1d@11s 3d

The Foreign Review.

The *Mark Lane Express*, of December 4th, says: The present autumn has been as favorable for agricultural operations as its predecessor was reverse. In Scotland the weather has been dryer, and autumn tillage has progressed more satisfactorily. The reported acreage under wheet is much larger than last year. The appearance of the early sown cereal crops is promising. At the country markets the supplies of wheat continue very small, many samples being damp and in bad condition. The provincial trade is generally strong, at a rise of a shilling. In Mark Lane, home-grown wheat has been marketed very sparingly, but higher prices have been obtained in only a few instances. Foreign rnied quiet but steady until the close of the week, when the animation increased, and fine white and American descriptions rose fully a shilling. The imports into London last week, although liberal, were, excepting 1,800 quarters from New York, composed entirely of Russian and East Indian. Recent Calcutta advices state that the supply is being diverted thence to Bombay, to meet the famine. A smart advance in Indian is worthy of attention. It now approximates closely to the value of the finer sorts. The characteristic feature of the season continues prominent, namely, that even advancing prices fail to attract large shipments from the American Atlantic shores. If this continues, it will be difficult to see whence our red wheat is to come. Granary stocks are undoubtedly large. Still, the political difficulties on the Continent may at any moment so strengthen holders that this class of wheat will materially advance. There have been large arrivals of oats from Russia, under the pressure of which prices slightly declined. The Continental demand for cargoes of maize off the coast cause an improvement of sixpence on the spot. Barley has been dull, and the grinding qualities have declined sixpence to a shilling. Arrivals of floating cargoes of wheat at ports of call have been limited. The e has been an advance of a shilling to two shillings per quarter.

Freights and Charters.

The *Post* says: Notwithstanding there has been a marked thinning out of engaged tonnage on the berth, and the list of disengaged vessels is quite small, Wheat charters have had anything but a firm appearance during the week. At the close it is difficult to give accurate quotations, but the range probably lies between £2 and £2 2s 6d, according to vessel. The rapid advance in the local wheat market has undoubtedly caused the decline in freights. There are at least 30,000 tons of tonnage now due at this port. Some of the vessels had been chartered as high as £3 5s, but their charters will have to be cancelled, owing to their not putting in an appearance on time. We have, at this writing, 38,581 tons of tonnage in port engaged for Wheat, and 4,270 tons for miscellaneous purposes. The list of disengaged tonnage now foots up 34,877 tons. The engagements of the week were as follows: Ship Charmer, 1,331 tons, Wheat to Liverpool at £2 2s 6d; Br ship Medea, 1,066, and Galatea, 1,520, Wheat to Cork for orders; the former at £2 5s and the latter on owners' account; also, Br ships City of Delhi and Bremen, Wheat to Liverpool, the former at £2 2s 6d, and latter on owners' account; Br ship Kate Kallock, 1,173; Duchess of Argyle, 1,766; Bayard, 1,310—Wheat to Cork for orders, private.

The November Shipments.

Last week closed another month of the harvest year, and the shipments of Wheat from this port were 1,534,255 centals, or 525,269 centals less than shipped in October. The total shipments from here since July 1st, 1876, have been 6,819,736 centals, being a very large gain over the figures for the corresponding time in 1875. The *Alta*, adding three cargoes shipped from the southern ports, says the entire exports from the State since July 1st, 1876, were 6,280,933 centals, or 344,046 short tons. The highest point in the Wheat export trade was reached in October, this month turning the scale. Five months, the busiest portion of the cereal year, have passed, and we may look for a considerable falling off hereafter in the monthly average. It is rather doubtful whether we shall even attain the reduced estimate of exports this year—600,000 tons.

New York Grain Market.

NEW YORK, December 2d.—The home trade in grain of the week has been uncommonly dull. Export trade has been quite active, especially as regards food staples, which have, as a rule, shown a rising tendency. Wheat is from one to two cents dearer, the predominant influence being short crops at home and abroad; and No. 2 spring is worth $1.30@1 34; No. 1, $1.34@1.38; stock a tight one to enter the winter with; and an additional element of strength in the market is the probability of high rates of rail freights. Winter Wheat has sold at $1.25@1.45. Corn has been active for export shipments, including several cargoes for Italy, where it is to be used partly for distilling purposes. There have also been some purchases for France and Portugal, together with liberal business in Rye for the North Sea ports, all at full export trade.

Chicago Grain Market.

CHICAGO, Dec. 3d.—The past week's Grain trade has been characterized by the general dullness that has pervaded all branches of business during the election excitement. Commission merchants complain that country orders have been almost stopped, and the uncertainty of Eastern matters prevents a large movement either way. Prices close up firm though not at quite outside prices. Wheat closed at $1.14¾; Corn, 44½; Oats, 33½. Receipts for the week: Wheat, 364,000; Corn, 437,000; Oats, 177,000; against last year's: Wheat, 444,000; Corn, 187,000; Oats, 156,000. Shipments for the week: Wheat, 206,000; Corn, 285,000; Oats; 156,000; against last year's: Wheat, 268,000; Corn, 253,000; Oats, 127,000. Prospects for at least present prices are good, and operators who take the short interest generally do so for a brief term and small profit, while the Bulls seem to control matters and to have the greatest confidence in the future. The large Corn crop, together with the almost unprecedented supply of Hogs, has caused Pork and Lard to recede largely from last spring's prices, and there is not much strength in the Provision market. Hogs are coming forward largely in excess of expectations.

Eastern Wool Markets.

NEW YORK, Dec. 2d.—The business of the week has been interrupted, and the volume of trade contracted, by the intervention of a holiday. But few manufacturers have presented themselves, and speculators have avoided the market, but holders preserve the firmness that has been the characterizing feature for some months past. Advices from London state that prices at auction have been further advanced half a penny to a penny. Sales for the week comprise, 115,000 lbs. Fall Cal., 14@20c; 15,000 lbs Free Spring do, 27c; 10,000 lbs Burry do, 22c; 13,900 lbs Fall Texas, 23@25c; 10,000 lbs Spring do, 28c; 20,000 lbs Washed Western Fleece, 40c; 2,500 lbs do, State Combing, 48c; 20,000 lbs Unwashed Ohio and Western, 27@32c; 3,000 lbs Locks, 32c; 30 bales New Zealand, 775 do Danskoi, 2,000 lbs Cal. Fall Scoured, 20,000 lbs Utah, 30,000 lbs X Pulled, 32,500 lbs Cosree Texas and 20,000 lbs X and XX Ohio, on private terms.

Canadian Barley.

The Philadelphia *Commercial List* contains the following concerning the Canadian Barley crop: Some of our dealers who have visited the Provinces during the month, confirm previous reports concerning the poor quality of the Canadian crop. The berry is small and shriveled, and has little to recommend it, except its pure, white color. It is reported that the Canadian crop is much below first estimates, and some dealers think the crop will not equal 5,000,000 bushels, and much of it is said to be poor and fit only for feed. A recent letter from well-informed parties states that about three-quarters of the Canadian crop has moved out of farmers' hands. A considerable quantity has gone East.

This lack in the Canadian crop douhtless makes room for our unusually large shipments to the Eastern States.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

ARTICLES.	WEEK Nov. 15	WEEK Nov. 22.	WEEK Nov. 28.	WEEK Dec. 6.
Flour, quarter sacks	58,923	33,755	23,659	33,426
Wheat, centals.....	354,142	246,548	369,423	254,366
Barley, centals.....	19,932	26,287	36,000	42,451
Beans, sacks.....	6,932	8,088	3,655	9,160
Corn, centals.....	5,053	5,858	4,199	5,978
Oats, centals.....	9,918	6,888	18,814	2,355
Potatoes, sacks.....	26,563	30,143	23,106	20,673
Onions, sacks.....	1,451	983	1,790	1,298
Wool, bales.....	2,946	2,208	1,347	438
Hops, bales.....	747	357	1,274	78
Hay, bales.....	1,240	1,275	1,019	976

Bags—Our quotations, giving jobbing prices, are unchanged. There have been large wholesale transactions during the week at lower prices. Some cash sales are reported recently at 8⅝@8¾c for standard Grain Bags and one of 50,000 at 9¼c, four months' credit. The only inquiry is for next season.

Barley—The upward tendency continues. Sales during the week are noted as follows: 5,000 sks Brewing, $1.17½; 5,000 do do, $1.20, both gold; 800 ctls Bay Feed, $1.16¼; 500 do Coast Feed, $1.10@1.12½; 800 do do, $1.13, all silver; 300 do do, $1.10; 200 do do, $1.15, and 700 do Bay Brewing, $1.20 per ctl, all half silver; 700 do do, $1.20, hf and hf; 800 do Coast Feed, $1.13; 300 do do, $1.15, hf and hf; 400 do do, $1 16¼, and 700 do, $1.10@1.12½; 1,050 sks Coast Feed, $1.20; 560 do, $1.25 per ctl, all silver; 1,500 ctls Bay Feed, $1 25; 300 sks do, $1.25, gold; 2,200 do Coast Brewing, $1.20, half silver; 1.800 sks Coast Feed, $1.05, gold, 1,000 do do, $1.07½; 1,500 do do, $1.07½@1.10; 1,500 do do, $1.10; 2,250 do do, $1.12½; 400 do do, $1.15, and 1,000 do, $1.17½ per ctl, all silver.

Beans—Beans are arriving more freely. There have been but a few small changes in quotations, which may be found below.

Buckwheat—Buckwheat is plenty at $1.50 per ctl, ss last week.

Corn—Corn shows a little higher range than last week. We note sales ss follows: 500 sks Large Yellow, $1.12½, gold; 475 do, Lsrge Yellow and White, $1.15; 1,000 do Large Yellow, $1.15; 300 sks Large Yellow at $1.12½; 108 do do at $1.15; 130 do do, $1.17½, and 200 do Small Round at $1.17½ per ctl, silver; 400 sks Large Yellow at $1.10, silver, and 250 do do at $1.12½; 1,000 sks Lsrge Yellow, $1.10; 250 do do, $1.12½, both silver.

Dairy Produce—Fresh roll Butter has been received in much larger quantities, and the price is lower. From 32½@37½ is the range for good, and fancy brands rule up to 42½, with 45c as an extreme per single box. Cheese is unchanged.

Eggs—Fresh Eggs are weak at 45c.

Feed—Bran is advanced to $18 per ton and Middlings to $27 per ton. Hay ranges from $10 to $16; the latter for choice Wheat. The receipts of Hay for the week have been rather below the average. No cargo sales are reported.

Fruit—Our table of quotations below shows an advance of $5 per M on Mexican Oranges; a decline of $2 per box on Sicily Lemons; a general decline on Apples. Strawberries, which still give our market the air of spring time, are now quotable at $20 per case. Grapes are generally higher.

Hops—There is nothing doing in Hops. Some parties are quoting lower prices, but we cannot find anything offered at less than 25c per pound; holders preferring to wait. Emmet Wells quotes the New York market for the week ending Nov. 25th, as follows:

The dull and unsettled condition of the market noted in our last has culminated into increased depression, and prices are off to 2 to 5c per pound on all descriptions of the new growth, excepting Californians and Oregon, which alone maintain late values, owing to their superior quality and scarcity. The most marked decline has been in the lower grades of Western Hops; sales of this class have been forced, even at lower figures than quoted below; and so anxious have holders been to unload, that it has effected the value of choice goods, in some cases, as much as 5c off from the price of last week. Several causes are attributable to this unfavorable turn of the market; the most prominent of which is, a failing off in the demand for export, and the heavy increase in the receipts. Quotations: New Yorks, good to choice, 30@33c; New Yorks, low to fair, 20@25c; Eastern, 27@30c; Wisconsins, 20@25c; Yearlings, 10@15c; Olds, all growths, 4@8c; Californians, 33@36c; Oregon, 30@33c.

Oats—Receipts of Oats during the week have been exceedingly light, and prices are well maintained. Feed Oats have sold closer to the top prices than usual. We note the following sales: 570 sks Coast Feed, $5.67½; 600 do good Feed, $1.75; 560 do do, $1.80 per ctl, all half silver; 1,200 do do, $1.70; 675 do do, $1.75 per ctl, both gold; 600 sks black Oats at $1.70@1.72½, half silver; 300 sks Feed, $1.70, half silver; 700 do do, $1.70, gold; 300 do Milling, $1.80, gold; 500 sks good Coast Feed, $1.75, gold; and 200 do do at $1.60, hf and hf; 300 sks Feed at $1.70, hf and hf: 700 do, $1.70, gold; 300 sks Coast Feed, $1.80, gold.

Onions—During the past seven days Onions have taken a singular course. At the close of last week receipts fell away greatly, owing to advices sent to the shippers that the market was overstocked. The price accordingly advanced in some cases to $1.15 per ctl. The rise set the shippers in motion again, and the price fell to 80c, where it stands to-day, just as it did one week ago. Quotations may be found in our tables below.

Potatoes—The Potato market is flat. The amounts now held in store in this city are greater than ever before, and large quantities arriving in poor condition are dumped from the wharf. The amount now on hand in this city is estimated from 70,000 to 100,000 sks. Sales during the week have been within the range of prices which we give in the tables.

Poultry and Game—A general advance is noted in Poultry, owing to the Thanksgiving demand and the approach of the holiday season. Game prices are unchanged.

Provisions—Fresh Beef is quotable a little higher, because of the concerted action of wholesale butchers to restrict slaughtering. Mutton is unchanged. Cured Meats and Lard are lower, with strong demand. California Hogs are abundant and of superior quality. The supply is in excess of packing requirements, and prices of the product are reduced in consequence.

Rye—The price is $1.62½@1.70 per ctl.

Vegetables—The market is about cleared of many of the summer favorites. Green Corn, Summer Squash, green Lima Beans, shell Beans, Peppers and Egg Plant have stepped out for the season. Carrots and Garlic are plenty and lower. String Beans and Tomatoes are nearly doubled in price. Full quotations may be found below.

Wheat—Sales during the week have been at the advance scored a week ago, and the feeling to-day is very strong. We note sales for the week as follows: 2,800 sks Milling, $2.10 per ctl; 1,300 do do at $2.05; 250 do Shipping, $2, and 500 do Superfine, $1.91@1.91½; 2,000 sks choice Milling, $2.10 per ctl; 500 do Superfine, $1.91@1.91½; 1,700 ctls Shipping, $2.05; 2,820 centals Shipping, $2.05; 2,000 tons above, $2.12½; 1,000 sks old, $2.12½; 1,050 sks choice Shipping, $2; 305 sks Milling, $2.05; 400 ctls do, $2.05; 40,000 sks choice Shipping in the interior at the equivalent of $2.10 here; 820 do good Shipping, $2.05; 1,000 do choice Milling, $2.12½; a sale of 40,000 centals Shipping is mentioned at an advance on $2.10 per ctl.

Wool—The Wool market is lifeless at this point. Quotations are retained in the absence of sales. The amounts now in store are firmly held and receipts are a minimum. We hear of no sales this week.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY, M., Dec. 6, 1876.

BEANS.

Bayo, ₱ ctl.....	2 50	@	2 75
Butter.....	1 50	@	1 87½
Pea.....	2 00	@	—
Red.....	3 00	@	3 25
Pink.....	2 75	@	3 00
Sm'l white.....	2 00	@	—
Lima.....	2 00	@	2 25

BROOM CORN.

Common, ₱ lb..	2	@	2½
Choice, do ..	3	@	4

COTTON.

Cotton, ₱ lb.....	15	@	18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	30	@	42½
Point Reyes.....	42½	@	45
Pickls Roll.....	30	@	32½
Firkin.....	25	@	30
W'st'n Rsserve.	16	@	25
Nsw York.....	—	@	—

CHEESE.

Cheese, Cal., lb..	10	@	15
do Old.....	—	@	—
Eastsrn	12½	@	15

EGGS.

Cal. fresh ₱ doz	45	@	—
Ducks'.....	43	@	44
Oregon.....	40	@	42½
Eastern.....	21	@	30

FEED.

Bran, psr ton....	18 00	@	— —
Corn Meal.....	27 50	@	— —
Hay.....	10 00	@	16 00
Middlings	27 00	@	— —
Oil cake meal...	— —	@	33 50
Straw, ₱ bale..	60	@	62½

FLOUR.

Extra ₱ hbl....	6 50	@	7 00
Superfine.....	4 75	@	5 25
Graham, ₱ bbl..	4 75	@	5 00

FRESH MEAT.

Beef 1st quality ₱ lb.	4½	@	6½
Ssoond do	3½	@	4½
Third do.....	3	@	3½
Mutton.....	4½	@	5
Pork, undressed	6	@	6¼
do, dressed....	8¼	@	8½
Veal.....	5½	@	6
Milk Calves.....	7	@	8½

GRAIN, ETC.

Barley, feed ctl.	1 10	@	1 20
do brewing.	1 20	@	1 30
Chevalier.....	1 25	@	1 40
Corn, White...	1 05	@	1 10
do Yellow....	1 10	@	1 15
Oats,.....	1 80	@	1 85
Milling.....	1 90	@	1 95
Rye.....	1 60	@	1 70
Wheat shipping	1 95	@	2 12½
do milling..	2 10	@	2 15

HIDES.

Hides, dry.....	18	@	18½
do wet salted	7	@	7½

HONEY, ETC.

Beeswax, per lb..	25	@	27½
Honey in comb..	10	@	12½
do Strained.....	6	@	8

HOPS.

New crop.....	25	@	28

NUTS—Jobbing.

Alm'da hi'rd sh'l ₱ lb	8	@	10
do, soft sh'l...	14	@	17
Brazil do.....	14	@	16
Cal. Walnuts...	9	@	10
Chile Walnuts..	11	@	12½
Pecannts.....	17	@	18
Peanuts per lb..	8	@	9
Filberts.....	15	@	16

ONIONS.

Union City ctl.	80	@	90
Stockton	65	@	80

POTATOES.

Petaluma, ₱ ctl.	50	@	75
Salt Lake.....	—	@	—
Humboldt.....	65	@	90
Half Moon bay..	60	@	85
Cuffey Cove..	90	@	1 00
Early Rose new	50	@	70
Sweet.....	50	@	—

POULTRY & GAME.

Hens, per dz..	7 50	@	9 00
Roosters.....	5 00	@	7 00
Broilers.....	4 00	@	5 50
Ducks, tame, dz	8 00	@	9 50
Geese, per pair.	1 75	@	2 00
Wild Gray dz.	2 00	@	2 50
White.....	—	@	1 50
Turkeys, Live, lb	20	@	22
do Dressed	22	@	23
Quail, per doz...	1 25	@	1 50
Snipe, Eng., doz.	—	@	1 50
Doves, per dozen	50	@	57
Rabbits.....	1 00	@	1 25
Hare, per doz...	2 00	@	2 50
Venison lb.....	—	@	10

PROVISIONS.

Cal. Bacon, L't, lb	14½	@	15
do Medium ...	14	@	14½
do Hsavy.....	—	@	15
Lard.....	12½	@	14
Cal. Smoked Beef	10	@	10½
Eastern do....	—	@	—
East'rn Shonld's	—	@	—
Hams, Cal.....	14	@	14½
do Armour	16½	@	—
do Worster's.	—	@	—
do Dupee's...	18	@	—
do Davis Bros'	—	@	18

SEEDS.

Alfalfa, Chile lb.	9	@	14
do California.	15	@	17
Canary.....	10	@	12½
Clover Red.....	—	@	22
do White	50	@	55
Cotton.....	6	@	10
Flaxseed.....	—	@	3½
Hemp.....	6	@	8
Italian Rye Grass	25	@	30
Perennial do....	20	@	30
Millet.....	10	@	12
Mustard, white.	8	@	—
do. Brown.....	3½	@	4
Rape.....	4	@	5
Ky. Blue Grass..	30	@	—
do 2d quality..	29	@	—
Sweet V Grass..	—	@	75
Orchard do....	30	@	35
Red Top do....	—	@	25
Hungerian do	8	@	12
Lawn do.....	50	@	—
Mesquit do....	20	@	25
Timothy.....	10	@	10½

TALLOW.

Crude, ₱ lb.....	6¾	@	6¾
Refined	8	@	8½

WOOL, ETC.

FALL—			
Free.....	12	@	14
Choice.....	14	@	16
Northern.....	17	@	21
Burry.....	10	@	16
Oregon Eastern..	20	@	—
do Valley.....	25	@	—

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY, M., Dec. 6, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M.....	30 00	@	35 00
Tahiti, do	30 00	@	35 00
Cal. do.....	— —	@	— —
Lemons, ₱ M ...	3 00	@	10 00
Cal. ₱ 100.....	2 00	@	2 50
do Sicily ₱ b'x	10 00	@	— —
Bananas, ₱ bnch	1 50	@	4 00
Cocoannts, ₱ 100.	5 00	@	6 00
Pineapples, ₱ dz.	—	@	—
Apples, ₱ box...	40	@	1 00
Blackberries cse	—	@	—
Cherries ₱ lb....	—	@	—
Figs.....	4	@	5
Gooseberries....	—	@	—
Huckleberries...	—	@	—
Strawber's ₱ cs.	—	@	20 00
Pomgranates....	—	@	—
Raspberries.....	—	@	—
Currants, ₱ cs.	—	@	—
Cranberries bbl.	14 00	@	15 00
Peacnes, ₱ lb...	5	@	9
Pears, ₱ bx.....	75	@	2 50
Crab apples, ₱ lb	2	@	3
Grapes ₱ box.....	50	@	75
Rose of Peru....	75	@	1 00
Muscat.....	75	@	1 00
Black Hamburg.	75	@	1 00
Tokay.....	10	@	75
Quinces, box	75	@	1 00

DRIED FRUIT.

Apples, ₱ lb	4½	@	6
Pears, ₱ lb	7	@	9
Psaches, ₱ lb.....	7	@	9
Apricots, ₱ lb.....	10	@	12½
Plums, ₱ lb.....	3	@	4
Pitted do ₱ lb...	—	@	13
Raisins, imported.	3 25	@	3 75
Cal. Raisins box	1 50	@	2 75
Black Figs, ₱ lb....	4	@	6
White, do	10	@	—
Prunes.....	12½	@	17
Citron.....	28	@	30
Zante Currants.	9	@	10

VEGETABLES.

Asparagus ₱ lb.....	—	@	—
Beets ₱ ctl.....	—	@	60
Cabbage, ₱ 100 lbs.	50	@	60
Carrots, ₱ 100 lbs .	37½	@	40
Cauliflower, doz....	50	@	—
Celery, doz.....	50	@	—
Garlic, ₱ lb.....	2	@	2½
Green Peas ₱ lb	—	@	6
Green Corn ₱ doz...	—	@	—
Sqm'r Squash ₱ box.	—	@	—
Marro'fat Squash	8	@	9 03
Artichokes, ₱ doz..	—	@	—
String Beans, ₱ lb	8	@	9
Lima Beans	—	@	—
Parsnips, per lb....	1	@	1½
Shell Beans.....	—	@	—
Peppers, green, bx.	—	@	—
Cucumbers, ₱ box..	—	@	1 00
Tomatoes, box.....	60	@	1 25
Egg Plant, box.....	—	@	—
Rhubarb box.....	—	@	—
Lettuce, doz.....	10	@	—
Turnips, pr ctl....	50	@	62½
Mushrooms..	12½	@	15

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY, M., Dec. 6, 1876.

BAGS.

Eng. Stand Wht..	9½	@	10
Nevills & Co's..			
Hand Sewed. 22x36	9½	@	10
24x36.....	10½	@	11½
23x40.....	11	@	12
Macbine do 22x36.	9½	@	10½
Flour Sacks ½s...	9	@	11
" " ¼s.....	6	@	7
" " ⅛s.....	4½	@	5
Hessian 60-in.....	11½	@	12
do 45-in.....	9½	@	10
do 40-in ..	8½	@	9
Wool Sacks, 3½ lbs.	45	@	50
do 4 "	50	@	52½
Stand. Gunnies...	11½	@	12
Bean Bags.....	7	@	8

CANNED GOODS.

Asst'd Pie Fruits in 2½ lb cans.	2 75	@	3 00
do Table do...	3 75	@	4 25
Jams & Jellies	4 25	@	—
Pickles ½ gl..	—	@	3 50
Sardines, qr box	1 65	@	1 90
do hf boxes.	3 00	@	— —

COAL—Jobbing.

Australian, ₱ ton	8 00	@	8 25
Coos Bay.....	— —	@	9 00
Bellingham Bay..	— —	@	9 00
Seattle.....	— —	@	9 00
Cumberl'd.....	14 00	@	16 00
Mt. Diablo.....	6 75	@	7 75
Lehigh.....	— —	@	22 00
Liverpool.....	8 50	@	10 00
West Hartley...	— —	@	14 00
Scotch.....	9 00	@	10 00
Scranton	13 00	@	16 00
Vanconver's Isl.	10 50	@	12 00
Charcoal, ₱ sk...	75	@	—
Coke, ₱ bbl.....	—	@	60

COFFEE.

Sandwich Island —		@	21½
Costa Rica per lb	21	@	—
Guatemala.....	20½	@	21½
Java.....	—	@	23
Manilla.....	20	@	21
Ground in os....	25	@	—
Chicory.....	27	@	—

FISH.

Sac. Dry Cod, new	5	@	5½
cases.....	6	@	7
do boneless....	8½	@	10
Eastern Cod.....	6	@	8½
Salmon in hbls..6	50	@	7 25
do ½ bbls	3 75	@	4 00
do 2lb cans..2	65	@	—
do 1lb cans..1	80	@	—
do Col. R. ½s.	4 25	@	4 50
Pick. Cod, bbls.	22 00	@	—
do ½ bbls	11 00	@	—
Mack'l, No. 1, ½bls	11 00	@	—
" Extra....	—	@	12 00
" in kits....	1 12½	@	2 25
" Ex mess.	3 50	@	4 00
" Ex mess. ½bs	—	@	12 00
Pic'd Herr'g, hx..	3 00	@	3 50
Bos. Sm'k'd Her'g	40	@	50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl.....	2 00	@	2 25
Cement, Rosendale, do.....	2 75	@	3 50
do Portland do	4 75	@	5 50
Plaster, Golden Gate Mills....	3 00	@	3 25
Land Plaster, ₱ ton.....	10 00	@	12 50

MISCELLANEOUS.

Pnlu.....	—	@	7½

NAILS.

Assorted size, keg	3 25	@	4 00

OILS.

Pacific Glne Co			
Neat F't No. 1.	1 00	@	90
Pnre.....	—	@	—
Castor Oil, No. 1..	1 25	@	—
Baker's A A....	1 25	@	1 30
Olive Plagniol..	5 25	@	5 50
do Possal.....	4 45	@	4 50
Palm lb.....	9	@	—
Linseed, raw....	—	@	75
do boiled.....	—	@	80
Cocoanut.....	—	@	80
China nut in cs..	—	@	70
Sperm.....	1 60	@	1 65
Coast Whales ..	5	@	55
Polar, refined..	62½	@	65
Lard.....	1 10	@	1 15
Oleophine	—	@	38
Devoe's Eril't...	38	@	39
Nonpariel.....	42½	@	—
Eureka.....	32½	@	38
Barrel kerosene	32½	@	—
Downer Kerose'e	45	@	—
Elains.....	—	@	42

PAINTS.

Purs White Lead	9¾	@	10¼
Whiting.....	—	@	1¾
Putty	4	@	5
Chalk.....	—	@	1½
Paris White.....	—	@	2½
Ochre.....	—	@	3½
Venetian Red...	—	@	3½
Averill Chemical Paint, per gal.			
White & tints.	2 00	@	2 40
Green, Blue & Cb Yellow..	3 00	@	3 50
Light Red....	3 00	@	3 50
Metallic Roof.	1 30	@	1 60

RICE.

China No. 1.. ...	¾	@	6
Hawaiian, ₱ lb..	7	@	—
Carolina, ₱ lb..	10	@	—

SALT.

Cal. Bay, per ton	10 00	@	14 00
do Common..	5 00	@	7 00
Carmen Island..	12 00	@	15 00
Liverpool fine..	13 50	@	16 50

SOAP.

Castile ₱ lb....	10	@	10½
Common brands..	4½	@	6
Fancy do ..	7	@	8

CANDLES.

Grant's.....	16	@	16½
Mitchell's..	18	@	20

SPICES.

Cloves ₱ lb.....	45	@	47½
Cassia.....	23½	@	26¼
Citron.....	28	@	30
Nutmeg.....	95	@	97½
Whole Pepper...	14¼	@	14¾
Pimento.....	16	@	17½
Gr'nd Allsp prdz	—	@	1 12
do Cassia do ..	—	@	1 50
do Cloves do..	—	@	1 50
do Mustard do	—	@	1 50
do Ginger do..	—	@	1 00
do Pepper do..	—	@	1 00
do Mace do....	—	@	2 00
Bowen's Pnre Ground ₱ lb	—	@	50

SUGAR, ETC.

Cal. Cube psr lb..	—	@	13½
Circle A crusned	—	@	13½
Powdersd.....	—	@	13¾
Fine crushed...	—	@	13½
Granulatsd.....	—	@	13
Golden C.....	—	@	11½
Hawaiian.....	10	@	11
Cal. Syrup in kgs	—	@	72½
Hawaiian Molasses.....	25	@	27½

TEA.

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BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

A. MAILLIARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotats Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, San Bruno, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $100.

P. STANTON, Sacramento, Cal., breeder of choice Jersey Cattle. Bulls, Cows and Calves for sale.

SHEEP AND GOATS.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

LANDRUM & RODGERS, Watsonville, Cal., breeders of Pure Breed Angora Goats.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

M. FALLON, Cor. Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Eggs for Hatching from Pure Bred Fowls.

J. M. KERLINGER, Ellis, San Joaquin Co., Brown Leghorns a specialty. A few Pure Brahmas and White Leghorns for sale cheap, to close.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas and B. B. Red Game Bantams. Also Eggs.

SWINE.

ALFRED PARKER, Bellota, San Joaquin Co., Cal., Breeder of Improved Berkshire Swine.

Awarded the Highest Medal at Vienna.

E. & H. T. ANTHONY & CO.,

591 Broadway, New York,

(Opp. Metropolitan Hotel,)

Manufacturers, Importers & Dealers in

ENGRAVINGS, CHROMOS and FRAMES,

STEREOSCOPES & VIEWS.

ALBUMS, GRAPHOSCOPES, PHOTOGRAPHS

And kindred goods—Celebrities, Actresses, etc.

Photographic Materials.

We are Headquarters for everything in the way of

STEREOPTICONS and MAGIC LANTERNS,

Being manufacturers of the Micro-Scientific Lantern Stereo-Panopticon, University Stereopticon, Advertiser's Stereopticon, Artopticon, School Lantern, Family Lantern, People's Lantern, each style being the best of its class in the market. Beautiful Photographic Transparencies of Statuary and Engravings for the window.

Catalogues of Lanterns and Slides, with directions for using, sent on application. Any enterprising man can make money with a Magic Lantern. ☞ A full stock of views of the Exposition Buildings and their contents.

☞ Cut out this advertisement for reference. ☜

PACIFIC RURAL PRESS,

A first-class 16-page Agricultural Home Journal, filled with fresh, valuable and interesting reading. Every farmer and ruralist should take it. It is immensely popular. Subscription, $4 a year.

DEWEY & CO., Publishers.

No. 224 Sansome street, SAN FRANCISCO

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER,

521 Clay Street, S. F.

Blank Books Ruled, Printed, and Bound to Order

BERKSHIRES.

The subscriber has for sale 10 head of two and three-year-old Pure English Berkshire Boars and Sows, imported from Kentucky; extra fine animals.

PETER SAXE, Importer, at Commercial Hotel. San Francisco, Nov. 14th, 1876.

Death to Gophers and all Other Rodents.

A FEW VERY FINE ENGLISH FERRETS FOR SALE. JUST IMPORTED.

Address, T. P. HINDE, Anaheim, Cal.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

---

25 MIXED CARDS, with name neatly printed 10 cents. C. SMITH & CO., Gresn Brook, N. Y

WOODLAND, CAL., Aug. 8th, 1876.

MESSRS. DEWEY & CO.—*Gents:* Your letter containing the patent for my Centennial churn has come duly to hand, and you will please accept my many thanks for the prompt manner in which you attended to the business intrusted to your care, and I will take great pleasure in recommending you to any one having anything to attend to in your line. I am having a number of the churns put up, which will be ready for sale in a few weeks. Yours truly, JAMES ROOT.

CALIFORNIA FARMERS' MUTUAL

Fire Insurance Association,

No. 38 California Street,

(GRANGERS' BUILDING,)

SAN FRANCISCO, CAL

Capital	$200,000 00
Assets, October 15, 1876	268,716 52

MUTUAL PLAN.

	AMOUNT.	PREMIUMS.
Risks written to Oct. 1, '76	$5,181,591.00	$114,445.57
Less Amount Canceled	300,644.00	6,297.50
Amount in force, Oct. 1, '76	$4,880,947.00	$108,148.07
Losses paid		$7,251.00

CASH PLAN.

	AMOUNT.	PREMIUMS.
Risks written to Oct. 1, '76	$2,585,914.19	$51,606.96
Less Canceled and Expired	976,908.00	$19,538.16
Amount in force, Oct. 1, '76	$1,609,006.19	$32,068.80
Losses paid		$10,153.71

OFFICERS.

J. D. BLANCHAR.....PRESIDENT
I. G. GARDNER.....VICE-PRESIDENT
G. P. KELLOGG.....TREASURER
A. W. THOMPSON.....ATTORNEY
FERD. K. RULE.....SECRETARY

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J. D. Blanchar.....San Francisco
G. P. Kellogg.....Salinas
I. G. Gardner.....San Francisco
Chas. Laird.....Salinas
Uriah Wood.....San Benito
A. B. Nally.....Santa Rosa
A. W. Thompson.....San Francisco
A. D. Logan.....Colusa
I. C. Steele.....San Mateo
G. W. Colby.....Butte County
A. Wolf.....Stockton
C. J. Cressey.....Oakland
J. C. Merryfield.....Dixon
E. W. Steele.....San Luis Obispo
C. S. Abbott.....Monterey
Dr. T. Flint.....Hollister

Farm property insured at actual cost on the Mutual Plan. Other desirable property insured, and rated according to merit.

Grangers' Bank of California,

42 California Street,

SAN FRANCISCO.

Authorized Capital. $5,000,000.

OFFICERS:

PRESIDENT.....GILBERT W. COLBY.
MANAGING DIRECTOR.....C. J. CRESSEY.
CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

The Bank was opened on the first of August, 1874, for the transaction of general banking business.

ANGORA

ROBE and GLOVE COMPANY

San Jose, California,

Capital Stock, $50,000.

C. P. BAILEY, President, J. LEWIS, Secretary,

J. W. HINDS, Treasurer.

DIRECTORS:—C. P. Bailey, J. W. Hinds, Jackson Lewis, C. H. Lapham, Return Roberts.

Manufacture, from Angora Goat Skins,

FURS FOR ROBES,

Mats, Robes, Gloves, Etc.

SMITH & WESSON'S



New Model. 38 Calibre. Central Fire. With Automatic Cartridge Ejector

NOW READY.

For convenience, power and accuracy, it is *unequalled*. If your merchant does not keep them, order direct from the Agency, *79 Chambers St.* New York. M. W. ROBINSON, Gen'l Agent.

INTERNATIONAL HOTEL

ALL NEWLY FURNISHED,

824 & 826 Kearny St., - San Francisco, Cal.

$1.50 & $2 per day. Free Coach to the House.

H. C. PATRIDGE, - Proprietor

Nurserymen.

STOCKTON NURSERIES

Established in 1852,

W. B. WEST, Proprietor.

FRUIT AND ORNAMENTAL TREES,

EVERGREENS,

Shrubs and Greenhouse Plants,

Comprising everything NEW and RARE in my line.

SPECIALTIES:

Raisin Grapes, Figs, Oranges, Lemons,

And Other Tropical Fruits.

I have imported superior Figs and Raisin Grapes direct from the place of their nativity in Europe, and having propagated large quantities, can now offer them to the trade and the public on the

Most Reasonable Terms.

200,000

Australian Gum Trees For Sale,

—AT—

STRATTON'S GUM TREE FOREST NURSERY,

HAYWARDS, ALAMEDA CO., CAL.

These trees are from five to twelve inches high, transplanted regularly into boxes 30x20 inches square, weighing 150 pounds. 150 or 500 in each box, in splendid condition for transplanting to their permanent location. **Price, $6 to $12 per 1,000.** Will contract to plant the trees, or furnish superintendence, on low terms. Cash must accompany orders for less than $50, or if greater than that amount, city reference must be given. Address,

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The largest and most complete stock of Fruit Trees north of San Francisco bay; also, a general assortment of Shade Trees, Evergreen Trees and Shrubs, Green House Plants, etc. Eucalyptus in variety. Prices low. Catalogues and list of prices furnished on application.

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To Farmers and all others who put Barbs upon Wire Fences, Making a Barbed Wire Fence, and to all Manufacturers and Dealers in Fence Barbs and Barbed Fence Wire.

You are hereby notified, that in putting barbs upon wire, making a barbed wire fence, or in using or dealing in barbs or barbed fence wire, not made under license from us, you are infringing upon our patents, and we shall hold you strictly accountable for damages for all infringements of Letters Patent, Nos. 66,182, 67,117, 74,379, 84,062, 153,965, 157,124, 157,508, 164,181, 173,667; re-issues, Nos. 7,136, 6,976, 6,902, 7,035, 7,036 6,913, 6,914, and other patents. Copies of our claims can be obtained of our attorneys, Coburn and Thacher, Chicago, Ill., or of our counsel, Thos. H. Dodge, Worcester, Mass.

WASHBURN & MOEN MANUF'G CO., Worcester, Mass.

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Sole owners and manufacturers, to whom orders for Barb Fence or for Loose Barbs should be addressed.

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Something to Keep!
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Eighteen Photo-lithographic Views of the Pacific Coast—Golden Gate, San Francisco, Mission San Juan Capistrano, Cliff House and Seal Rocks, Sutter's Mill, Quartz Mill and Mining, Hydraulic Mining, Yosemite Fall, Big Trees, Vernal Fall, Geyser Canyon, Donner Lake, Uncle Sam, from Lakeport, Mount Diablo, from Benicia, Mount Shasta, Fort Point, S. F., University at Berkeley, State Capitol; all enclosed, in an oroide box, with the design of the U. S. $20 gold piece stamped thereon. Sent postpaid for 50 cents; four for a dollar. Send postage stamps, P. O. order, currency, gold or silver. Address,

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These lands are in the great fruit belt of Los Angeles County,—only six miles from the city are peculiarly adapted to semi-tropical fruits, and adjoin the famous Lake Vineyard of Hon. B. D. Wilson. The Southern Pacific railroad runs through the land; convenient to schoolhouse and church; water in abundance, and the water-right is sold with the land. Title perfect. A Map of the tract may be seen at the office of Mayor Beaudry, on Spring street, opposite City Council rooms. References may be made to HON. B. D. WILSON or J. DE BARTH SHORB, at Lake Vineyard, who will take pleasure in showing the lands. Also, to MAYOR BEAUDRY or D. FREEMAN, Los Angeles city.

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Containing 300 acres, on the old road leading from Auburn to Sacramento, in Placer county, seven miles south of Auburn and four miles east of O. P. R. R.; 12 acres of the best alfalfa in the county on it sown last spring, and 40 tons of alfalfa cut off it this summer, and with irrigating it good next summer it will cut 80 tons, and have a seed crop next fall two feet high, and plenty more land on the farm just as good as that is for alfalfa. For further particulars, address by letter,

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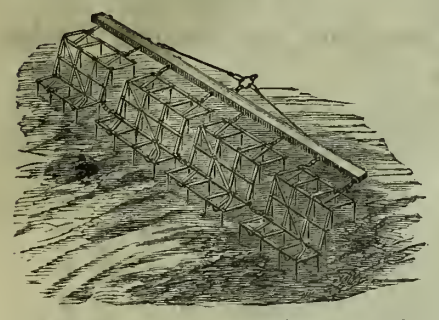
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This Harrow was Awarded the First Premium at the California State Fair in 1875.

The undersigned, having purchased the patent right of this Harrow for California, are now manufacturing them in Roseville, Placer County, and would call the attention of Farmers to the superior merits of this Harrow over all others now in use.

As its name indicates, it is made in sections of about three feet in width, each section having four bars, in which the teeth are inserted, and by connecting the sections with links, the Harrow is formed.

Should a farmer require a Harrow upon his farm to do all kinds of work, he should purchase six sections, which would be suitable for four horses, and would cut 18 feet in width; by disconnecting two sections he will have a two or three-horse Harrow, cutting about 13 feet. One section alone is complete in itself, and suitable for garden work, with one horse. The Harrows are made of the best quality of iron, and with teeth warranted to be steel.

We give a few of the many reasons why we claim superiority for these Harrows over all others in use on this Coast:

First—By the lightness of draft, taking into consideration the amount of work it does.

Second—By working uneven or rolling ground just as well and as evenly as if it was entirely level.

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Prices, from $12.50 *to* $15.00 *per Section.*

All orders sent to

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Roseville, Placer Co.,

Will be promptly attended to, and satisfaction guaranteed in all cases.

CAUTION.

It has come to our notice that certain parties are now making this Harrow in this State, and that several of them have been sent here from the East. Now this is to *caution* all persons against making, selling or buying them, so made and offered for sale, as we shall enforce our rights in relation to the matter, and would call the attention of all persons infringing upon our patent, to the *law* in regard to it.

BREWSTER & CO.,

Roseville, July 15th, 1876.

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AMERICAN CHIEF



GANG PLOW.

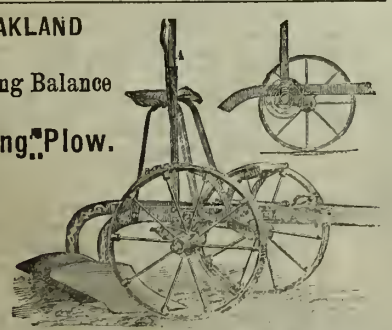
Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

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Spring Balance Gang Plow.



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SHEEP WASH,

$2 Per Gallon.

After dipping the Sheep, is useful for Preserving Wet Hides, Destroying the Vine Pest, and for Disinfecting Purposes, Etc.

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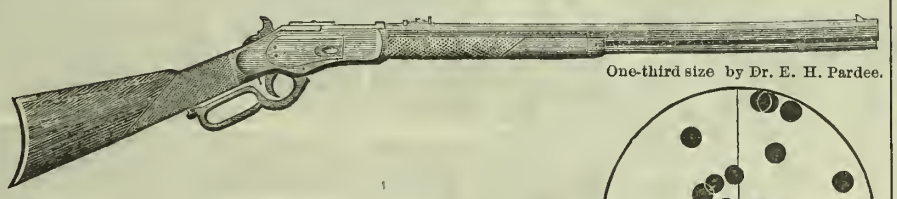
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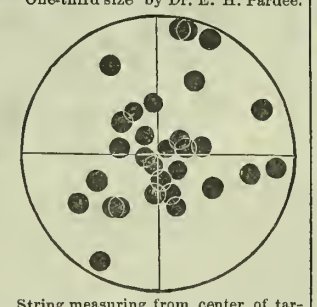
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String measuring from center of target to center of each shot, 32¾ inches. Average distance of each shot, 1 9-100 inches.

The Strength of all Its Parts,

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Commends it to the attention of all who use a Rifle, either for Hunting Defense, or Target Shooting.

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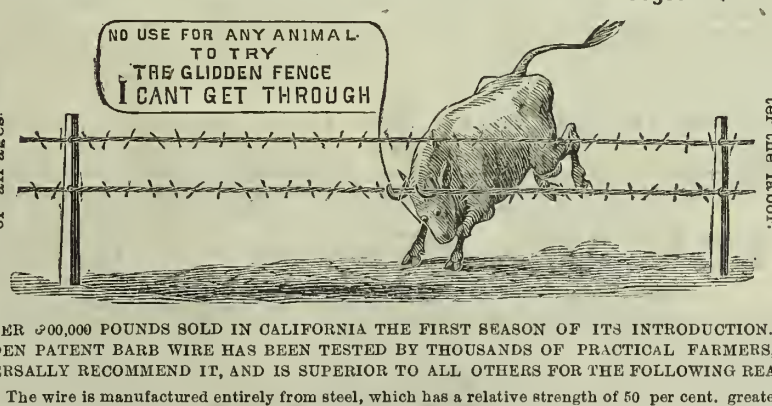
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About one-half the cost of any other good fence, and can be put up for one-quarter the labor.

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Self-Regulating, Farm Pumping, Railroad and Power



WINDMILLS,

Pumps & Fixtures,

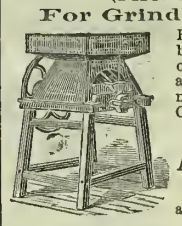
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The "ENTERPRISE" FEED MILL

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For Grinding Barley, Etc.,



Equally as commendable, has now been tested to entire satisfaction of all, and meets the demand for an article of that kind that has not been supplied on the Pacific Coast heretofore.

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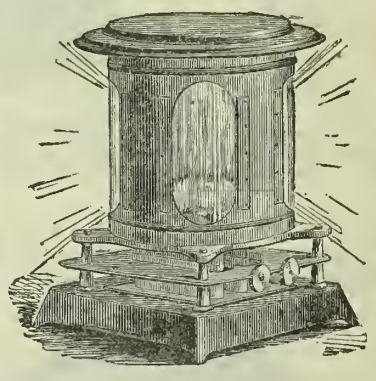
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NO SMOKE, NO SMELL,

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For Exclusion of Flies, Mosquitos Etc.,

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The stiles of the upper sash are continued to form a panel, in which is placed a wire netting, so that when the upper sash is lowered the screen follows the sash and fills the space. The lower screen operates in a similar manner, but is made half the thickness of sash, and is detachable. Both screens can be made thin and detachable if so desired. In most case the top screen is sufficient. Both of the screens are protected from the weather, and are entirely out of sight when not in use. For particulars, apply to

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BAKER & HAMILTON, *Sole Agents for Pacific Coast.*

No Other Machine Presents such an Array of Useful Devices; and taken together they Constitute the Gorham Seeder, a Machine Distinct and Separate from all Others of its Class.

The Increasing Demand for these Seeders proves beyond the shadow of a doubt that they are the best and most reliable ever offered to the Public.

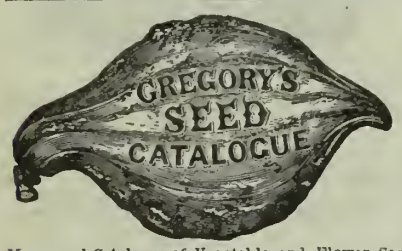


It has stood the most severe tests of time and use, and is now the Standard Seeder of the United States. Its numerous points of excellence, unequaled regularity of sowing the different grains and its manifest superiority over all others, have won for it this high reputation.

We have just received the appointment as Sole Agents of these Machines for this Coast, and will hereafter keep a full stock of them, as follows: 10-foot double gear machines, $150; 12-foot double gear machines, $170; 14-foot double gear machines, $200. The 10-foot machine, with four horses, will seed 25 acres per day; the 12-foot machine will seed 34 acres per day; the 14-foot machine, with six horses, will seed 40 acres per day. ☞ Extras of all parts always found with us. Address,

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20 BAGS selected SEED OATS,

JUST RECEIVED BY STEAMER, FOR SALE BY

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Manufacturers of Linseed and Castor Oils,

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Beware of Adulterated Linseed Oil.

Purchasers of our Oil, boiled or raw, in barrels, should be particular to notice that our trade mark, pasted over the bungs, has not been tampered with. The trade mark is just put on to secure its purity, and prevent adulterations with fish oils or other cheap oils. Barrels having our brand have been purchased and filled with Adulterated Oil, and sold as our own make. This we can not entirely prevent, but we fully guarantee the purity of all oils taken directly from our works.

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BRONZE TURKEYS,

Pekin Ducks Embden Geese.

SAFE ARRIVAL OF FOWLS GUARANTEED.



Eggs Shipped to Any Part of the Coast to Hatch After Arrival.

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Also, Thoroughbred Southdown Sheep.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, ETC.

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PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, DECEMBER 16, 1876. [Number 25.

Lewistown Narrows.

We print herewith an engraving showin another scene on the line of the Pennsylvania railroad. It is the Lewistown narrows. Lewistown is on the left bank of the beantiful Juniata river and is the largest town on its bank. Immediately east of the town, between it and Mifflin, the railroad passes through the Lewistown narrows, formed by the Black Log mountain on the south, and the Shade mountain on the north. These were formerly known as the Long narrows, and previous to the constrnction of the railroad there was but one house in them for a distance of 10 miles. The monntains rise abruptly from the river to the hight, in many places, of more than 1,000 feet, and their sidea are generally covered with a dense forest growth, giving an appearance of deep gloom to the gorge. Here and there the chain is partly broken, or its sides indented by ravines, and the rocks stand out in naked grandeur; but aa a rule, the walls of nature are intact, and the foliage covers all. The water flows peacefully through the channel it has carved, reflecting on its bosom the shadows of the giants it conquered in forming a paasage.

The best known Indian who ever lived within the limits of Pennsylvania had his home, at the time the whites entered the region, in the Kishicoquillas valley, not many miles above Lewistown, at what is still known as Logan's apring. This waa Logan, the Mingo chief, whose name is perpetuated in many localities, and whose renown figures in history and romance. He was the son of Shikellimy, a Caynga chief, who dwelt at Fort Augusta, where Snnbury, Pa., now stands, about 1742, and was there converted to Christianity by the Moravian missionaries. His son was baptiaed by these missionaries, and named by his father atter James Logan, aecretary of the province of Pennsylvania. Mingo was the name given by the Delaware Indiana to the Iroquois, or Six Nations, and the Cayugas being one of them, the title of Mingo was conferred upon Logan. When in the prime of manhood, he, with his family, migrated to the West, where he led a ventnresome and conspicuous career, taking, for motives of revenge, an active part in hostilities against the whites on the Ohio, and was eventually killed, by a Shawnee Indian, in a drunken quarrel.

Thus ended the life of a man who, savage though he was, possessed some of the nobleat traits of humanity, and who, unquestionably, was endowed with natural abilities of a high order. While his adventnres and achievements are surpassed by many Indian heroes, yet a singular attraction has alwaya olung to his history and his name, and the latter is perpetuated by the white men in connties, villages, townships, streams, and many other connections. The traveler over the Pennsylvania railroad, as he enters the excellent hotel of the company at Altoona, will see—conspicnonsly painted npon the wall of the great dining room—a picture representing, in all the gorgeousness of savage dress, Logan, the Mingo chief.

A Tulare Breeding Ranch.—We are informed that W. R. Robinson & Brother have started a stock ranch at Grangeville, Tulare connty, where they will breed all kinds of thoroughbred stock. They have begun by ordering a thoronghbred Berkshire boar and two sowa from Col. Peter Saxe, whoae advertisement as importer has been read in the Rural Press. We learn from Mr. Saxe that hia advertisement has called out a bunch of orders.

A bill introdnced by Senator Merrimon provides that the Secretary of State, or in case of his death, the Secretary of the Treasury, shall snceed to the presidency in the event of the death or resignation of both president and vice president.

Benefits will be given in all the theaters in this city in aid of the sufferers by the great calamity in Brooklyn.

Notes on Sweet Potatoes.

We read in the proceedings of the American Institnte ,farmers' club, some notes of sweet potato growing in the Southern States, which may be of interest: The Nansemond and Southern Queen are common varieties north of Virginia. In North Carolina the cultivation of the sweet potato crop, both for sale and home consumption, is very extensive. Three kinds are grown there, viz.: Old-fashioned yams, fibrous on skin; red or Bermuda, delicate and white inside; Nansemond, the most prolific and hardy. These are not considered fit to eat until kept. In order to have early crops whole and sonnd potatoes are placed in an excavated piece of dry gronnd, near to one another, and covered with a dry, prepared soil. When well sprouted, these are broken off and planted in hills. The poorest sandy soil abont Wilmington, N. C., produces the best quality of sweet potatoes. Stable-yard manure is used to increase the quantity, but does not improve the quality. The largest crop known was prodnced in South Carolina by what is called "lay culture," viz.: laying the potatoes on the ground and covering them with decayed rice straw. The yield was 250 bushels to the acre; usual yield, 50 to 100 bushels per acre.

General James W. Barnes, of Texas, said that the sweet potato crop is a prolific one in Texas. In sonthern portions of that State many farmers do not dig these potatoea except as they need them, but leave them in the gronnd, where they continue to grow. The yam does not bear transportation well.



LEWISTOWN NARROWS.

President Ely referred to the plans of growers in Vineland, N. J., who kept their sweet potatoes by placing them within reach of the influence of a portable furnace, which sends out enough heat to take off the dampness and chill, but not sufficient to sprout them.

Mr. Hndson said that in Boston and other cities the dealers had furnaces especially arranged for the storing of sweet potatoes; these furnished a somewhat high temperatnre, and always an even one—the main thing being to keep them in a dry, equable temperature.

The war between Egypt and Abyssinia is to be prosecuted.

Grain Bags.

Although the season is just now plunged in uncertainties, and the fearful are drawing dark inferences of a dry and unfavorable season, there is still the promise of seed-time and harvest so long aa the world shall endnre. And the thonght of the harvest in thia State is inseparable from the thonght of bags. As has been shown in onr market reviews from week to week during the last two months the bag trade has been greatly depressed. Unwise speculation among dealers resulted in failure, and large quantities of bags and bagging materiala have been thrown npon the market at a time when there was no consumptive demand; the consequence is that the price has fallen to a notch below anything that is recorded in the history of the bag trade in this State. At present prices wheat can be sacked for about six cents per cental. This is cheaper than it haa been done during burlap times or before. Purchases can now be made at 8¾o at wholesale for standard wheat bags. Let us compare this with the rates rnling at this time during the last five years. Consnlting onr files, we find the prices at thia date as follows: 1872, 15¼c; 1873, 12@13c; 1874, 13@14c; 1875, 10@10½c; 1876, 8¾o.

When prices are thus low, the question arises whether a man who has the money and a prospective need for bags can do better than make his investment now and realize the advance, which seems as well assured as anything in the range of probabilities can be. If city dealers carry over the bags nntil the next harvest they have storage to pay and they will insist upon interest on the money as well as their nsnal profit. If tha farmer has the money to do something with, we think it would appear safer to huy bags at the present low rate than almost any other investment he could make. He need not pay storage and he can save the interest instead of paying it to the oity dealer. With insurance npon the purchase he need fear no loss, and all the chances are on the side of his sacking his grain cheaper than he ever did it before.

This we make as a snggestion merely. We know men who bonght a year ago and held over and made a profit for themselves, and the price was higher then than now. We mention the matter as worthy the thought of those who have a snrplns of cash with no immediate use for it, thinking that thus a certain amount of money could he profitably employed.

Root Growing in Canada.—Onr root growers will be interested to know what the Canadians consider large roots. At a root show, held by Mr. William Rennie, seedsman, at Toronto, on Wednesday, November 15th, 1876, the jndges declared the following weights to have been attained by the snccessfnl competitors (six roots of each variety), viz.: Rennie's prize pnrple top Swede turnip, 126 pounds; long red mangel wurtzel, 169½ pounds (second prize, 168 pounds); yellow globe mangel wurtzel, 211 pounds; white Belgian carrot, 37½ pounds; long red carrot, 27 ponnds (second prize, 25 pounds). The heaviest collection of an exhibtor weighed 567½ ponnds. Single roots were as follows: Rennie's prize Swede, 30¾ pounds; long red mangel, 38¼ pounds; yellow globe mangel, 41 pounds; white Belgian carrot, 9¼ pounds; red carrot, 7 pounds. The following specimens were shown (additional to prize list) by an exhibitor (six roots of each), viz.: parsnip, 28 pounds; long yellow mangel wurtzel, 144 pounds; white sugar beet, 149½ pounds. The roots were cleaned and trimmed.

Piper's bill concerning the Black Hills country proposes the immediate oreation of a Territorial Government for that region. He considers this very important and therefora will nrge the prompt passage of the bill.

Austria intends to appropriate 700,000 florins in order that her industries may be worthily represented at the Paris Exposition of 1878. Of this sum 200,000 is to be employed in 1877.

CORRESPONDENCE.

Santa Barbara County.

EDITORS PRESS:—While the greater portion of the State has been favored with plentiful rain, the county of Santa Barbara has, with the exception of a light shower in the latter part of October, been without any rain as yet and with no prospect of any in the near future. With cloudless skies and a balmy, unusually high degree of temperature, the days follow one another and give no sign of the much needed rain. Already the more somber-hned weather prophets are heginuing to proguostioate "another dry year," and tell appalling stories of the suffering and loss of oattle in the memorable season of 1863-64, when there was hut eight inches of rain during the two years. We do not anticipate any such dire visitation, however.

The natives assert that there has been a gradual ohange in the climate during the last decade, and for a causc claim it to he owing to the large influx of "Yankees, who have brought their d—d climate with them." It is certain that our farmers, generally, have faith in the climate, as most of the barley crop is already in and a good many early potatoes have been planted.

Chance for Stock Growing.

The powerful influence being exerted hy the RURAL PRESS in advancing the dairy and stock interests of the State ought to meet with hearty commendation and encouragement from the residents of Santa Barbara county. An inspection of the country from Gaviota pass to the Rincon cannot fail to impress the observer with the fact that few sections are more peculiarly fitted for the successful conduct of stock raising. So strongly have I become impressed with this that it seems proper to nrge upon our people the facilities they possess for engaging in this business. The rich fields of the Patera and the lovely valleys of the Montecito and Carpinteria, melting into the foothills or stretching back into the canyons of the Santa Inez, plentifnlly watered by never failing streams which have their sonrce among the rocky wildernesses of the mountains, seem intended hy Natnre as the grazier's paradise.

Has Fruit Growing Prospered?

The valley of Santa Barbara has been termed the home of the almond, the olive and the walnut. It is certain that these, as well as all other of the semi-tropical fruits, find here a congenial soil and fitly-tempered sun for their successful growth. It is a question, however, if the extent to which this cultivation has heen carried has not heen a detriment rather than an advantsge to the connty.

In 1868-69-70 and years following, an influx of newspaper correspondents and enthusiasts heralded to the world the wonderful wealth of the soil and surpassing loveliness of the climate. Glowing accounts were given of the results which would attend the efforts of the agriculturist if directed to the propagation of the almond and the olive. Nordhoff estimated the product of the almond, five years from the seed, at $240 per acre; in ten years, $400 per acre; and the olive when in full hearing would yield an annual return of $900 per acre. As a result the planting of these (and other fruits to a more limited extent) was engaged in very largely. Some of the best ranches were given up almost entirely to their cultivation. The consequence of this ornamental—to use a mild term—style of farming is beginning to have its legiiimate effect. The high price of land and the long time to wait for a return precluded the settlement of the county hy farmers of small means, and in their stead came a class of men of wealth, gentlemen of leisnre, who could afford to wait for eight or ten years in order that at the end of that time they might have a small fortune with the expenditure of little labor and care They had a sincere antipathy towards Charles Lamb's "Sabbathless Satan," "who first invented work and bound the free and holiday-rejoicing spirit down." Labor was to a certain degree degraded and we find the largest land holder in the county tilling his soil and picking his almonds by "Chinese chesp labor."

If one-half of the capital invested in fruit cultnre in this county, five years sgo, could have heen directed towards the purchase of choice breeding cattle and horses and the manufacture of dairy products, it is not difficult to realize that its material wealth and prosperity would have heen more than double what it is to-day.

The views which I have merely outlined are capahle of being considerably enlarged, perhaps to the advantage of other sections of the State. If agreeahle to your sense of duty towards the readers of the RURAL, and your readers, I should take pleasure in giving some "facts and figures" which will, I think, support my opinions thus generally expressed.

WABOIS.

Santa Barbara, Dec. 5th, 1876.

[We shall oertainly he glad to receive interesting facts in this connection.—EDS. PRESS.]

Westminster Colony, Los Angeles Co.

EDITORS PRESS:—Three years ago, when seeking a home in southern California, we decided to locate here. Our reasons for selecting this point in preference to others, were the moral features of the colony, the low price of land, water plenty, good and oheap, fine climate, productiveness of the soil and nearness to the ocean, thus securing eheap transportation.

These points still hold good. Each settler agrees to encourage and support sanctuary services, and pledges himself to neither manufaoture, buy or sell intoxicating liquors, except for medioinal purposes. These have been and will he the promiuent points of this colony, and no one can douht that the settlers who have come here under these regulations make desirable neighbors. We know of hut one other settlement on this coast based on these principles, that is Lompoc, Santa Barbara county. Everywhere else will he found bar-rooms, saloons and carousing. For convenience in making real estate transfers and other legal papers, we have a notary public, hut have no justice of the peace, no constable, no law suits; all is harmony and good feeling. The price of land here is cheaper than elsewhere, heing held at from $25 to $35 per acre for unimproved, while in other settlements the price is from $40 to $100. For water, no place can compete with us, good

Flowing Artesian Wells

Being readily obtained. These wells give plenty of clear, oool, soft water for household use, irrigating and stock. They oost on an aver ge not over $200, and will irrigate from 30 to 160 acres, according to the flow obtained. This gives us permanent relief from "water bills," which are elsewhere a heavy drain on settlers. Water charges vary in different localities, ranging from $2 to $5 per acre yearly. In some places there is a further charge for water for household nse, and a monthly charge of 25 cents for each head of stock watered. These rates will in a few years amount to a oonsiderable sum, which is saved here. Freedom to take water when wanted and run it where and as long as you choose, independent of any one else's "water right," is what few sections can offer.

Climate, Soil and Productions.

Our climate is delightful; the summers are cooler than in the interior, the merourv seldom reaching 90 deg. The winters are warmer than nearer the San Bernardino mountains. Our soil is a rich, mellow, sandy loam, easily worked and retaining moisturo without baking on top. We grow large crops of barley, corn, beans, potatoes, etc., and wheat yields well. Two crops are grown from the same land. All kinds of vegetables do well here, and fruits and herries of all kinds seem to he in their native element. Anaheim fruit dealers say our grapes are the finest they have ever seen; and some sun-dried raisins, made hy Mrs. Danskin, are larger and more on the hunches than any we ever saw. In quality they equal the hest imported. Apples, apricots and pears are large and of the finest flavor. Prunes that ripened this year were very nice and our peaches were the best that we have found in the State, heing rich and jnicy, and reminding us of the New Jersey and Delaware fruit found in the New York market. The walnut and almond grow well, and prohahly by another year the latter will bear. Italian ohestnnts have horne here. Our orange trees are healthy and growing rapidly. None have fruited here, hut we helieve this section will not be in the hackground on the tropical fruit qnestion. At Anaheim, only six miles from us, very fine oranges are grown.

Vessels calling at Anaheim landing furnish cheap transportation to San Francisco. From Anaheim we have railroad connection with San Francisco and the East, and before spring will have similar connection with Arizona. This gives desirahle ontlets for produce and the opposition lines keep rates low.

Sure Crops.

While on acconnt of the injnry to the State dry seasons are to he feared, they do not alarm us so far as our own section is concerned. With plenty of water here, crops are sure and dry years will be our hest years.

Dairying, Etc.

Dairying operations have heen begun, and this branch promises to take a prominent place here, it proving very profitable. Most of our settlers are adopting the plan of keeping two or three cows, some hogs and several hens. The trouhle is small compared with the profits thns realized. Others are going extensively into hog and stock raising, feeding instead of shipping their grain. For this mixed farming there is prohably no hetter section than ours.

Success.

The colony has been a perfect success; there has heen no excitement or rush, hut a steady, healthy growth. In a section that was five years sgo nothing but a sheep range, we have well improved farms and a population of about 1,000. We have two churches, Presbyterian and Methodist, good schools, two stores selling goods at the lowest possible figures, good blacksmiths and carpenters, a harness maker and a wagon maker. A good shoemaker would do well here. The hotel is good. There is land still unsold, and in all our travels through this and San Bernardino counties we have found no settlement offering such advantages, or so free from disadvantages, as this locality.

JOHN TORREY, JR.

Westminster, Dec. 6th, 1876.

[We are glad to hear such words of oheer and progress.—EDS. PRESS.]

Coal in Santa Cruz County.

EDITORS PRESS:—Sometime ago you copied from one of the local papers a statement that the Vulcan coal company, whose prospecting works are located on a hranch of the Corralitos creek, Santa Cruz county, had made such discoveries of ooal as to justify the expectation of early shipments to San Francisco. This statement was prematnre, as they had found nothing like a permanent lead until last week, when Mr. Wm. Strader, the indefatigable representative proprietor of the works, accidentally made the disoovery of a vein of coal, which, if it continues to improve as it has up to the present time, will realize all that has been hoped of these mines. The indications of coal which induced the inauguration of these works, consisted chiefly of croppings on the north side of the creek and 15 to 20 feet above it. The croppings indicated a vein a foot or more thick, dipping at an angle of about 35 deg. into the mountain northward. A number of sacks of these croppings were sent to San Francisco last year, and tested with satisfactory results.

The company sunk a shaft 160 feet near this vein; at 150 feet they ran northward a level 225 feet, thinking to strike the main vein at the distance indicated hy the dip at the surface. The perpendicular shaft is five hy ten feet and the level five hy five feet, all well timbered. All of the excavations have been in a friable sand rock, occasionally heing hard enough to require hlasting. All the coal indications at this depth were occasional patches of distnrbed bituminous strata, showing that they were detached portions of the main vein, hut in no manner pointing to the exact location of that vein. Owing to the great depth there was such an accumulation of water as to require the services of the hoisting engine several hours of the day to draw the water to the snrface. For a while past the workmen in the drift were troubled with foul air, and it was found necessary to force down the shaft a current of pure air hy some contrivance within the reach of the inventive genins of the parties. Some kind of a revolving fan was decided upon, and while seeking a board to be nsed in its oonstruction, Mr. Strader disoovered, in the hill on the south side of the creek, and about 40 feet above it, the croppings of the vein we have already alluded to. This vein has a dip to the south at an angle of ahont 50 deg., runs about east and west, and is near four feet in thickness. A shaft, four by five feet on the incline, has heen snnk abont five feet. It has improved every inch it has been sunk, and from thin layers of perfect coal at the surface, with considerable imperfect coal between, it has, at the present depth, thickened np its perfect veins to near an inch in thickness, with hut little imperfect ooal between. The vein at this altitude has a clay wall on its lower side, with sandrock on its npper. If this vein proves a gennine one, the date of its discovery will have been an epoch in the industrial interests of this county; for all these mountains have equal indioations of coal, from Santa Cruz to the Pajaro river, and no doubt ocntinue in the Gabilan range. Railroads will be built to carry the coal to market; towns and villages will he built all through and along these mountains. A home market will be created for most of the agricultural products of these valleys, and new life and impetus given to business in this region not known since the days of gold disoovery.

Before closing we would state that this company have sunk shafts and run tunnels at several other places in this vicinity within the last two years, with ahout the same results as in the instance mentioned. The zeal that this company has manifested to open up this great interest is certainly to he commended; for men of less nerve under equal discouragements wonld have given np the enterprise, while no less energy and perseverance than has been shown could have achieved the present snccess. We shall watch the working of this vein for the next few weeks with a great deal of interest, and will keep your readers informed of the results.

C. N. W.

Watsonville, Decemher 4th, 1876.

Chufas.

EDITORS PRESS:—I send you a sample of ohufas raised by me. I got two pounds of seed from a friend in Florida, and from that amonnt of seed I have gathered 400 pounds of nuts, and got them in May, rather too late to get a full yield. I don't think they can be beat hy anything for yielding, and for hogs their fattening qualities are four times as great as corn, and their yield three times greater, and you don't have the trouble of digging them. You can turn in any kind of stock except hogs, and let them eat the tops off while green; it makes them stool out and fill the rows completely. Then turn your hogs in and let them take it. Any land that will grow corn will grow chufas. As for a nut to eat, I will let you be the judges of them.

L. L. BEQUETTE.

Downey City, California.

[The nuts are very fine, well filled and of rich meat. The flavor is very pleasant.—EDS. PRESS.]

HORTICULTURE.

Cultivation of Semi-Tropical Fruits.

J. De Barth Shorb, one of the leading fruit growers of Los Angeles, writes an article on the above theme for *Hall's Land Journal* for December. Some of our readers may find points of practical value in his clear statements:

Soils.

The cultivation of semi-tropical fruits originated, as did all the other important agricultural and horticultural interests of the State to-day, with the missionary fathers, but the wine interest has only assumed large proportions during the last 10 years. The orange, lemon and lime trees flourish and thrive well, producing good merchantable fruit, on a great variety of soils, hnt a deep, light gravelly loam seems hest adapted for the produotion of large and well flavored fruit and continued health of the trees. On soils of an argillaceous character of moderate depth to the "hard pan" or sub-soil, the trees do not preserve as vigorous condition, or produce as hright and sweet fruit, as on the loamy soils; nor do I think they would attain the great age they have been known to do in this county and in parts of Europe.

Planting and Cultivation.

The number of orange trees planted to the acre is from 49 to 69, or 30 to 25 feet apart each way. I consider, however, the lesser number and greater distance apart to be better, as the orange roots are wide spreading and require this space to perform their part in the economy of the life of the tree. We have, however, trees on this property that are fully 40 years old, and 18 inches in diameter, that are still vigorous and yielding immense crops of good fruit, although they are hut 20 feet apart; the oondition, however, heing exoeptionally favorable, and so not affecting the rule. An orange seedling requires about 10 years of age from the "seed" before it bears remunerative crops, bnt here proper care and cultivation may lessen this time by at least one or two years; while indifferent care and cultivation may extend the time quite as many. Budded or grafted trees produce fruit much earlier than the seedlings, the same general law applying to them as to frnit trees of temperate zones. Grafts or seedlings can always he purchased from three to five years old, from the different nurseries, at moderate prices, and hence the orchardist has at most hut a few years to wait for the result of his time, labor and expenditures. The ground hetween the trees can be nsed for general cultivation without injury or detriment to the growing trees, providing a small space is left on hotn sides of the trees for the proper extension of the roots. I do not recommend this conrse, however, nnless, on account of limited means and land, the orchardist requires to cultivate his ground to assist in the support of his family. The cnltivation of the soil preparatory to planting the trees, should be thorough and complete, and the holes to receive the trees should be large for many reasons.

Irrigation.

The present manner of irrigation and amonnt of water required differ widely, according to the character of the soil upon whioh the trees are planted, and also depend upon the subsequent cultivation. The trees, when young, are generally irrigated hy making a ring of earth around the top from six to ten inches deep, and from five to ten feet in diameter, this ring heing increased in size each year to correspond to the increased growth of the lateral or surface roots. At proper distances small ditches are run with a plow (a single furrow is sufficient), connecting with the rings of earth, and thronh these ditches the water is carried and distributed to each tree, filling np the rings with as much water as the tree reqnires at the time, which necessarily varies according to the atmospherical conditions.

After the ground has become sufficiently dried within the rings, the ground is broken with a hoe and the surface pnlverized, to prevent evaporation of the moistnre and "baking" of the soil.

When the topography of the ground admits, another plan is adopted in irrigation by throwing np borders of earth hetween each row of trees, so as to hold the water in check, and from head ditches run at right angles the water is turned on hetween the borders and allowed to flood the surface for sufficient time to thoroughly soak the ground; hreaking the ground as before described, and for similar reasons. When the land is of a clayey nature and the trees are well grown, I wonld always recommend irrigation of the entire surface, so as to give the reqnired moisture, plowing and pulverizing the soil afterwards.

The amount of labor required and expense incnrred in irrigation, hy either method, differs but little and should not exceed the sum of $10 per acre for the entire irrigating season, including the cost of cultivation of the soil. By a proper system of piping, whioh is now fast taking the place of open ditches, a thorough revolution in the methods of irrigation will necessarily follow. I helieve, eventually, where it is possible to obtain the necessary pressure on the pipe, that the trees will be irrigated hy throwing water on the tree, which is of vast benefit to them and the growing fruit, thereby

closely imitating Natnre's method, which is the best.

Production.

The prodnction of orange trees, in this county, varies as mnch as the average of cereals or fruit crops in the Eastern States, and this is due, principally, to the same causes —the position and fertility of the soil, the care and cultivation by the owner. By very carefnl estimates made in 1874, of the crops on an orchard of 436 trees, 309 of which were 12 years old from the seed (the balance being too yonng to bear), I obtained as a net result, over and above cost of transportation to San Francisco, commissions on sales, etc., $20.50 per tree, or an average of $1,435 per acre. I do not claim this amount as an average crop or result, bnt I do think that with proper care and attention the average can be made to equal $1,000 per acre on trees of 12 years of age. I have seen trees on our property that have yielded over 3 000 oranges per tree, which, sold at $20 per thousand, would give, per acre, a result of $4,140. The average price, for the past five years, throughout the county, to those who have shipped their fruit, has been between $20 and $25 per thousand; the present year the average will likely exceed this snm.

The Market.

I see no reason to donbt bnt that the market will remain the same for many years to come. The area npon which this culture can be successfully followed is necessarily limited; the popnlation and consumption in the State and adjoining Territories is rapidly increasing each year; new markets are opened up to us through the energy of the Southern and Central Pacific railway directory in extending their lines, and therefore I think the consumption will keep pace with the production and sustain the present market price. Another and most important reason to sustain this opinion rests in the fact that on this coast the oranges remain for a period of at least four to six months on the trees after they are matured without decay, thus giving us that period to ship in, while other orange producing countries are compelled to ship their fruit as soon as it is matured, and very often before; hence the demoralized condition of the orange market in our Eastern cities at certain seasons. While other countries are compelled to gather their entire crop in a very limited time we can supply the market only as fast as the consumption warrants.

A Shipment of Oranges to London.

Onr oranges are remarkable for their good keeping qualities when packed for market. I am indebted to Mr. Wm. Pridham, agent of Wells, Fargo & Co. in Los Angeles, for the following statement establishing this fact: "Eight boxes of oranges were gathered and shipped from my orchard about the last of March, 1875, to Wells, Fargo & Co.'s agents in London, Messrs. Eiris & Albin.

"They were shipped to San Francisco by steamer, thence overland to New York, and from there by steamer to Liverpool, where they arrived in perfect order and condition, not one being decayed, and gave such universal satisfaction that another shipment has been made lately to the same destination, with, I hope, similar resnlts."

The Lemon.

The lemon culture and its resnlts correspond to those of the orange; with the exception that it comes into bearing earlier and does not reqnire as much irrigation. In fact, it is almost an established principle in my mind that the lemon requires no irrigation whatever. The lemon is indigenous to the dry, arid sands of Syria, whence it was carried to France, and from there distribnted over the world; and to nndue forcing out of its natural condition may be attributed the diseases to which it is at present subjected in France, Italy and California. The lime interest promises excellent resnlts, but its futnre financial position remains to be established. They thrive well, produce most excellent frnit, bnt the market for them is not reliable. Of late years the walnnt interests have been discouraging, owing to some temporary causes not yet demonstrated, but inasmuch as we did produce, a few years ago, the best walnuts, and which brought the highest prices in the San Francisco market, I believe we will do so again.

Lake Vineyard. 1876.

The Swine Yard.

How to Cut and Cure Hams.

The *Farmers' Home Journal* gives the following: It is important that the meat, after dressing, should become thoroughly cool, and this will always be the case if it is kept over a night and day with the thermometer down to 40 degrees. Cut the shonlder blade, so as to make the middling as large as possible. Take out the ribs, and yonr doing so will leave only the shoulder and ham with the bone in them. These pieces should be neatly trimmed with a sharp knife—the ham should be rounded and cut close at the flesh end; and even a portion of the bone should be sawed away, so as to round off the piece. Sprinkle over the "fleshy" portion of the ham as much powdered saltpeter as will lie on a nickel—then rub on about a tablespoonful of common molasses or the same quantity of brown sugar. To prevent damage by skippers, the "fleshy" part may be covered with black ground pepper. After acting in accordance with the foregoing instrnctions, the next step is to cover the whole with salt, packed on and rubbed in the hock. Place the pieces in a box, not more than three deep at first, and in from fonr to six weeks, depending on whether the weather is cold or moderate, the meat will be ready to smoke. It is best to smoke with green hickory or sugar tree. Do not "heat" in smoking. Cured thns, the sweetest of "country" hams can be made. The amount of saltpeter and molasses may be slightly varied to suit the size of the meat, and also it must be remembered that small meat will take salt sooner than large; meat does not take salt when frozen. People do not nsually sugar-cure shoulders, but only salt and smoke them. Pork packers make a pickle of saltpeter, etc., in brine. Each packing house has its own pecnliar recipe, but no house can surpass a "country" ham quickly cured on the plan which we have recommended. Hams should be "canvassed" after smoking to protect them from the fly. Some do not apply black pepper until the meat is ready to put up for smoking.

A Good Cross.

A swine breeder writing for the *Ohio Farmer* gives an account of good results with a Berkshire and Poland China cross and makes some deductions therefrom: One year ago I started with two brood sows, one a full blood Berkshire, the other a full blood Magie, (Poland China); nsed the same boar (a full blood Berkshire) to both sows. On the 5th day of April last the Berkshire farrowed eight pigs, and the Magie ten, the Magies coming about 12 hours after the Berkshires. Now for the result. Each litter received the same care, in fact run together after they were three weeks old. The cross bred (Magie-Berkshire) pigs will now weigh, at six and a half months old, at least 230 pounds, while the full blood Berkshires will not average over 180 pounds.

I have no doubt that the cross bred pigs have consumed the more feed, but I certainly believe that they will attain a greater weight than the Berkshires on the same feed, being of a more quiet disposition, and therefore more inclined to take on flesh. While I do not admire the large, coarse breeds of hogs, I want no more of the small, thoroughbred classes.

Farmers want a pig of some capacity, one that has a place to put away lots of swill and grass. Most farmers in this section raise early spring pigs for fattening in the fall, and we think that the pig which at from six to ten months old (other things being equal), will attain the greatest weight, is the best.

My conclusion is that farmers whose object is to raise pork to sell, will do better to take good sized roomy sows and cross with a good snug boar of some of the smaller thoroughbred breeds than to try to raise either the large or small breeds pure, the opinion of breeders who have pairs not akin to sell at fancy prices, to the contrary notwithstanding.

Sheep and Wool.

Notes on Mohair.

We find in the Santa Barbara *Press* some letters from H. M. Farr, of the Alpaca manufacturing company, Holyoke, Mass., to A. C. Gould, assistant secretary of the National wool growers' association. We take therefrom some points of interest. Mr. Farr writes:

I enclose samples of goods made from Angora hair. Owing to the limited snpply of the article we have not heen able to obtain mnch of the pure breed, and this sample is not the best that might be made from pure stock. I have had some correspondence with breeders and growers in California, and am satisfied that this industry will reach very large proportion in the near future.

In another letter, Mr. Farr writes: I am not aware that there are any goods made exclusively of mohair, that is, mohair for both warp and weft; certainly there are no goods so made consumed to any extent in this country. Mohair is principally used as weft in cotton warps, generally fine warps, and woven into plain and figured dress goods, coat linings, etc., which go by the names 'mohair lasters,' "brilliantines," "mohair serges," "Sicilian cord," etc. In fact the variety of goods in which the weft is composed wholly or in part of mohair is very great. In all classes of goods in which luster is an important feature mohair enters to a greater or less extent

Ordinary long luster wool is frequently mixed with mohair to cheapen the stock. Owing to the first cost of good mohair being high, and to the heavy loss in combing (a large percentage going into noils), the cost of yarn made from it is very high, hence its adulteration with wool, China grass, etc. Mohair is also used in connection with silk, hut in this class of goods I am not posted.

The sample of Angora hair you send me is very nice; the quality is extraordinary for so long a staple, but it is not so bright as some of the California article. Hair like this is sure to command a high figure in any market where such materials are sold.

I inclose a small sample of coat-linings of onr manufacture, weft made of California hair, from the clip of Messrs, Landrum & Rogers of Watsonville.

Effect of Feed on Wool.

Many farmers have been annoyed, when selling their wool, to find that the acute and practiced eye of the wool buyer had detected the fact that the sheep had been allowed to run down in condition at some time dnring the growth of the fleece. They are half inclined to think that the buyer is merely trying to depreciate the price. As a matter of fact, there is nothing which renders wool so useless for certain kinds of manufacture as unevenness or break in continuity of the thickness of fiber; and there is no defect more common, and nothing that, year by year, touches the sheep-grower more severely on that tender part of his anatomy—the pocket. However good the wool in all other respects, the keen eye of the bnyer singles out the defective wool, and down goes the price of it. And it is not mere fancy that regulates the prices, for the uneven wool will break at the weak places during the first process of manufacture. Some persons suppose that this unevenness of fleece is hereditary in certain animals, and perhaps unevenness might be made hereditary by generations of ill-nsage and neglect.

But as the wool of an entire flock is found to be uneven one year and not so in another, it shows that management has more to do with it than descent. If sheep are allowed to get into a low condition, are neglected, underfed, or not sheltered properly, the pores of the skin will contract, and the wool that issues will be of very fine fiber. As soon as the animal recovers a vigorous condition the pores again open, and a longer and stronger fiber grows. The wool is thns weaker in one place than in places at each side of it, and breaks at the weak place on the slightest strain. Nothing induces unevenness more easily and surely that want of water. It is a common notion that sheep can do without water or a very little. If supplied with roots daily they will not want much water; but it is well and humane, too, that water should be always within their reach. Not only is it important that the fibers should be even, but the fleece throughout shonld be even as regards length, softness, density and firmness.

Stock Breeders.

Characteristics of a Good Bull.

In an address before the Indiana cattle breeders' association, Mr. Charles Lowder gave the following as characteristics of value in a breeding bull:

Bulls are valnable only as they are capable of producing uniform good stock. The progressive farmer having come to a correct conclusion as to what constitutes excellence in a good steer, and knowing what kind of cows he has to breed from, will naturally inquire, "how shall I know a good bull, and what are the characteristics of a good breeding bull?" As a law of nature, "like tends to produce like." A bull tends to breed like himself. He transmits to his offspring that only which he has himself. If his ancestors, both male and female, were uniform in all that constitutes excellence, and he is individnally good, he may be depended npon for producing good stock. But if part of his ancestors only were good and the others bad, he may transmit to his offspring bad qualities as well as good. He can only transmit what he has himself. What he has is mainly derived from his ancestors, yet he may have gained or lost by good or bad system of breeding, feeding and training. Hence, the

Pedigree of a Bull Should be Good.

This is of first importance. That is, as near as possible all the blood in his veins should be derived from good ancestors. A short pedigree with only five or six sires, if they were all good, may be worth more than a long pedigree descended from Favorite, if the last five or six sires were inferior bulls. A long pedigree is not necessarily a good one, nor a short pedigree absolutely a bad one. The value of a pedigree is estimated not only by its length, but also by its quality. In selecting a bull to breed from, the value of his dam should be taken into consideration as well as that of his sire; her milking qualities should not be overlooked. A bull from a cow that is a good milker is worth more, other things being equal, than one from a poor milker. As hinted above, the value of a bull depends upon his power uniformly to produce good calves. Some bulls of great individual merit lack this power, while other bulls throw calves better than themselves or the cows to which they are bred. This latter is one of the characteristics of a good bull.

Appearance.

It is impossible for any one always to tell how bulls will breed until they are tested; yet the intelligent and careful farmer or herdsman can guess with approximate certainty as to the general character of the get. A good breeding bull must not only be like a bull, but he must look like a bull; that is, he must not look like a cow; he must be masculine in appearance. And this holds good as well in the pure Short Horn as in the scrub, or any other breed. A good bull is as much entitled to the peculiar eye, head, horn, neck, shoulder and chest that characterize him as a male, as a man is entitled to his beard and the peculiar expression of his countenance. A bull with light jaws, narrow face and forehead, slim horns, thin neck and shoulders, is seldom an impressive sire for good. He must be masculine in appearance. This does not imply that he must be coarse; on the contrary he should he fine. Coarseness may be defined as unevenness, while fineness is the result of uniformity. Each part should be such that it fits smoothly and evenly to those adjoining it.

As has been said above, a bull is valuable only as his breeding is valuable. This depends, of course, to some extent, upon the cows on which he is used. Great extremes between sire and dam seldom result well. The intelligent breeder, in making selection of his breeding bull, will have regard to the cows with which he is to be coupled. If they are under size, he will select a bull of good size—one that is not too large. If, on the other hand, the cows are large and inclined to breed too much bone for the amount of flesh, he will select a bull of compact form and good fleshy qualities, but one that is not too much under size. The skillful breeder, before selecting his bull, should determine what he wants, and should be able to give an intelligent reason why he wants him; and, after having made his purchase, should know how to use him. The ability to answer intelligently to what, why and how, is as indispensable to the snccessful breeder of neat cattle as it is to the man in any other profession.

Bees.

Beekeeping in Utah.

J. E. Johnson, of St. George, Utah, gives the *Beekeepers' Magazine* the record of his experience. It contains some points which may be of value in this State. He says:

Some years ago when bees were worth $100 per colony here, I obtained one hive and began my schooling as an apiarian, and to look back now, my course seems to have been very foodish, and I often wonder how I could have been so silly. Although from that one colony I have, in eight years, made over four hundred, had I acted wisely I might just as well have made one thousand. My great anxiety to increase my apiary led me to multiply by division so much that my colonies were nearly all weak; consequently they fell victims to moth, robbers and starvation, and on an average I would annually lose half of the whole number every winter. Time and experience has brought its wisdom, and now I would not think of taking either honey or brood from any but full hives, the result being little or no less.

I am often asked the best preventive to moths, and the answer is simple and short: keep your colonies strong and plenty of stores. If the colony is numerous and strong, it will effectually resist the encroachments of the moth as well as that of the bee robbers, and if the colony has large supplies there is no danger of starving, freezing or being weak in spring when the flowers come and the apiarian desires a strong force of workers.

The key of success in beekeeping is in keeping your colonies strong and giving them plenty of forage flowers to work on. In an experience of eight years I have found nothing superior to mignonette for bees to work on, either for quality or quantity of honey. I believe that one acre of this plant will employ more than one hundred colonies of bees most amply. The Melilot clover and great American bee plant come next as honey plants, and for late forage the *Lynosyrus Graveolens* is superior to anything here, and grows in abundance in most waste places. A beautiful amber honey is made from this plant for nearly two months. The *Algeroba glandulosa* or mezquite is a great bloomer and is heavily worked by the bees for both pollen and honey, but this lasts only about a month, though it frequently blooms twice in the season.

To inexperienced beekeepers I will here drop a hint that may be of some value, and save the lack of many a queen if the suggestions are heeded. In making a new colony, or to supply a queenless hive, *always* be snre to take with the frame of eggs *plenty of young bees*, never less than a pint, a quart is much safer; unless there is plenty of young bees you will never find a queen made—the old bees never perfect queen cells—the young give them fresh eggs every week in the season. Remember that the young bees are the wax workers, while the old bring supplies.

Honey, Honeycomb and Wax.

It is a mystery to many, says the *Rural New Yorker*, why honeycomb is worth from two dollars to four dollars per pound; and yet it is true, when we take into account that it is made from honey, of which it requires 25 pounds for a swarm of bees to make a pound and a quarter of nice honeycomb.

The Cincinnati *Gazette* explains the matter as follows: The bee fills itself with honey, and when combs are to be made the larger part of the swarm will form or cluster themselves into a festoon or bunch in the hive, and by so doing they get up a proper temperature of heat, which causes the honey already in the bees to secrete into wax, and pass through the little

Continued on Page 402.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is in Davis street, north-east corner of California.

Grange Directory.—A full list of Subordinate Granges, Masters and Secretaries, of California and Nevada, is published as often as once a quarter in this department. See issue of Sept. 23d for latest insertion

P. of H.—Subscribers who pay fully one year ($4) in advance for the Pacific Rural Press can receive the California Patron *free*, or other premiums. See our premium list in another column.

International Co-operation.

The following is the portion of W. M. Jones' address at the late meeting of the National Grange, which we were forced to omit last week:

At the last session of this Grange much interest was expressed in the action which had been taken by the co-operative societies of Great Britain to inaugurate a system of exchange between them and the agricultural producers in this country, and in their friendly messages to our Order, through their special deputation, and subsequent correspondence with our Executive Committee, which I was directed, by a resolution of this body, to continue, as I did, until a point was reached when, in my judgment, with the approval of the Executive Committee, it became expedient to send a special commissioner to confer with the authorities in those societies upon this subject, and to represent our ideas and interest in this connection. Brother J. W. A. Wright was appointed to this office, and it affords me sincere pleasure to bear testimony to the ability, dignity and grace with which he discharged its important duties. Complications of a very serious character had arisen through the misrepresentations of unfriendly parties, the character and extent of which were unknown to us until ascertained by our commissioner, after his arrival in England. These matters were fully discussed in the co-operative congress which met at Glasgow in April last, the courtesy of opening and closing the discussion having been extended to our commissioner. The result was a reassurance of that body of the earnestness and integrity of our Order in these negotiations, and their reference to Mr. Neale and our commissioner, by whom important modifications and changes of the original articles were agreed upon, submitted to the Executive Committee of the company on the other side, and assented to by that committee. Copies of the original articles, the modifications and changes and the report of the Executive Committee on the other side assenting thereto, will be placed in the hands of the Secretary for your use. These papers were submitted to your Executive Committee at their session in July last, when a resolution was passed requesting me to submit to them, at their next session, my views as to what steps should be taken to insure the practical benefits of a business connection with the co-operative societies of Great Britain.

In compliance with this resolution, I again brought before the committee, at their late session in Philadelphia, the proposed articles of association of an Anglo-American Co-operative Association, with a plan of organizing the American section thereof, published in my circular letter of July 14th, copies of which are also in the hands of the Secretary for your use. The Executive Committee will report to you what action they have taken in these matters.

I commend this whole subject to your careful consideration, as one of supreme importance to our Order, trusting that by your wise action the system of co-operation recommended at your last session may be perfected, and that the articles provided for its extension to international commerce, through an Anglo-American Association, may be found acceptable, and may be recommend to our members. Every safeguard which the experience of British co-operators, and the most careful consideration on our side could devise, is thrown around the whole scheme.

The plan of organizing the American section of this Association which I submit, may be improved by your joint wisdom and united intelligence of the extended field for which it is designed. By some it may be regarded as yielding much of the authority and fostering care, which our Constitution wisely provides the National Grange shall exercise, directly, and through Subordinate Granges, over the business interests of our Order, in only becoming an "advisory body."

On the other hand it may be objected that the National Grange is not elected by those who may be stockholders in these enterprises alone, but by the representatives of all the members, and therefore should not exercise supervision over their interests. Of these opposite opinions the last would lead to consequences, I think, fatal to our Order and our cherished hopes. The purposes of our Order are so blended, each so in harmony with the others, and so dependent upon one another, the separation of one, and especially that one which is the life blood of the whole, would paralyze the system. It is not to the share capital in these enterprises that our members will look for greatest benefits, but in the facilities they will afford for the sale of our products and the purchase of our supplies. The member that holds but a single share will be entitled to the same benefits, and have an equal voice with the member holding the maximum. Some of our members may not be able to take a single share, yet such may contribute to the profits, by their custom, more than others holding the maximum of shares. Shall such members have no representation in a purely Patrons' enterprise, to the support of which they contribute, perhaps, the largest share?

A co-operative congress, elected by stockholders, could not be more responsible, or represent the interest of their constituents more intelligently or faithfully, than a body chosen from the Order, as is this National Grange.

That we have opposition to our plans, powerful and energetic, we know, but the source from which it comes should nerve us to put forth whatever effort may be necessary to secure to the toiling farmer the rightful profits of his industry, as a prerequisite to the proper development of what are called "higher objects of our Order." Do we not see an education power of the highest kind underlying this co-operative movement for the great masses of our people? The further we have gone the fairer and wider the prospect before us. Do we mean to go on? have we faith enough in the principles of our association to follow them wherever they may tend? I trust we have, and that we shall take our forward steps in the reorganization of labor, and therefore of society, carefully and steadily, but resolutely, and with a perfect indifference to the abuse and opposition which we must of course look for, until manhood shall cease to pay tribute to money; conscious as our limited education in these principles has made us, in some dim way, of that highest mystery of our human life, which can only be adequately described in words with which I hope all of us are familiar, "that we are members one of another, so that if one member suffers all suffer, and if one member rejoices all rejoice."

The Work of the National Grange.

The Tenth Annual Session of the National Grange, which closed its labors on the 29th of November, was one, the work of which was not altogether satisfactory to its best friends. It is true, every member present appeared to be actuated for the best interest of the Order; nevertheless, there are such diversified interests in our broad country that there is no wonder that diversity of opinion to some extent prevailed in regard to the equity and expediency of some of the measures introduced. This diversity of opinion and interest was most fully developed in the undertaking to establish a general business system, fully adapted to the wants of every section of the whole country. Many of the members were apparently sanguine in the opinion that such a system could be devised, but the result of our deliberations does not justify the belief that the plans adopted are all that is to be desired.

For myself, I was of the opinion, and so expressed it, that the Patrons of the United States cared very little for the "recommendations" of the National Grange, but desired a pure, simple, practical business plan of co-operation, that any plan which could not be made thoroughly practical in its operations although highly recommended by the National Grange, would have a very indifferent reception by those for whom it was designed.

There are some parts of the reports of the Committee on Co-operation, as adopted, which are good, and may be utilized in the future, but the "international" part of the "plan," as adopted, appears to me to be anything but a credit to the body that passed it, and will be used, if at all, by others than those for whose benefit it was designed. Our efforts were directed to defeat it, for the reason that to pass and recommend an impractical scheme could result in nothing less than loss and disappointment to those who should in good faith undertake to carry out its provisions.

The constitutional amendments are good as far as they go, but the two principal ones recommended by our late State Grange were defeated, after a hard struggle. There were four amendments adopted, which were ordered printed immediately, that they might be submitted to the several State Granges for ratification. The amendments are in the following words, viz.:

I. To amend article I, section 2, by inserting after the word "hallot," the following words: "Any fourth degree member, in good standing, shall be eligible to office or to receive the degrees in the County, District or National Grange, within whose jurisdiction such member may reside, but shall not be entitled to vote."

II. To amend article I, section 4, so as to read as follows: "There shall be an Executive Committee of the National Grange, consisting of three members, whose term of office shall be two years. The Master of the National Grange shall be, *ex officio*, a member of the Executive Committee, but shall not be entitled to vote except in case of a tie."

III. To amend article II, section 3, by striking out the word "annually," and inserting in place thereof the word "biennially," and by striking out the words "from year to year" in said section; by striking out the word "annual" in article III and inserting the word "biennial" in place thereof; and by striking out the word "annual" in article XIII and inserting the word "biennial" in place thereof. This amendment shall take effect after the annual session of the National Grange to be held in the year 1877.

VI. To amend the Preamble under the head of "Organization, State Grange," section I, by inserting after the word "Matron," in the third line, the words "provided that when the Master of a Subordinate Grange cannot attend the meeting of the State Grange, the Subordinate Grange may elect a substitute from those who are duly qualified, and—"

The ruling in the Parliamentary Guide requiring applicants to join the Grange nearest their residence was stricken out.

One of the most important matters acted upon was the passage of the resolutions requesting the Congress of the United States to provide for the establishment of an Agricultural Bureau, to be located in Washington City, under the direction of a cabinet officer.

After the plan on co-operation and its supplement was adopted, a resolution was passed, *recommending* the establishment of a "uniform system of agencies for the several States," as a kind of temporary arrangement until the co-operative plan gets into successful operation.

There were many other matters of interest acted upon by the National Grange. The resolutions taken from our State Grange in favor of allowing each State Grange to fix the time of the election and installation of the officers of Subordinate Granges was defeated without any valid reason. The Committee on Constitution and By-Laws reported adversely to its adoption. When requested to give their reasons for reporting against its passage, stated that the only reason was that at one time the authority did rest with the State Granges, but that the Constitution had since been changed, vesting the authority with the National Grange, consequently the Committee was opposed to re-enacting an amendment which had been annuled by the several State Granges in the ratification of the Constitution as it now stands. The resolution which was adopted by our State Grange in favor of abolishing all the degrees above the fourth, elicited a great deal of discussion pro and con, and was finally defeated, and the degrees are consequently retained as a bone of contention, without being of any practical use or benefit whatever.

Although there was an evident disposition upon the part of most of the members to carry out the spirit of their instructions, derived, directly or indirectly, from their Subordinate Granges, nevertheless there were a few who were not disposed to yield to the demand of the "rabble" as those who objected to the higher degrees were termed. Especially was this the case with the brother from Massachusetts, who stigmatized the grumblers as a "pack of hungry wolves;" but there was a general disposition manifested to overlook the slurring remarks on the ground of his being a new member with his first constituency, and which would most probably be his last.

The conviction was freely expressed by many of the most practical members of the Grange that it should be a purely representative body selected for practical work. That it was in its present form more a social than a business body, which was too expensive a luxury to be long maintained by the hard-fisted farmers who support it by the dues paid in to their Subordinate Granges. So far as we have been able to discern the Grange movement, everywhere it has taken a practical, utilitarian turn. In fact, the life of the Order depends upon the practical work of the future. It cannot be otherwise, for life is a reality, and utility is the basis of prosperity. Prosperity signifies relief from oppression, and enables men and women to cultivate the higher qualities of moral and intellectual worth. The poor man, oppressed with exorbitant taxation and burdened with debt, has no time for social enjoyment or intellectual advancement. In order to succeed, we have got to make the "Grange movement" practical, in order to relieve the oppressed; then we shall have more time for social enjoyment.—*J. V. Webster in California Patron.*

From the Granges.

Alhambra Grange.

Editors Press:—Alhambra Grange, on Saturday, December 2d, had her usual harvest feast, as well as her usual good humor and cheer. All is well with us, and everything passed off as merry as a marriage feast; even the annual election of officers came up in the happiest style of good Grangerism. Our little ones were not forgotten, their welfare being the principal feature under head of Good of the Order. We hope soon to announce a full organization with officers, regalia, ritual work and Constitution, all complete as Young Grangers of Alhambra, No. 1. Our officers are all to be installed the first meeting in January.

Mrs. Maria B. Lander, Secretary.

Bennet Valley Grange.

G. N. Whitaker writes: "Our Grange is steadily increasing in numbers and in work for the good of the Order."

A. W.—Frequent applications are being made for the A. W., and in reply say that the W. will not be given out until the installation of officers in January, when it is the intention of our W. M. to send it direct to the Masters of all Granges that are not in arrears for more than one quarter's dues, immediately upon his being notified of the installation.

Election of Officers.

Bennet Valley Grange, No. 16, Santa Rosa, Cal. Election, Dec. 2d: G. N. Whitaker, M.; C. Lyman, O.; A. Burnham, L.; N. Carr, S.; D. E. Miller, A. S.; I. De Turk, C.; B. Lacque, T.; R. Allen, Seo'y; A. R. Lacque, G. K.; Mrs. Lyman, Ceres; Miss M. Carr, Flora; Mrs. M. Allen, Pomona; Miss Bell Burnham, L. A. S.; Trustee, S. C. Story for three years.

Calaveras Grange, No. 182, Jenny Lind, Calaveras county.—Election, Dec. 2d, 1876: C. Morril, M.; Christian Meyers, O.; M. F. Gregory, L.; J. T. Kirk, S.; C. Gall, A. S.; Joseph Rodgers, C.; J. W. Kirk, T.; R. Thompson, Seo'y; B. F. Thompson, G K.; Mrs. E. J. Willits, Ceres; Mrs. Morril, Pomona; Mrs. E. A. Kirk, Flora; Mrs. Gall, L. A. S.

Elmira Grange, No. 15, Elmira, Solano Co., Cal.—Election, December 2d: A. T. Lane, M.; G. W. Frazer, L.; T. G. Frost, A. S.; Mrs. Kitty McCrory, T.; W. H. Black, O.; M. D. Cooper, S.; G. W. Brake, C.; R. W. Frost, Sec'y; J. A. Clark, G. K; Mrs. E. J. Lane, Ceres; Mrs. M. D. Cooper, Pomona; Miss Ida Rogers, Flora; Miss Mary E. Lane, L. A. S.

Jackson Valley Grange, No. 234, Amador county.—Election, Dec. 4th: W. H. Prouty, M.; James Violet, O; C. S. Black, L.; R. R. James, S.; F. A. McMurry, A. S.; A. K. Crawford, C.; S. Kidd, T.; J. C. Hamrick, Seo'y; L. Tubbs, G. K; Mrs. F. A. McMurry, Ceres; Mrs. R. R. James, Pomona; Mrs. W. H. Prouty, Flora; Mrs. C. S. Black, L. A. S.; Trustee, W. C. Thompson.

La Honda Grange, San Mateo county.—Chas. B. Sears, M; Justin L. Edwards, O.; Emma L. John, L.; Henry Steinberg, S.; Wm. Munro, A. S.; Jas. Monotti, C.; John Burgess, T.; Henry Wilbur, Seo'y; Oscar J. John, G. K.; Rosalie Evans, Ceres; Miss Ella Weeks, Pomona; Mrs. Steinberg, Flora; Mrs. Delia Wilbur, L. A. S.

Newcastle Grange, No. 241, Placer Co.—Election, Dec. 9th: Mr. Brainard, M.; J. F. Taher, O.; Sister M. J. Nixson, L.; Mr. Elliot, S.; J. Woods, A. S.; W. J. Wilson, C.; G. W. Threlkill, T.; Sister Maggie Greeley, Seo'y; G. Nixson, G. K.; Sister J. M. Mitchel, Ceres; Sister G. W. Threlkill, Pomona; Sister D. A. Rice, Flora; Sister Mary A. Greeley, L. A. S.

Paradise Grange, No. 5, Paradise, Nev.—Election, Dec. 2d: C. A. Nichols, M.; W. A. Sperry, O.; J. B. Case, L.; D. A. Bradshaw, S.; W. H. Holt, A. S.; Mrs. H. M. Burge, C.; R. Burge, T.; Mrs. S. A. Nichols, Seo'y; C. Choate, G. K.; Mrs. E. Sperry, Ceres; Mrs. C. Choate, Pomona; Mrs. E. J. Riley, Flora; Miss F. A. Pierce, L. A. S.

Roseville Grange, No. 161, Placer county. Election, Dec. 2d, 1876: John McClung, M.; John R. Dyer, O.; George R. Grant, L.; O. P. Gould, S.; W. H. Murry, A. S.; L. F. Fredericks, C.; Robert Ward, T.; Nicholas Mertes, Seo'y; E. Davis, G. K.; Mrs. J. Dyer, Ceres; Mrs. S. Davis, Pomona; Mrs. M. Neher, Flora; Miss H. Daly, L. A. S.

Sacramento Grange, No. 12, Sacramento.—Election, December 7th: Geo. Rich, M.; Daniel Flint, O.; W. S. Manlove, L; L. M. Lincoln, S.; C. A. Hull, Seo'y; James Rutter, A. S.; W. M. Haynie, C.; Moses Sprague, T.; Jackson Carter, G. K.; M. L. Rich, Ceres; D. D. Hull, Pomona; M. Boggs, Flora; F. S. Manlove, L. A. S.

Salinas Grange, No. 24, Salinas City. Election, Dec. 2d: William Quentel, M.; G. P. Kellogg, O.; George Abbott, L.; H. Breese, S.; N. Corey, A. S.; H. Whisman, C.; William Ramsay, T.; Clara Westlake, Seo'y; Mr. Monroe, G. K.; Mrs. Breese, Ceres; Miss M. Westlake, Pomona; Mrs. N. Corey, Flora; Mrs. P. Matthews, L. A. S.; Joseph Vannoy, Trustee.

San Jose Grange, Santa Clara county. Election, Dec. 2d: Cyrus Jones, M.; E. A. Braly, O.; Mrs. E. Bicknell, L.; Jacob Powell, S.; William Winslow, A. S.; Mrs. H. C. Paine, C.; W. L. Manly, T; H. G. Keesling, Seo'y; N. J. Haines, G. K.; Mrs. H. S. McClay, Ceres; Mrs. C. Ladd, Pomona; Mrs. M. Hale, Flora; Miss Hester Farnsworth, L. A. S.

Stockton Grange, No. 70, San Joaquin Co. Election, Dec. 2d: C. Grattan, M.; E. P. Heath, O.; Mrs. W. West. L.; W. Knhl, S.; S. R. Aiken, A. S.; J. L. Beecher, G. K.; H. Wallace, C.; T. J. Lander, T.; T. J. Stephens, Seo'y; Sister Knhl, Ceres; Sister Boody, Pomona; Sister Wolf, Flora; Sister Overhiser, L. A. S.

West San Joaquin Grange, No. 3, Ellis, San Joaquin Co.—Election, Dec. 2d: J. C. Allen, M.; J. Carroll, O.; A. P. Stocking, L.; Wm. Carroll, S.; J. McNeil, A. S.; J. M. Kerlinger, C.; W. G. McKean, T.; H. B. Needham, Seo'y; A. B. Renfro, G. K; Miss E. I. Bonsall, Ceres; Miss M. J. Carroll, Flora; Miss M. A. Saddlemore, Pomona; Lenna Renfro, L. A. S.; J. Quackenbush, Trustee.

State Lecturer.—Several letters have been received, asking how much it will cost to have the Lecturer of the State Grange visit their Grange. In reply to this inquiry, I will say that the services of the Lecturer will be entirely gratuitous to the Grange he visits, and they will not be called upon for any money to help defray his expenses.

The Lecturer will hold open meetings at Haywards, on Wednesday, January 3d, 1877; Livermore, Thursday, January 4th, 1877; Stockton, January 6th, 1877. Other appointments will be announced in next week's Rural Press.

Amos Adams, Seo'y.

Agricultural Notes.

California.

BUTTE.

Manzanita in Bloom.—*Record*, Dec. 9: Johnny Garret, the Newville stage driver, tells us that the manzanita bushes are in bloom all along the Coast range. This is something very unusual; that veritable being, the "oldest inhabitant," tells us he never saw such a thing before.

LOS ANGELES.

Imported Stock.—*Herald*, Dec. 9: An event of considerable interest to our farming and stock raising community took place the other day in the arrival in this city, per S. P. R. R., of a car load of thoroughbred cattle and hogs; the importation of Messrs. Barretto & Co., of New York city. The cattle are of the far-famed Jersey breed, selected with great care and at large expense from the finest herds of the Eastern States, and are all the get of first prize animals, some having themselves, though young, taken first prizes in the New York and Massachusetts State fairs. The hogs comprise the Berkshire, Essex, Suffolk, and small white Yorkshire breeds. These pigs are all the get of first prize animals in the English fairs, and their dams and sires have come direct from the Queen's stock. The Messrs. Barretto have recently purchased a tract of land on the San Gabriel river, ten miles east of this city, where they propose establishing a stock ranch of thoroughbred cattle and hogs, in connection with a butter dairy, which will rival the famous stock farms of the Eastern States.

Bananas and Pineapples.—*Outlook*, Dec. 6: Dr. Beach and Mr. James Huntington, of Orange, have several thousand of the Sandwich island dwarf banana, also five or six thousand pineapple plants which they planted last June, and which are now in a most flourishing condition, and give promise of an abundant reward to the gentlemen who are the pioneers in this culture.

MARIN.

Tomales.—Petaluma *Argus*, Dec. 7: W. Rowland says the agricultural outlook and the prospects of the dairymen have not been so encouraging in his locality at this date in December for many years as they are at present. The potato rot, Mr. Rowland informs us, is a matter of some concern in Tomales, but so far its developments are not near as serious as they are in the vicinity of Petaluma.

MENDOCINO.

Rye.—*Democrat*, Dec. 2; There's not much rye grown around Ukiah, but B. Henderson is in the habit of putting some in the ground every year and finds it profitable. He tells us it grows well and yields well, both in grain and straw, the latter being preferable to wheat straw. He will put more than his usual quantity of rye in this season if he can get the seed. It makes healthy bread.

MERCED.

Water.—*Valley Argus*, Dec. 9: Fair weather has become monotonous to farmers, many of whom are idle for want of rain to wet the ground and put it in good condition for plowing. We would suggest to farmers that they need never be idle for want of rain if they will unite and aid in the completion of the Farmers' canal, a project that will, when completed, furnish a supply of water for irrigating most of the arable land lying between the Merced river and Mariposa creek. Most that is now wanted to complete the canal is labor and subsistence for men and beasts.

MODOC.

Agriculture of the County.—Cor. Colusa *Sun*, Dec. 9: The Early Rose, Goodrich and Peerless potatoes are the leading varieties in this part of the county. The Early Vermont has lately been introduced, and promises well. The crop ranges from 150 to 300 bushels per acre. All good gardeners have the highest figures, and 350 has been reported. Any of our land will grow good potatoes. The quality is the best in the world. They sell from a cent to one and a half cents, according to locality. A good deal of our wheat appears to be the Chile or Proper variety, and is sown both as spring and winter wheat. The average this season is fully 20 bushels per acre. Some fields went as high as 30 bushels per acre. Barley went all the way from 20 to 40 bushels. The price of wheat is from $1.40 to $1.75, owing to locality. Flour from $2.50 to $3.00. Barley same as wheat. The quality of our grain is certainly equal to that grown below. From four pounds of Government "early spring wheat" which you sent me last spring, I realized 80 pounds, which is even superior to the original—a rare thing. There was considerable waste in gathering. I sowed the seed April 10th. Oats and rye thrive to perfection. Flax, I think, would do well, as the wild species abounds. Farmers who have no hay land, and little water, are introducing the "black" rye for hay with success. It is sown thickly. Alfalfa turns off two good crops a year. Some few have made three cuttings. This crop requires irrigation. Owing to the spring frosts, the seed cannot be sown before May first. When sown too early, frost is liable to kill it before out of second leaf. Our wet and dry seasons are the same as yours, only we get greater rainfall, consequently alfalfa comes in too late to get a good set from rains. In addition to our wild hay lands being turned into timothy, which is done by sowing the seed without use of plow or harrow, fine crops of this grass are being grown on prepared land by irrigation. Roots grow to perfection. From my own experience a fair estimate gives parsnips a yield of 1,800 bushels per acre, and carrots about 1,400. Beets are very prolific, as well as rutabagas and turnips. Those vegetables are sweet and juicy, and retain their highest flavor. The Filderkraut and Wakefield cabbage are well adapted to this climate. Most other varieties fall short of success. Onions are a good crop. The seed is sown very early in the spring. The early varieties thrive best. Having spoken of the hardy variety of products, which are never-failing in our valleys, I will now speak of the more tender products. Along the low moist lands frost is more or less prevalent during summer. As we rise above these wet bottoms the danger of frost becomes less. There is abundance of good garden land free from frost five months together, year after year. The frost lines are regular, only rising and falling slightly, according to the season. Tomatoes, squashes, cucumbers and the like, are successfully grown above the frost line. This is not a good corn-growing section, although some of the early kinds do very well. Probably no less than 5,000 beef cattle have been driven to the lower markets from this county this fall. Cheese is made only in limited quantities, but when the railroad reaches us, and the price of freight is materially reduced, we expect to add new luster to the name of California cheese. Owing to the many wild roots, of both high and low lands, hogs are easily raised. Two winters only have been known in which hogs have not gone through safely entirely upon their own rooting. Now that grain is being more extensively grown, hogs will receive more attention. Our first sale of hogs for the lower market was made this fall. A buyer came up and drove down quite a drove. One of our stores began buying poultry and eggs this fall for shipping below. We can produce almost anything, and plenty of it, and cheaply, too. All we want is a market, to stimulate people into developing our resources.

MONTEREY.

Winter.—*Democrat*, Dec. 9: A ride upon the farming lands at this particular time has by no means a cheering effect. All nature has a somber aspect, grass upon which stock has been pasturing all summer being scant, stubble being nearly consumed by the animals fed upon it, or by fire, in preparation for the plow, and a general air of dullness and inactivity prevails over scenes where a couple of months ago the operations of the harvest time displayed so much of life and bustle. We are just now in the dead of a California winter, caused not by cold but by the suspension of rain. Let rains come, however, so as to penetrate the earth to the depth of a few inches, and the change will be like magic. In a couple of weeks Nature would put on the garb of spring, plows innumerable would be running in every direction, and everywhere would be seen going on active work with the confidence of satisfactory results therefrom. The rains we had in October amounted to one inch and four-hundreths, being sufficient to cause the germination of grass and grain seeds, but, being followed by dry weather, continuing up to date, (Dec. 6th) the vegetation is now hardly appreciable. There was not moisture enough to start the plows, and everything of that sort is at a stand-still in our valley. Farmers are growing restless at their prolonged inaction, though as yet there is no occasion to apprehend anything like drouth, the experience being that copious rains may not be expected before about Christmas.

NAPA.

Frosts.—*Register*, Dec. 9: The frost has been severe in some places in Napa in the mornings, so that the water in several pumps has been frozen. This morning the water tank on the pile driver was nicely ornamented with icicles.

PLACER.

Roseville.—Cor. Placer *Argus*, Dec. 9: Mr. Branstetter has lately purchased eight lots, and it is rumored that he intends to build a large store-house for the storage of hay and grain; and also intends to deal in lumber more extensively than before. The harrow manufactory of Messrs. Brewster & Co. is also adding much to the general prosperity of our town. I was informed by one of the firm that they had made and sold so far this season over $10,000 worth of harrows. They employ now from nine to twelve men, and have a shop 70 feet long, with four forges. It is their intention another season to employ four times as many men, as they can fill but a small portion of their orders with their present facilities. The firm consists of W. T. Brewster, A. D. Nehor and J. D. Pratt —all old residents of our county. Everything pertaining to farming is more flattering this season than I have ever before known. All the summer fallowed land was sowed at the first rain, and the grain is up and looking splendidly. The acreage of summer fallow, I am told, is in excess of what it ever was before in this vicinity, and, not satisfied with that, the plows have been running steadily for the past month, and a very large amount of winter plowing and sowing has been done. We hope at no distant day to see about 6,000 acres of good grain land put into the market in our neighborhood in such a way that small farmers may get hold of it, and then will Roseville's prosperity commence.

Lincoln and Sheridan.—The farmers in the vicinity of Lincoln have sown a large breadth of grain, and the prospect for a good crop is satisfactory. At Sheridan, several new buildings have been erected. A large warehouse has been built and filled with grain.

SACRAMENTO.

More Fine Thoroughbreds.—*Record-Union*, Dec. 5: Ira Platner, of Council Bluffs, has brought out to California, to spend the winter, a number of fine horses, which are now quartered at Agricultural Park. The list includes the stallion Ozark, one of the best four-mile horses in the country, and of as good blood as any. He was the winner of the four-mile dash at Washington, a year ago this last fall, over several competitors. The purse on that occasion was apportioned in a novel manner—so much to the horse that was first at the half-mile, so much for the one that was ahead at the end of the first mile, so much for the one leading at the close of the second mile, and so much for the horse that was in the lead at the end of the fourth mile. Ozark won all the money, keeping the lead from the start and finally distancing his competitors. Some months since he ran away while on a race-track East, his rider being too light to control him, and injured one of his legs quite badly; in fact, he has scarcely recovered from it yet, but it is thought a winter's rest in this climate will bring him out all right. Mr. Platner also has here the horse Council Bluffs, who has shown himself a fast one, and also the brood mare Lottie Moon, in foal to Ozark. Mr. Platner is accompanied by his wife, and purposes remaining with us this winter, and it is not beyond the possibilities that he may determine to make California his permanent residence. He intends to give his horses a rest until spring, and then will be apt to let them try conclusions with some of the other thoroughbreds in the State at the first favorable opportunity.

SANTA BARBARA.

Grain in Santa Maria.—Guadalupe *Telegraph*, Dec. 2: The following is the amount of grain threshed in the Santa Maria valley this year so far as we have been able to find out: Wheat, 110,771 centals; barley, 168,334 centals. Total amount, 279,105 centals. A very large acreage of grain has also been cut to hay, some destroyed by fires, and a considerable quantity fed to stock standing. The bean crop of the valley has been large and good, while the potato harvest, now fairly under way, gives every assurance of an immense yield. Of pumpkins and squashes there is any amount, of fine quality and gigantic size. There has also been a considerable quantity of buckwheat raised in this vicinity, and it has turned out so well that we advise our farmers to give more of their attention to its cultivation. It is a cereal that seems well adapted to our soil and climate.

Potatoes.—Santa Barbara *Press*, Dec. 9: Mr. Friel, from Lompoc, came to our office yesterday, bearing in his hand a large valise full of potatoes. We took one of the potatoes, of the Long Red variety, and found by measurement that its longitudinal circumference was 25⅛ inches (at least three inches of the potato was cut off before it came to us) and latitudinally it measured 12 inches about it. Placed on the scales it balanced the beam at three pounds and 15 ounces. Another, of the Peschblow variety, measured 19⅛, and 13 inches about it, and weighed three pounds seven and a half ounces. These potatoes were hurriedly picked from a pile in the field, and were not taken so much for their size as for their beauty of growth. Mr. J. R. Thurmond, from the Carpinteria, brought in a sweet potato this morning that weighed seven and a half pounds. It is large for this particular and choice variety, though less than half the weight of other kinds raised in the county. The grower says it will turn out 200 sacks to the acre.

SAN DIEGO.

National Ranch.—*Union*, Dec. 7: We could not help looking back a few years, last evening, and contrasting the aspect of National Ranch in 1870 with that of to-day. Where, then, nothing could be seen but cactus-covered soil, to-day there are fruitful farms and orchards surpassing in the extent and variety of their productions those of many of the most favored localities in long-settled sections of the country. Truly the progress that has been made in the last six or seven years is marvellous. At the Grange meeting was a table upon which was tastefully arranged some of the fruits of the soil, grown on the National Ranch by members of the Grange. Such a magnificent display of fruit, gotten up as an afterthought at a few minutes' notice, (as it was) would have attracted attention at any State fair in the Union. It comprised apples—without exaggeration the finest we ever saw—pears, quinces, oranges, lemons, limes, olives, grapes, almonds, guavas, and last but by no means least, a basket of Irish potatoes that could not be beaten in the State. The oranges from Mr. Owens' place, and lemons and limes from Mr. Swan's and Mrs. Brewster's places in Paradise valley were worthy of exhibition at the Centennial. Such quinces, in size and richness of flavor, could only be seen in this favored land; and the olives, from Mr. Warren Kimball's place, were cut from three-year-old trees.

SAN JOAQUIN.

Wheat.—*Independent*, Dec. 9: Considerable apprehension is beginning to be felt among our best posted wheat men for fear the supply will run short before the next season comes, an apprehension increased by the continued dry weather. Fields of summer fallowed wheat already sprouted are suffering for rain, and it is feared that large areas of land will require to be re-sown, should rain hold off a week longer. Those who are best informed on the wheat market consider that there is not enough wheat held back among the farmers of the county to resow summer fallowed land should a drouth set in. So much wheat has already been sold and shipped from here this year that our warehouses do not now contain as much as they did last March, and the supply unsold would not keep the city mills in operation until April. Under all these circumstances, with the bright prospect of a continued advance in the market, it behooves the farmer to hold on to his wheat for future developments.

SONOMA.

The Potato Rot.—Petaluma *Argus*, Dec. 1 A. P. Whitney, and many others with whom we have conversed on the subject, are of the opinion that there is no real seated disease among the potatoes produced here, or any conditions of the soil that cause the rot. They believe its prevalence this year and last is due to the early heavy rains that visited the potato-producing sections before the potatoes had ripened. They say there are no signs of the rot among potatoes that were dug before the rains, or among those still in the ground in dry uplands, which were entirely ripe when the rains commenced. Different theories, however, engage the attention of those who have studied the subject, and it is to be hoped that among them all one will at last be evolved which will explain beyond cavil the cause of the rot, and be the means of suggesting a course by which it may be checked. Certain it is that the rot is a very serious thing this year.

Green Valley.—We learn from M. Gillam, of Green valley, that crops are coming on splendidly in that valley. Mr. Gillam says it is many years since grass and grain have been so well advanced on the 1st of December as they now are. The farmers are busy putting in their crops and already a very large area has been planted, more in fact than is sometimes planted in a whole season. Green valley is a noted fruit-producing region, and this year apples are so abundant and the price so low that many orchardists are fattening their hogs upon them. The potato and corn crops this year were not up to the average in quantity or quality.

The Agricultural Outlook.— *Democrat*, Dec. 9: The outlook for the coming season is most favorable in this county. We learn from various portions of the county that more grain has been planted than ever before known at this time of the year. In some localities the area already planted exceeds the average for a whole year, and yet the plows are busy. A good portion of that planted is already up and growing off very finely. The rains so far have been just such as our farmers desired, the rainfall generally in the county being from five to six inches. Whilst our farmers here have thus been enabled to sow a large area of grain so early in the season, we hope they will not forget the importance of diversifying their crops to some extent, and will prepare to sow some alfalfa, plant corn and potatoes, and to raise such vegetables as they need for home consumption.

Russian River Potatoes.— *Flag*, Dec. 8: George Dow, whose ranch is about three miles southwest of Healdsburg, last Tuesday called at the *Flag* office with a large basket full of four Peerless potatoes. Their weight, respectively, on the scales of the Grange store, was 2⅞, 3¼, 5¼ and 5½ pounds. Total weight of four potatoes, 17 pounds, less one ounce.

Bennett Valley.—Cor. *Argus*, Dec. 5: The farmers are all busy as gophers. Grain is going in at the rate of 2:40 and coming up nicely. Everybody is beginning to want rain. Cherry and almond trees are blooming. Everybody and all nature seem to be animated to vigorous action, but grass is at a standstill.

TULARE.

Stock.—*Delta*, Dec. 2: The settlers of Mountain View have organized for the purpose of keeping outsiders' stock off their home range. It seems that they have suffered greatly from time to time from the encroachments of stock owners who have no range of their own, at certain seasons, and some of whom are not over-scrupulous about the branding and driving off of stock belonging to the neighborhood. The range for stock is getting very barren in this vicinity. The oak trees furnish sustenance and even fatness to large herds of swine, and we have noticed of late that neat stock, and even horses, take to the mast with a considerable degree of favor. We are told that in pastures where oak mast is plentiful some cows, at this season, abandon the dry grass and live upon it almost entirely.

YOLO.

Getting Dry.—*Democrat*, Dec. 8: Farmers are getting to be anxious for more rain. Thus far we have had 3.74, or in round numbers three and three-fourths inches. Nothing is suffering, but in some localities the surface is getting too hard for plowing.

Cacheville.—Cor. *Mail*, Dec. 7: Our farmers have been very active in sowing grain. The early rains afforded a splendid opportunity for cultivation; but the long dry spell which has followed gives rise to fears of a dry season. There is as yet no real cause of fear in that direction, however, as there is still time for an abundance of rain. Let us live in hope, though we die in despair.

Idaho.

Editors Press:—We have the most delightful weather here. About the 15th of November we had a frost just sufficient to kill the tomato and other tender vines, and since that time we have had heavier rains and mild weather. The young grass is a good length for stock to get plenty, and the consequence is very fat beef.

A. B. R.

Boise City.



Mamma's Present.

Two busy, dear little darlings,
Whispering, chattering so;
Silent when mamma comes near them—
Planning some mischief, I know.
Two pretty heads close together,
Half-lifted eyes, how they shine!
Lit with some wonderful secret—
Secret that soon will be mine.

"Mamma," I smile as I listen;
"Mamma," these little ones say,
"If we should give you a present,
Playing it's Christmas to-day;
Wouldn't you keep it forever?
Keep it until you shall die?
Promise us really and truly—
It's just to remember us by."

"Dollies or marbles?" I question.
"Mamma must wait, she will see."
And when I promise them "truly,"
Quickly they vanish in glee.
Soon with young hearts all a-flutter,
Springing they come to my side.
"Under the lounge in the corner,"
Saying, "Your present we'll hide."

Two little heads, close together,
Rest on the pillow so white;
Four rosy lips softly kiss me,
Two voices murmur "good night."
Under the lounge in the corner
Lo! I am peering, half blind,
Mother-tears dimming my vision;
What in the world shall I find!

Only a bit of white paper!
Ah! as I open each fold,
Here in my hand I am holding
Brown curls and tresses of gold!
Curls that my little boy severed,
Tresses my daughter hath given—
Never the gold can be brighter
Waiting to crown her in heaven.

Some day perhaps it may happen—
Mothers are often bereft—
Some day this sweet childish token
Only for me may be left;
Some day perchance they will wander—
Earth is so weary and wide.
How I shall cherish this treasure
When I have nothing beside!

Gently I kneel by the sleepers;
Softly I whisper a prayer;
"Keep them, my innocent birdlings,
Father, all safe in thy care
Till, with their angel arms round me,
Never to part or to die,
Oh, I will bless Thee! for Heaven
Needs naught to remember them by."

—*Mrs. G. W. White in Herald of Health.*

East and West—No. 8.

Social Life (Concluded).

[Written for the PRESS by PHILMORE.]

We do not propose to go back 40 or 50 years to learn how to live in this fast age, but simply to show how people got along in those days when a woman could perform so much more labor and with comparative ease than the average woman of to-day can do. It was no unusual thing for one woman—and often not a very strong woman at that—to cook and wash for a large family, besides attending the baby and doing all the other house work. She would also weave in the course of a year a great deal of cloth, by which she got her pin money. And that, too, was spent on the family. Such were our mothers and grandmothers. And hard as was their lot, it is preferable to the cat-and-dog life that is lived now when the husband is unable, or it may be unwilling, or possibly both, to indulge his wife in idleness and foolish habits, to which she may be inclined. It is not many years since, in our old homes, it was proper, and certainly it was very pleasant, for neighboring women to invite each other to spend the afternoon and take tea. They came with their sewing or their knitting work, and talked, if not scientifically upon great and momentous questions, at least they conversed as sensibly as the ladies do now that make their flying calls in their grand carriages, with their liveried lackeys, going from house to house as rapidly as they can, in order to get through with as many as possible in the shortest space of time, and only too glad when the servant, well trained to lie, says "not at home." Their cards are left, and, consequently the debt is canceled, and all that agony is not to be gone over again until the same formality is gone through by returning the call. And so it goes on from month to month and year after year. Not that they are benefited or that they become better acquainted, but one of the usages of society has been complied with, and they consider their duties at an end.

It is not alone the utter worthlessness of such women, but they are only too likely to become mothers of worthless daughters, and, as for that, of sons also; for is it not a fact that we degenerate in the mental as well as the physical sense by too much luxury and ease? Indeed, it is said, with much truth, that "were it not for the reinforcements of fresh, noble man and womanhood from the farms of the country, our city population would rapidly deteriorate both in mind and body."

And yet it is the ambition of nearly every youth in the country to make his future home in the city. On this rock many a young man of fine prospects has been wrecked, while a few with superior minds, it may be, or possibly by force of circumstances or by luck, have arisen to positions and prominence, but almost as certainly to decline in the next generation and another re-enforcement from the country must march in and supersede them. And so it has gone on for generations, and doubtless will continue to do so for generations to come—all that has been written or that may be written to the contrary notwithstanding.

We believe one of the greatest moral curses of city life in our day is the unbounded extravagance in women's dress. To say nothing of the enormous expense attending such dressing, and the constant trouble and annnoyance to the woman of fashion who must be constantly on the *qui vive* for new patterns and new goods, in order for her to be up to if not a little ahead of her rival in fashion. What must be the effect upon the virtuous poor, whose ambition is as great as that of her who dresses in silks and satins and whose diamonds dazzle the beholder, but whose beauty her own excels. In this she knows she has the advantage. "It is a dangerous dower, the dower of beauty," but it is too often the capital upon which the young, the foolish and the ambitious build their hopes and sow the seed from which they reap the whirlwind.

Who that have lived long in great cities have not witnessed the evil influences of such display upon the young and unsophisticated? It is seen on every hand. Even the house of God is invaded and the modest poor shrink abashed from its presence, mortified at their own mean apparel beside such magnificence. And this is one of the chief causes of the non-attendance of hundreds of poor but proud girls who otherwise might be benefited by good advice and gospel teachings. The rich and haughty exult in the chance position in which fortune has placed them, while the poor feel insulted by their arrogance and contempt.

Not only is this great moral evil felt in all great cities but another and more lasting injury is done to posterity by such excessive luxuries that weaken the constitution and make more and more effeminate our children that are expected to fill our places when we are no more.

In Hindostan the girls, from their earliest childhood, are accustomed to carry burdens upon their heads. This exercise is said to strengthen the muscles of their backs, while the chest is thrown forward. No crooked backs are seen in Hindostan. It is the same in European counties, especially so in Germany, where they carry burdens in the same primitive way. In France and Italy the peasant girls are considered the models of symmetry and proportions. But even they, strong and healthy as they are at home in their own country, when transplanted to this, with all of our luxuries and tender cares, like too-much-watered exotics, they die of excess. We have come to believe that a slender waist is a type of beauty. But a too-slender waist is suggestive of many ills, all of which it might be well for poor young men to beware of.

Does the reader think that because women in the old country do something to help their fathers or their husbands, and at the same time help themselves, that they are less companionable or less appreciated? If so, let her, if she be a woman, divest herself of such an idea, and remember it is the custom of the country to which they belong. The writer, in conversation recently with an intelligent German, whose father was a well-to-do manufacturer and employed quite a number of persons, learned that a great deal of what was called the business of the concern was done by his sisters. One of them kept the accounts and attended to such other matters as are usually left to the men in this country.

This same sister would frequently be required to visit one of the villages, eight or ten miles away, in the interest of her father. And she went on foot and alone, often returning through the woods after dark, where her lover would meet her and accompany her home. He was a well-to-do young man and made a liberal settlement upon his wife when they were married. Did he think less of her for what she did? Has he not blessed her a thousand times for what she did then and is perhaps still doing for his comfort and interest?

This is no fancy sketch. Ask any son of the fatherland and he will tell you it was almost his own history. And there are no happier or more honest and reliable people in the world than these same Germans, and it is this that has made them the great nation that they are, and as long as they continue self-reliant they will continue to be great. Too much prosperity may be an injury to them, as it has been to us. But we trust that our experience may not be lost upon them, and that we may as a nation go back to where we lost our virtue and honesty and take a new start in the right direction.

Look at France, one of the most wonderful countries on the globe, at one time governed and controlled by scheming and dishonest men. What a trying ordeal she has gone through, and yet to-day the world looks on with wonder and admiration of her wonderful recuperative powers, that speak plainly of her future. And to what is it attributed but to the industry and indomitable energy of her people. The people of the United States may not be lacking in energy nor in ability, but it seems to be misapplied in more than one sense, and the result is we are as a whole great losers, though a few may be benefited.

What are the interests of New England to-day compared to what they were 20 years ago? Then they said to the great West, "Send us your grain and we will send you our machinery and manufactured goods." To the South they said the same, and it seemed as if these two great sections of our country had no alternative but to accept the conditions. How is it to-day? The unfortunate South is helping herself and the great West is not only helping herself, but she is sending her manufactured products as well as the products of her soil to New England markets, where they are able to compete strongly with home productions. And the result is, many of the manufactories in the Eastern States are idle with no prospect of soon starting up. A few have turned their genius and facilities to good account by the manufacture of arms and tools for the war-worried nations of Europe. This cannot last long and to what use can they then put the millions of dollars' worth of machinery which they must then have on hand?

The above are serious questions, all-important to the people of New England, and we hope something may develop to help them out of their dilemma. But for the sake of the rest of the country, no more inflation.

In concluding Social Life we would gladly suggest some better way for moral reform than by submitting to hardships and privations ourselves, but we fear we must begin at home and first learn how, and then, perhaps, others will emulate us.

Economize, help the poor that try to help themselves; set them examples in economy regardless of the opinion of those that only think of self. Let the poor buy what they can pay for and live within their means, nor invest their all in stocks and lotteries, nor, like the character in the play of "Rich in Spite of Himself," let them include the date in their daily footings for fear of a sudden collapse.

"Costly thy habit as thy purse can buy,
But not expressed in fancy; rich, not gaudy,
For the apparel oft proclaims the man."

And it may be well to remember that "fashion wears out more apparel than the man." And finally, we shall ennoble ourselves by doing good to others, and reap our just reward here and hereafter.

"Oh, this life
Is nobler than attending for a check;
Richer than doing nothing for a bauble;
Prouder than rustling in unpaid-for silk."

WOMAN'S AFFECTION.—Washington Irving once wrote: As the dove will clap its wings to its sides and cover and conceal the arrow that is preying on its vitals, so it is the nature of woman to hide from the world the pangs of wounded affection. With her the desire of the heart has failed; the great charm of existence is at an end. She neglects all the cheerful exercises that gladden the spirits, quicken the pulse and send the tide of life in healthful currents through the veins. Her rest is broken, the sweet refreshment of sleep is poisoned by melancholy dreams, "dry sorrow drinks her blood," until her feeble frame sinks under the last external assailant. Look for her after a little while, and you find friendship weeping over her untimely grave, wondering that one who had so lately glowed with all the radiance of health and beauty should now be brought down to "darkness and the worm." You will be told of some wintry chill, some light indisposition that laid her low; but no one knows the mental malady that previously sapped her strength and made her so easy a prey to the spoiler.

BEGIN AT HOME.—Why do you begin to do good so far off? This is a ruling error. Begin at the center and work outward. If you do not love your wife, do not pretend to such love for the people of the antipodes. If you let some family grudge, some peccadillo, some undesirable gesture, sour your visage toward a sister or daughter, pray cease to teach beneficence on a large scale. Begin, not at the next door, but within your own door, then with your next neighbor, whether relative, servant or superior. Account the man you meet the man you are to bless. Give him such things as you have. "How can I make him or her happier?" This is the question. If a dollar will do it give a dollar. If advice will do it, give advice. If a look, a smile, a warm pressure of the hand, or tear will do it, give the look, smile, hand or tear; but never forget that the happiness of our world is a mountain of golden sand, and that it is your part to cast some contributory atom every moment.

HOW TO PUT CHILDREN TO BED.—Not with a reproof for any of that day's sins of omission or commission. Take any other time than bedtime for that. If you ever heard a little creature sighing or sobbing in its sleep, you could never do this. Seal their closing eyelids with a kiss and a blessing. The time will come all too soon when they will lay their heads upon their pillows lacking both. Let them, then, at least, have this sweet memory of a happy childhood, of which no future sorrow or trouble can rob them. Give them their rosy youth. Nor need this involve wild license. The judicious parent will not so mistake my meaning. If you have ever met the man or the woman whose eyes have suddenly filled when a little child has crept trustingly to a mother's breast, you may see one in whose childhood's home dignity and severity stood where love and pity should have been. Too much indulgence has ruined thousands of children; too much love not one.

Women's Clothing.

Of late there have been many signs that women, at least, are becoming alive to the strong control of clothes upon their fate. From time to time we hear of revolutionary associations instituted to free them from the weight of ruchings, and burst for them the fetters of Valenciennes and ribbons, Now it is a band of sedate English women who are pledging themselves to a convenient, if doleful, livery of perpetual black; now it is the patriotic and contrite ladies of Prussia who, under imperial patronage, swear resistance to their too fondly obeyed tyrants and natural foes, the milliners of Paris; now it is a fiery squadron of American amazons who are enrolling themselves to do battle with the hostile world for health, happiness and trousers.

We all find food for mirth in such associations, for we are agreed that dress is a trifle, and the idea of an association at all about such an indifferent matter reminds us of the famous tempest in a tea-cup—and when trousers get into the discussions we laugh still more, because it is understood that the mere name of trousers is a capital joke. Yet, after all, there is something to be said for the women who "agitate" about their clothes. There is no doubt that the dress of Western women is cumbrous and, by its weight and the impediment it puts in the way of active exercise, a bondage; there is no doubt that it is unduly expensive and there is no doubt that it sins nearly as often and as much against artistic as against hygienic fitness. Raiment better adapted to the need, lighter to bear, more complete as a protection against vicissitudes of weather, allowing the whole body more play and, if one may dare to say it, less display, more lasting, and more graceful, is an improvement no sane observer can pronounce unneeded.

But a woman of the smallest self respect, whatever might be her courage, would decline to adopt singly, no matter how rational and modest, a costume which could be a surprise to beholders; and no scattered missionaries, though looking never so comfortable and never so picturesque, could entice the female multitude to imitate their venture. If ever a material alteration is effected it must be by the union of many. Here is a difficulty at the threshold, for such union could ill be achieved except by the efforts of an association, and in such a cause the very name of association is a hindrance, suggesting suicidal parade and publicity over a reform in which of all others an unobtrusive modesty would be essential.

Supposing that difficulty disposed of, the fatal difficulty is reached: What should the dress be? There is an old round which runs, "Let us be merry in our old clothes for we shall never get new." For want of the perfect dress to which a fairly representative woman's parliament could be got to agree, the sufferers under too much skirt will have a good many years yet in which to sing that chorus.—*London Examiner.*

MUSICAL DOG.—A dog with an ear for music is owned by a man in Troy, New York. The man's daughter is taking lessons on the piano, and devotes several hours a day to practice. One day the dog was in the room, and showed great interest in the piano. He jumped upon the table and looked at, ran under and around it, leaped upon it and peered into it, as if trying to find out where the sounds came from. Soon after, when the young lady was playing, the dog tried to imitate the notes. Afterward, while she was practicing, the dog almost daily would try to sing; he did not bark nor howl, as dogs will often do at the sound of bells. Although he could not pronounce fa, sol, la, mi, do, etc., he succeeded in a good imitation of the sounds, and could cause his voice to rise and fall with the notes. All this was at first only in the presence of the young lady. When she told her mother, and invited her to be present, the dog would not sing. By and by, however, his fondness for music overcame his bashfulness, and he would sing in the presence of the two ladies. Afterward other members of the family were called in, and now the dog, having conquered his modesty and gained confidence in his own power, will exhibit his musical talents in the presence of any company. He is certainly a wonderful dog, and if properly encouraged may learn to talk as well as to sing, and become a living proof of the Darwinian theory of evolution.—*Springfield Republican.*

LIMIT YOUR WANTS.—From the nature of things, the income of most of the inhabitants of the earth must be limited, and, indeed, within very narrow bounds. The product of labor throughout the world, if equally divided, would not make the share of each individual large. It is impossible that every one should be what is called rich. But it is by no means impossible to be independent. And what is the way to compass this—as Burns appropriately designates it—"glorious privilege?" The method is very simple. It consists in one rule: Limit your wants. Make them few and inexpensive. To do this would interfere but little with your real enjoyment. It is mostly a matter of habit. You require more or you are satisfied with less, just as you have accustomed yourself to the one or the other. Limit your wants, estimate their cost, and never exceed it, taking pains always to keep it inside of your income. Thus you will secure your lasting independence. Young men, think of this. A great deal of the happiness of your lives depends upon it. After having made your money, spend it as you choose, honestly; but be sure you make it first.

Wealth is not Happiness.

The first mistake which is made by most men is in making wealth the object of their lives. But wealth, as we know, does not give happiness. The Vanderbilts, the Stewarts and the Astors have not beeu our happiest men. They are not typical men in the home; they are not the typical men in social life; they are not the typical men in the delights of life, or in the progression of learning, which perhaps yields the finest joys men cau know. We can go down lower still, and find the men who have only one million or so, or a half a million, and they do not type the happiness of American homes. Go into their houses. How splendid, how gorgeous, how gaudy they are, and yet they cannot rival the little homes in the love of a husband and wife, the reverence of children for parents, in the parents' guardianship over children, in all the sweet happiuess that affeotion spreads abroad like a fragrance throngh the chambers of our honses. You know that almost every American gets wealth who chooses to, though he loses it again, perhaps; but he gets it. It is not great proof of ability nor evideuce of success for a man to get wealth in this country and this age. Now, then, it seems to us that if a young man should picture to himself rather a quiet house, sunnily placed on some hillside, with a stretch of meadow in front, through which courses a runuing stream, shaded by pleasant trees, with a loviug wife, a gronp of pleasant-faced and virtuous children, quietude of days aud peacefulness of nights, health and contentment of mind, that wonld he much better than to set up a fictitious standard and strive inoessantly for it as though you must reach it or be utterly undone.—*Murray.*

Humors of the Ostrich.

Mr. Hellier thus describes a sceue he witnessed in an ostrich enolosure belonging to Mr. Douglas, of Hilton, a farm about 12 miles from Graham's Towu: "Out of the enclosure given up to the exclusive use of this polygamous family of three, we entered through a locked gate into a large euclosure or paddock, in which were 58 one and two-year-old birds. They all looked exceediugly well, and though they did not dance, they seemed full of lite. They do sometimes favor the spectators with a dance, and it is one of the fnnniest of all the freaks or habits of animals that evideuce a sense of the jokeful we ever beheld.

"We once saw some 20 nearly full grown birds waltzing together. They began with a sort of sidling, slow revolution on their toes, moving their wings gently up and down, and presently they seemed to get into the spirit of the thing, without the aid of any fiddler that we saw, and spun round at a rate that would have astonished any one but a dancing dervish. In dancing they swept round and ronud without ever coming into contact with each other.—*London Spectator.*

Moon-Stroke.—An Indian correspondent writea to *Nature:* There is a popular belief that it is dangerous to sleep in full moonshine, as it is anpposed to produce some injurious effect called moon-stroke. A clear sky admits of rapid radiation, and any person exposed to auch radiation is sure to be chilled by rapid loss of heat. There is reason to believe that under the circumstances paralysis of one side of the face is sometimes likely to occur from chill, as one side of the face is more likely to be exposed to rapid radiation aud consequent loss of its heat. This chill is more likely to occur when the sky is perfectly clear and in a full moon. I have often slept in the opeu in India on a clear summer night when there waa no moon, and although the first part of the night may have heen hot, yet towards two or three o'clock in the morning the chill has been so great that I have often been awakeued by an ache in my forehead, which I as often have counteracted by wrapping a handkerohief round my head and drawing the blanket over my face. As the chill is likely to be greatest on a very clear night, and the clearest nights are likely to be those on which there ia a bright moonshine, it is very possible that neuralgia, paralysia or some other similar iujnry caused by aleeping in the open, has been attributed to the moon when the proximate cause may really have beeu the chill.

A Punctuation Puzzle.—The following article forcibly illustrates the necessity of punctuation. It can be read in two ways, making a very bad or a very good man, the result depending upon the manner in which it is punctuated. It is well worthy the study of teachers and pupils: "He is an old aud experienced man in vice and wickedness he is never found in opposing the worka of iniquity he takes delight in the downfall of his neighbors he never rejoices in the prosperity of any of hia fellow-creatures he is alwaya ready to assist in destroying the peace of society he takes no pleasure in serving the Lord he ia uncommonly diligent in aowing disoord among his friends aud acquaintances he takes no pride in laboriug to promote the cauae of Christianity he has not been negligent in endeavoring to stigmatize all public teachers he makes no effort to aubdue his evil passions he atrives hard to build up Satan's kingdom he lends no aid to the support of the gospel among the heathen he contribntes largely to all that is evil he pays no attention to good advice he pays great heed to the devil he will never go to heaven he must go where he will receive the just recompense of reward."

Young Folks' Column.

The Letters at School.

One day the letters went to school,
And tried to learn each other;
They got so mixed 'twas really hard
To pick out one from t'other.
A went in first, and Z went last;
The rest all were between them,—
K, L and M, and N, O, P,—
I wish you could have seen them!
B, C, D, E and J, K, L,
Soon jostled well their betters;
Q, R, S, T—I grieve to say—
Were very naughty letters.
Of course, ere long, they came to words—
What else could be expected?
Till E made D, J, C and T
Decidedly dejected.
Now, through it all, the consonants
Were rudest and uncouthest,
While all the pretty vowel girls,
Were certainly the smoothest.
And simple U kept far from Q,
With face demure and moral,
"Because," she said, "we are, we two,
So apt to start a quarrel!"
But spiteful P said, "Pooh for U!"
(Which made her feel quite bitter),
And, calling O, L, E to help,
He really tried to hit her.
Cried A, "Now E and C, come here!
If both will aid a minute,
Good P will join in making peace,
Or else the mischief's in it."
And smiling E, the ready sprite,
Said, "Yes, and count me double."
This done, sweet *peace* shone o'er the scene,
And gone was all the trouble!
Meanwhile, when U and P made up,
The cons'nants looked about them,
And kissed the vowels, for, you see,
They couldn't do without them.
—*M. M. D., St. Nicholas for December.*

Behaving at a Party.

The rules for any party are not different from those for behavior at home. You dance and play and make yourself pleasant, just as you do at home always. This ought to put some of you on your good behavior, for, try as you will, and put on all you can, you can't show anything better in company than your old home everyday manners. You may set out to be very polite, but unless you are polite every day, the shabby, rough, common style gives all the impression that people get of you. Manners are not like clothes, that you oan put on fine or coarse at pleasure, but like your spine and shoulders, that grow straight or crooked, as you carry yourself all the time. And let this be a caution, never to have manners too fine far everybody, or to try and be so nice that you cau't carry it out. I mean, don't use too fiue language, or try to be too sweet, or tire yourself out waiting on people, just to make an impressiou. Don't smile every time you speak to any one; it looks silly, and you should allow somebody at home to make fun of you a good many times to break you of the habit. Smile when there is anything to smile at, but to grin or giggle wheu you say any common thing, like "It's a pleasant day," makes you look little better than a fool.

When supper is served, a boy will look for some little girl to wait on, and bring her what she asks for, a plate of oysters or cup of beef tea, which is fashionable for parties now, or some cold tongue first, then cake and jelly with ice-creams, and the grapes and candy afterward, if there are such things. But a geutleman does not take his supper till he sees that whoever he waits ou has all she wauts first. At a sit-down supper people look out for themselves more. Don't try to eat all the good things you cau, and don't carry off anything in your pocket to eat afterwards. Don't be greedy, and what is more, dou't speak of it if you aee anyoue else greedy, Remember the good old rabbi, who waa awakened by one of his 12 sona saying, "Behold, my 11 brethren lie sleeping, aud I am the only one who wakens to praise and pray." "Son," aaid the wise father, "you had better be asleep too, than wake to censure your brothers." No fanlt can be as bad as the feeling which is quick to see and speak of other people'a wrong.—*December Wide Awake.*

Eddie's Walk With an Umbrella.

Patter, patter, came the soft-footed rain on the house roof, street aud garden.

Eddie's papa was going to the post office and could Eddie go too? There he stood in his little gray frock, hia chubby face round as the moon, his hat bright with garden flowers that some one had stuck in it.

Yes, Eddie would go aud have an umbrella. Side by side, he and his papa went down the street. They met Susie Burton.

"I'm going to the post-office," said Eddie.

They went on.

"It's a wainy day," said Eddie.

"Quite rainy," said his papa.

"Post office far?" asked Eddie, making a great effort to keep up with his papa.

The little boy under his umbrella, the bright flowers stnck in his hat, amnsed the people in the street. A lady smiled. One man stopped and spoke to him. Two girls turned around and laughed. "Look at hia hat too," said one to the other.

Lillie Hastings came along. "Hallo, Eddie," said she. "What are you doing with such a big umbrella?"

"Keeping off the wain."

The rain stopped, and Eddie's papa shut his nmbrella, bnt Eddie still trudged along uuder his. "Opeu your umbrella, papa, mine is opeu," said the little boy.

How do you suppose it all ended?

"Papa, you carry me," said a tired voice under the hat bright with flowers.

Ah, that is the way all through life. When the storms come we think we can go alone. But out in the weary way God hears a tired voice saying, "Father, carry me."—*The Nursery.*

Good Health.

Typhoid Fever.

A. L. Loomis, M. D., in the *Medical Record,* says: It is difficult to determine the period of incubation, or length of time the poison must remain in the body before symptoms of the disease are manifest. The history of isolated cases would lead to the conclusion that the period varies from 14 to 20 days.

The next question that arises is, how does the typhoid poison gain admission to the human body? Undoubtedly there are two principal sources of infection, namely, the air we breathe and the water we drink. A large number of well autheuticated histories have now established the fact, that this fever may be developed by gases which emanate from privies, sewers, etc., which have been the receptacle of excrement from typhoid patients, and also by drinking water from springs and wells which have become contaminated by matters from adjoining privies and cesspools. It is also now an accepted belief, or rather is regarded as an established faot, that water remains contaminated, though far remote from the point where it came in contact with a defective sewer or water-closet.

Soil pipes and sewerage may be defective for a long time, perhaps a year, or even longer, and no case of typhoid fever occur, when suddenlyan endemic of typhoid fever breaks ont, and careful investigation shows that its development was preceded by the intoduction of the excremeut of a single individual sick with the disease.

It is the belief of some that milk can convey the typhoid poison, and there is evidence in favor of this opiniou; but I think there is stronger evidence that the water in the milk, and not the milk itself, is the medium through which the poison is transmitted.

This poison has great vitality. Typhoid fever frequently occnrs in the same locality year after year, when the surrounding conditions are favorable to its development. Those conditions which favor its development are more frequently present in the autumn than at any other season of the year, and for this reason it has been called autumnal fever.

Usually it makes its appearance in a locality, year after year, at about the same time; case after case is developed until entire households and neighborhoods become its victims. Individuals who oome to care for the sick may contract the disease, and even persons who visit houses in which the disease is prevailing may afterwards develop the fever, contracting it, not from the sick, but from the infected atmosphere of the locality.

Age must he regarded as a predisposing cause of typhoid fever. It is mnch more likely to occur in young than in old persous. It occurs most frequently between the ages of 15 and 25, and is rarely met with in persons over 50.

There are also individual idiosyncrasies which seem to predispose to thia fever. Some contract it upon the slightest exposure to the influence of the poison, while others, frequently brought in contact with it, through long endemics, escape. Again, an individual may have repeated attacks of typhoid fever. I have in mind a physician who had typhoid fever four times, the last attack proving fatal. A person who has had typhus or scarlet fever is not likely to have a secoud attack, but no such immunity follows an attack of typhoid fever. Whatever view we take of the exact nature of the typhoid poison, it has been quite conclusively demonatrated that the typhoid poison differs very essentially from that of other fevers.

From this brief review of the etiology of this fever, we are led to the following conclusions:

First.—That ita development is independent of over-crowding, and that it attacks the rich and poor indiscriminately.

Second.—That it may he communicated from one persou to another through the excrements which have undergone decomposition after their discharge.

Third.—That an endemic of typhoid fever only occnrs where the air or driuking water of the locality has become poisoned by emanatious from typhoid excrements which have undergone decomposition, and that, if the fever becomes epidemic, it is a circumscribed epidemio, and not widespread.

Fourth.—That the exact nature of the typhoid fever poison is still unknown.

New Febrifuge.—Dr. Brunnetti, of Constantinople, recommends the following mixture as being not only much cheaper but more efficacious than quiuine in malarious fevers: Chloride of sodium, 12 grammes, (185 grains); carbonate of irou, one gramme, (5⅓ grains); mix and divide into three powders. These three doses are to be taken in one day, one powder being taken in the morning, another at midday and the third at night. In order to prevent a relapse, one powder should be given every morning for eight days. He finds it also snperior to other anti-pyretics in tuberculosis, in smaller doses thau the above, but continued for a longer time.—*Chemist and Druggist.*

Domestic Economy.

Vinegar.

Editors Press:—Ninety per cent. of the vinegar sold in cities and large towns is compounded of drugs not fit to put into any creature's stomach, and the use of it will, in time, seriously injure the digestive organs. The genuine article, however, is not only harmless but often beneficial, aud the making of it is such a simple matter that no house should be without it. The followiug recipes are good ones:

To one gallon of water add one and a quarter pounds of brown sugar and one quarter pint of yeast. At a temperature of 80 deg., it will be sufficiently acid in three or four days to be drawn off, when an ounce of cut raisins and an ounce of cream tartar should be added. After a few weeks the sweet taste will entirely disappear, when it may be bottled.

Another, furnished by a successful housekeeper, is this:

Take a molasses or syrup keg, from which the molasses has recently been drawn, and fill three-quarters full with soft water, and let it stand in a warm place. Put into it any fruit parings and cold tea, and if any of the canned fruit or jelly commences to ferment, put that in; also, a small piece of light bread dough, wrapped in brown paper. The bung mnst be left out, to give it a chance to ferment. It will be vinegar in two or three months. This seems an odd collection of ingredients, but none of them are poisonous. It makes good vinegar, and costs nothing. L.

Preserving Eggs.

Editors Press:—Will you please inform a reader of your paper how to preserve eggs for winter use. Any information given will greatly oblige—Reader, Santa Rosa, Cal.

Various methods are proposed. The following is recommended by the *Poultry Argus:* No difficulty will be found in keeping eggs three or four months if taken when perfectly fresh and carefully packed in salt. For this purpose a stone jar holding from four to six gallons will be found the most convenient. Use very dry salt. Cover the bottom of jar with salt to the depth of half an inch; then set the eggs with small end down, in the salt; cover them over with salt and proceed in the same manner nntil the jar is filled; then set it away in a dry place. Unless the salt is dry when used and is kept dry afterward, it will get solid and it will he difficult to get the eggs out. By following the above directions you may have fresh eggs in midwinter, when they are scarce and high. The expense is trifling as the salt may be used again after the eggs are taken out. Be careful to put in only fresh eggs. A stale egg will not get any better by being packed in salt.

A correspondent of the *Foothill Tidings* sends that paper the following recipe: "Take a tight cask, set in a cool place. To each three gallons of water put in the keg, add one pint of fresh slacked lime and half a pint of salt. Mix well. Be particular to gather your eggs from the nests each evening—using china nest eggs. Put them in the keg carefully and keep them covered with brine. Put a float or board on top of the brine, with a little lime and salt on it, so as to keep the brine of equal strength. Should your brine become too strong, which is shown by the crystal film on top, add pure water.

Recipes.

Editors Press:—We have tried the following, and know they are good:

Baked Apple Pudding.

Line a pudding dish with bread crumbs, and put in a layer of sliced apples, with a little butter; then a layer of crumbs and another of apples, till the dish is full; bake from one to two hours, according to size; serve with a sauce made of milk or cream and sngar, flavored with lemon or nutmeg.

Surprise Cake.

One and a half cups of flour, one and a half teaspoous baking powder, half cup of sweet milk, half cup of butter, one cup of sugar, one egg; flavor with nutmeg. If preferred, use one teaspoonful of cream tartar and half teaspoon of soda instead of baking powder.

Muffins.

One and a half pints of flour, two spoonfuls of yeast powder, one egg, one tablespoon of butter, sweet milk, to make a thick batter. Waffles, same way, without butter. L.

Tomato Vinegar.

Editors Press:—As Mr. Raynor has asked some one how to make tomato viuegar, I will give him this recipe: First, pick good ripe tomatoes; wash and cook until thoroughly done; then pour the whole of the mash into a vat to ferment for a week; then pour the mash into a coarse sack and allow the liquor to drip off; then let the liquor stand in the open air for 12 hours; then rack off the liquor and let it stand until clear; then pour into barrels. Keep where the temperature will be 60 degrees.

Mrs. Nancy Reed.

Linn's Valley, Dec. 2d, 1876.

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Our latest forms go to press Wednesday evening.

No Quack Advertisements Inserted in these columns.

SAN FRANCISCO

Saturday, December 16, 1876.

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The Week.

Bright, warm sunshine and cloudless skies are becoming a burden. The interests of agricultural success in many counties demand a succession of those dark, damp, disagreeable days which the mind shrinks from, but which the pocket blesses. Our advices from several regions of the State are that work now waits for the rain, and the early sown grain pines for refreshing. This is in those parts which the October showers awakened to activity of plant and tools. In the southern part of the State, which the October rains reached not, there are even darker surmisings, and, as a correspondent notes, men's minds are returning to the years when green things were few and cattle looked for food. It is early to draw such dark pictures, for time still remains for rain, and it is more cheerful to trust than to grow despondent.

The cessation of work in the country is felt keenly in several lines of the city's trade. Implement dispensers wait the orders of the workers and seedsmen find no inspiration in the thought of fields closed against the sower. Rain is needed to give new life to all, for with the rain will come renewed confidence in the season and renewed spirit of demand and investment in the farmers, from whom comes the city's life and activity.

Large Talk in Agriculture.

No forced growth is hardy and enduring. This is as true in industries as in plants. Enterprises which are thrust upon the attention of the world with the best of their possibilities set down as every day averages, are quite apt to enlist a wide following, but when experience shows the true average there is disappointment and distrust. It is always safer to grow more slowly; it is always more satisfactory to anticipate moderate results and then may come the joy of unexpected success with doubled keenness.

Suppose we apply these general considerations to the condition of California agriculture as thus far developed. It cannot be denied that there have been some disappointed ones among those who have come to this State to engage and invest in agricultural pursuits. Has this been because our State does not possess agricultural advantages? Not at all. But the cause of the failure and disappointment in most cases can be traced directly to what we may call the "large talk" in our agriculture. For example: here is a man who in some unusually fine location and by the application of just the requisite skill has produced a crop, be it of fruit, nuts or grain, which has yielded him a heavy weight of marketable produce and filled his pockets with dollars; scoring, perhaps, several hundred per cent. on the investment in a little time. This is a moderately frequent feat in our agriculture. So far as it, in itself, is concerned, it is just as true and just as real as the existence of the State. But hence intrudes the error. The "large talker" gets possession of the facts and he talks (generally in type,) about this immense fact as though it were common as sunshine and, in fact, as frequent as winds in August. He figures the result on ten or a hundred acres, perhaps, and then concludes with a glowing tribute to the State, where a million men can reap this great and notable harvest. He loses sight of the special natural advantages which produced the result; he makes no account of the special understanding of the undertaking which the successful man possesses. He just puts down a grand and special fact as a common average and thus commits the error. The result following, naturally, from such use of facts is, that the foreign reader finds his vision filled with the fictitious average greatness, comes to this State, makes his investment carelessly in an unfavorable position, puts in his crop carelessly or without sufficient knowledge of its requirements, and reaps a result far below the average which the "large talker" held out to him.

It is unfortunate that California agriculture has received so much attention from large talkers. They are innocent of the harm they accomplish. They generally state nothing but facts, but they make such wide application of facts that men who listen lose all sight of the requisites to obtain them. Thus the facts, because of their false use, become fallacies, and those who cherish them are destined to disappointment. Led by these innocent fallacies men are led to pledge themselves for payment of large sums of money, and plunge into improvements the cost of which is hypothecated upon the coming grandeur which the large talker has outheld. Instead of beginning carefully and wisely, and rendering themselves liable only so far as actual results warrant it, these men begin from directly the opposite direction, and when the success, which they have not been wise or diligent enough to achieve, fails them, they have nothing but evil words for the State which they have not taken trouble enough to study and understand.

It is unfortunate, in the second place, that we have had so large a share of the voice of the large talker, because the actual truth about our agriculture is good enough without embellishment. The promise is great, but its rewards must be sought just as agricultural rewards must be sought anywhere else in the world, and that is wisely, and with no inflated ideas of their greatness. Agriculture here must be thus pursued, and to one who thus runs its results are plain to read. Let all statements of grand and unusual achievements in our fields, orchards and vineyards be made known. We delight in the description of them and we expect their number to increase as our population increases and as greater numbers of wise and diligent workers are added to our farming population. But as we write of them and talk of them let us not generalize without due regard to the skill, labor and special natural advantages which produced them. We need a little more sharp-shooting in our agricultural talking and writing in this State. We need a little fuller regard for causes and effects. For even if all our State were as good as the best, and even if tropical fruits rolled down from the crests of the Sierras, we should remember that all readers are not wise and not all would know how to gather and market the glorious crop. Lest we should not mislead, let us always state that skill succeeds; that patient experiment and research are the true keys to success; that this is a glorious land, but it requires skill and labor to possess its greatest blessings.

ON FILE.—Inquiries on "Flax," "Poultry Houses, etc.," "Bleaching Beeswax," "Aughinbaugh Blackberry," "A Description of Santa Cruz Co.," C. N. W.

Thin Seeding of Wheat.

The theory of advantages from thin seeding of wheat, and experiments demonstrating these advantages in certain cases, are not new. Although for a hundred years in English wheat-growing the heavy seeding of two and-a-half and three bushels to the acre has prevailed, still there have been fields sown and reaped where the seed was but a handful, and loud have been the proclamations of the saving and the profitable production.

A somewhat novel experiment in thin sowing of wheat is reported from one of the northern counties of the State, but before describing it we wish to instance some of the early experiments which are noted in English agricultural records, so that a contrast can be made between the old and the new in thin seeding. We read that at the beginning of the last century Jethro Tull began the practice of sowing half the land in portions of three feet, embracing three rows, having unsown intervals of the same breadth between them, and he found that he could grow heavier crops on half the land than his neighbors did on the whole. Mr. Smith, too, practiced this plan for nearly 20 years, and produced on half the land from 35 to 40 bushels of wheat per half-acre. The amount of seed sown was from one to two pecks per acre, no more being ever applied.

The *Mark Lane Express* mentions Mr. Hallett, of Brighton, who cultivated "such a barren spot as to be considered actually incapable of growing wheat. We saw this field under wheat seeded at the rate of one peck per acre, the product of which was a crop of 48 bushels per acre. There was no under-corn in Mr. Hallett's crop, the ears being all one hight, and as level on the top as a table."

Another case is that of Mr. Piper, an Essex miller and farmer, who, for 25 consecutive years, grew wheat every year without manure, except a dressing of soot, and without plowing the land, using only a hoe to scuffle in the seed, and planting in at the rate of one and a quarter pecks per acre. It was said that the produce exceeded by eight bushels per acre more than obtained by the neighboring farmers, and in one season reached to 56 bushels per acre. This is a result directly in the face of thorough cultivation.

Concerning the yield from single grains of wheat we have the very satisfactory experiments of Mr. Miller, the curator of the botanical gardens at Cambridge, inserted, on account of the experiment which he undertook, in the Philosophical Transactions of the Royal Society: "In the month of June, 1866, sowed some wheat, and on the 8th of August one plant was taken up and separated into 18 parts, and replanted. These plants were again taken up and divided, in the months of September and October, and planted separately, to stand the winter, and this division produced 67 plants. These were again taken up in March and April, and produced 500 plants. The number of ears thus formed from one grain of wheat was 21,100, which gave three pecks and three-quarters of corn, estimated at 576,840 grains. The land was of medium quality, and no manure applied."

With these facts in mind we are ready to consider the experiments which a California farmer has made in a similar direction during the past season. A correspondent of the *Bulletin* states that D. O. Bissell, who resides in Goose Lake valley, Modoc county, California, is a practical as well as a theoretical farmer. He holds that the old mode of wheat raising—that is, of sowing from 100 to 150 pounds of grain per acre—is wrong, contrary to the true principles of agriculture, an unnecessary waste of seed and exhaustive to the soil. In conversation with a party of friends (farmers) he presented that proposition, stating further that he could raise 40 bushels of wheat to the acre from one pound of seed. The idea being scouted as impossible he offered to wager $20 that he could do it. The wager was accepted, whereupon Mr. Bissell, on the 8th day of last April, proceeded to put his proposition to the proof by having one-eighth of an acre carefully measured in the presence of witnesses. It was subdivided into spaces about 10x37 inches apart, and two ounces of seed were planted, the seed having been carefully weighed, the grains counted and the ground spaced so as to take but one seed in each place. It was then irrigated and cultivated like Indian corn.

"Now for the result as harvested in the latter part of September. The number of heads per stool was from 60 to 118 well developed heads. I send you a sample stool, one of many from the plat, which contained 135 heads, 118 of which were fully developed. The number of grains per head in this stool was 80. Over one-half yielded 100 grains each. Owing to an accident, Mr. Bissell failed to get the accurate weight or measurement, but making all due allowance for that wasted, the yield was 10 bushels, or at the rate of 80 bushels per acre, 40 more than the proposition called for.

"Now compare the above result with an average crop sown broadcast. I am assured that the average number of heads per stool in an average field of wheat, sown broadcast, is not over five of 40 grains each, which would be not less than 333 bushels per acre, if all the seed grew. What becomes of the seed? In the field where this little plat grew there was sown broadcast at about the same time, 100 acres. It was irrigated, as was the other, and harvested at the same time. It was put in good shape, had the best of care, and at an expense of $300 for seed alone. The yield was not over 20 bushels per acre, or 2,000 bushels for the crop. Had this 100 acres been planted and cultivated as the eighth of an acre was, with like results the outlay for seed would have been, at three cents per pound, the price of the grain sowed, $300; the yield, 8,000 bushels. Mr. Bissell informs me that he will plant 35 or 40 acres next spring, using the seed planter and cultivator instead of the broadcast sower."

This is the matter which we present for consideration under the head of thin seeding. It is an interesting statement of what the wheat plant will do under certain conditions. It is worth experiment at the hands of others, but let no one think that because such results are heralded from one location they may be expected to reproduce themselves in all. Although the wheat plant will stool out thus widely it must have clean land, else, while the deliberate stooling is in progress, foul growths will spring up and defy any ordinary amount of cultivation to overcome them. It must be remembered also that extra moisture is necessary, for the evaporation from the surface will be vastly more from the open cultivation than from a well-covered field. These and other matters must be considered in the light of local conditions, and even where these conditions are not favorable to profit by the experience of the Northern grower it is interesting to know the facts as above presented.

Mignonette as a Honey Plant.

Have many of our readers put in mignonette as a bee forage? This fragrant plant, which lingers in the Englishman's sweetest memories of the "old country," which is cultivated with great difficulty in the teeth of Eastern frosts, and which grows in this State with the luxuriance of the heliotrope and the geranium, is coming into prominence as a honey plant. It has been tried by California beekeepers and has been found worthy of attention. We have seen the fragrant plant grow in our dooryard as rank as red clover, and throw up a vigorous second growth with the promptitude of alfalfa, Such being its habit here it would be even more valuable as a honey plant than in other climes. The best words in favor of it come from Mr. J. E. Johnson, editor of the *Utah Pomologist*, and the possessor of a large apiary, who writes to the *Beekeepers' Magazine* as follows: "After a continued experience of 10 years, I find that mignonette is the best honey plant I have found. It is almost as hardy, and blooms as late as any honey plant, and is an ever-bloomer, giving myriads of blossoms and is covered continually by the bees. My bees are still lively (Nov. 22d) on the beds of bloom. I believe that one acre of mignonette would furnish sufficient pasturage for 100 stocks of bees."

The use of mignonette is not new to California beekeepers. We have had record of its successful use. We allude to the subject again, thinking to extend its usefulness.

CORN GROWING.—Some experiments in growing Indian corn have been made during the past summer at the East, in competition for the prizes offered by Conrad Wilson. The following are some of the items of the growth and cost of corn: First, a yield of 225 bushels per acre of corn in the ear by E. Hopkins, of Arkansas; second, the cost per bushel for corn on one acre, 19 cents, by R. A. Stanton, of Maine; third, pork from one bushel of corn, 18¼ pounds, by S. Ferguson, of Canada; fourth, butter from one bushel of corn, eight and a quarter pounds, by S. L. Foster, of Massachusetts. The remarkable result obtained by John Howard, of Michigan, in feeding for pork, though almost incredible, was duly attested by the weigh-master. When properly corrected the result was found to be 24½ pounds of clear net pork from 56 pounds of corn meal. According to Joseph Harris, 100 pounds of corn over the amount required to sustain the animal should give 61 pounds of pork. If this figure is correct, it shows that 34 pounds of pork are possible from one bushel of corn. The nearest approach to this as yet appears to be the result obtained by Mr. Howard in this competition. The product of M. C. Baldwin, of Chemung, N. Y., was 25 pounds of live weight from 57 pounds of corn meal. If we take the dressed weight, as before, at 20 per cent. less, it gives 20 pounds of clear pork from one bushel of corn. When pork is worth seven cents per pound, this rate of feeding would give $1.40 per bushel for the corn.

CARROTS.—We saw something noteworthy in the way of carrots at Mr. Trumbull's store the other day; there were four roots grown by Mr. Watt, of San Leandro township, Alameda county, which weighed 4 lbs. 3 oz.; 4 lbs. 12 oz.; 6 lbs. 9 oz., respectively. Another root was curious, being doubled from point to crown and yet perfectly united. It was evidently the growth from one seed, and was noteworthy because of the uniform size of the two parts. The larger roots named above were three and four-pronged.

LAND FOR SALE.—James Munsell, Sr., offers for sale his ranch in the foothills of Placer county. This is a favored region, and his advertisement should receive attention.

The Black-billed Cuckoo.

This species of cuckoo (*Circulus Erythropthalma*) is nearly as nnmerous as others, but from its general resemblance has been confounded with the yellow cuckoo. Its particular markings, however, and some of its habits, sufficiently characterize it as a distinct species. The general color is nearly that of a yellow cuckoo; it is almost an inch less in length; the tail is of a uniform dark, silky drab, except at the tip, where a great many feathers are marked with a spot of white, bordered above with a slight touch of dull black; the bill is wholly black, and much smaller than that of the yellow, and it wants the bright cinnamon on the wings. But what constitutes its most distinguishing trait is a bare, unwrinkled skin, of a deep red color, that surrounds the eye. The female differs little in external appearance from the male. The black-billed cuckoo is particularly fond of the sides of creeks, feeding on small shell-fish, snails, etc. There are also found broken pieces of oyster shells in its gizzard. The eggs of this cuckoo are smaller than that of others, usually four or five in number, and of a rather deeper greenish blue.

Wilson deserves the credit of distinguishing this species. It is closely allied to, but differs widely, both in its habits and feeling, from its congenors and the true cuckoos. In addition to shells and water insects, Audubon mentions having found in their stomachs a small black frog which appears after a rain.

A Self-Lighting Lamp Burner.

Who that has lighted his match to find the lamp and then made the struggle to remove the chimney and touch the wick before the fire reaches his thumb, has not wished that lamps would light themselves? We give on this page a little engraving of an attachment which promises to do just that. As may he seen from the drawing, the attacbment consists of a tube fitted into the burner, with proper fastenings. The upper part of the tube is divided into two parts, the edges of which are tnrned inward and provided with teeth similar to a saw. By inserting a common friction match into the tube from the outside of the burner, as the matoh is forced up toward the wick tube it becomes ignited, and is fired thereby to light the lamp. For convenience at night a match can be partly inserted, so as to be pushed fnrther up and ignited instantly at any time.

Our representative at the East writes us that he has seen this little appliance work to his satisfaotion. He informs us, also, that should there be any parties who wish to introduce the sale of it on this coast, they may address the "Manhattan self-lighting lamp company," No. 62 Fulton street, N. Y. Samples will be sent post paid, on receipt of 50 cents in currency or postage stamps.

THE SEASON IN THE INTERIOR.—The wide-reaching of rain is shown in the following extracts from correspondents. George Rich writes from Sacramento county: "Farmers generally are quite busy at present. The holding off of the rains gives them a good opportnnity to accomplish a large amonnt of work. We have heavy frosts and dry north winds. The soil in many places is getting almost too dry to work to advantage."

T. J. Stephens writes from San Joaquin connty: "There is considerable uneasiness felt in regard to the weather. This long dry spell is beginning to be felt by the early sown grain, and the soil is getting pretty hard for plowing. So far the season has been very favorable for putting in grain, and a large amount of land will be sown this winter."

HOW TO TREAT POTATOES.—Mr. John Woods says, in the Lompoc *Record*, and his experience runs through 25 years, that those having potatoes to ship to the city should haul them to the wharf, and unsack them and cover them well with straw. Let all the rain possible reach them, bnt keep the wind and sun away and they will keep fresh and sound until late in the winter. Mr. Woods gives it as his oplnion that the price will reach two cents per pound before the 1st of February. The sand at tbe beach is fine as a bed, because it takes up all the surplus moisture, preventing the potatoes from rotting because of too much moisture. Be sure and keep them from the sun and wind.

ADVIOES from Panama are to the effect that the gentlemen whom the civil and international society appointed to survey the Paya and Caeanla route for the inter-oceanic canal arrived at Aspinwall, and are making preparations to commence the survey as soon as the dry season sets in. The exploring party comprises representatives from the principal countries of Europe except Germany.

THE Spring Valley's water bill against the city has grown to about $230,000, because of the improvement of the public sqnares and the consequent increase in the amount of water consumed. Judge Dwinelle's decision in the $92,000 mandamus case will be rendered soon, and the case will doubtless be taken to the Supreme Court.

ONE of the workmen engaged in excavating in Sansome street, in front of the Bank of California, for a sewer, shoveled up a man's skull on Saturday.

Beekeepers' Convention.

We have formerly noted the proposal to form a district association of beekeepers in the Southern counties of this State. The matter has now assumed definite form and a day is set for a meeting. The following is received with request that it appear in the RURAL PRESS:

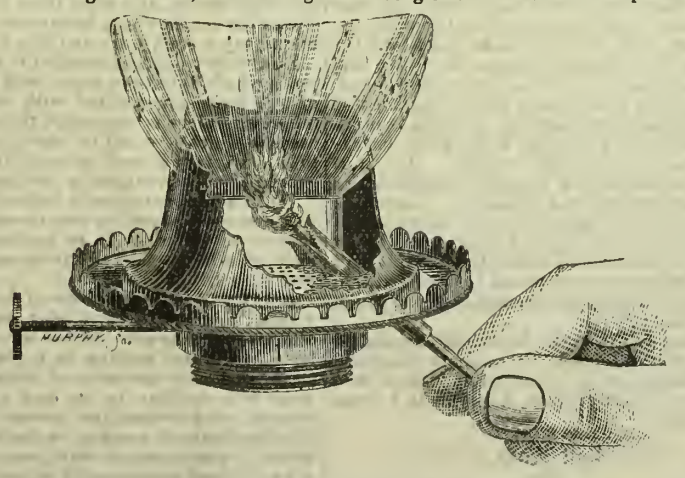
Apiculture is now assuming an important position among the various branches of industry of the country; so much so that a general co-operation of those engaged in it is necessary for the purpose of systematizing the honey trade and a more general development of apicultnral interest. After consultation with beekeepers in different parts of the country, it has been thought best in order to secure the above object to call a convention of the beekeepers of the leading honey producing counties of the State, viz.: San Diego, Ventura, San Bernardino and Los Angeles, with all others



THE CALIFORNIA CUCKOO.

that may see proper to participate; to be held at Los Angeles Thursday, Jan. 19th, 1877, opening at one o'clock P. M. It is earnestly hoped that remote counties, where it will not be convenient for many to attend, will at once organize associations and send delegates to represent them. It is hoped that the call will be responded to in a manner equal to the interest demanded.

BEET SUGAR IN FRANCE. — We read in a French letter that the sugar beet industry, like the plant's physiology, is in a confused state. Owing to the strange summer, and stranger



EXCELSIOR SELF-LIGHTING LAMP BURNER.

autumn, this year's beet harvest is compromised; the culture of the plant has diminished in its special districts by 30 and 50 per cent., so that one-half the factories are closed, or only working half time; not more than one-fourth of the total quantity of sugar will be produced this year, as compared with the preceding ones; fiscal difficulties have not a little to do with the result, but a short yield—ten tons per acre of roots, has also its influence. While some are advocating the cultivation of small roots for sugar purposes as being most suitable, the Eure farming society encourages the contrary by prizes. Again, high manuring has been hitherto accepted as lessening the percentage of sugar, and affecting the crystallization of the juice. Messrs. Champion and Pellet, from their careful experiments, conclude the opposite. Finally two celebrities, Claude Bernard and Coenninder, are of contrary opinions as to how the sugar and the salts localize themselves in the cells of the roots.

Personal.

We learn with deep regret of the death of John P. Bruck, of Los Angeles, well known to many of our readers for his writings in the PRESS on the snbject of beekeeping. A. J. Davidson writes an obitnary of Mr. Bruck, from which we learn that "he came to southern California about three years ago and very soon engaged in the business of keeping bees. At once he commenced a thorough investigation of this industry, and aided by his familiarity with European literature, gave us some very valuable information. At the time of his death he was President of the Los Angeles Beekeepers' Association, and it is but justice to say that by means of his executive ability we had many very pleasant and instructive meetings. He was a young man of fine social qualities, combining a cultivated mind and pleasing manners with a handsome person."

The editor has enjoyed calls dnring the week from two gentlemen who are doing good work in the interior on their respective newspapers. I. N. Hoag, of the *Record-Union*, who is a pioneer agricultnral worker and writer, gave us a full charge of rnral inspiration in his descriptions of his methods of observation and practice. Mr. Schuyler, local editor of the Stockton *Independent*, is in the city, serving his country on a United States jury. To his pen we are indebted for much interesting and valuable information which our readers find credited to the *Independent*.

We have had a pleasant call from Captain Harding of Sonoma. The Captain has some interesting experiences to relate of his progress in agricultnre. He is now commanding a pretty frnit ranch of 35 acres and, thongh he does not find the business productive of any great financial rewards, he will pursue it. Captain Harding does not believe in "large talk" about agricnlture, and his visit is to blame for the article on this subject in another column.

No efforts have been made this session in behalf of the Texas Pacific railroad bill, all special legislation yielding, for the present, to politics. The general feeling of the House is to adjourn at an early date until after the holidays, if the Senate will concur, or otherwise to meet and adjourn every third day, until the House investigating committee shall have returned from the South.

IT is almost conceded now that the British ship *British King* will never be heard from again. She was a fast sailer and is long overdue.

New Fruits and Flowers.

R. J. Trumbull, of 419 Sansome street, is the first of our city seedsmen to favor us with an annual catalogne of his stock and the novelties proposed. In his introductory remarks Mr. Trumbull alludes in vigorous words to the duty which belongs to all California cultivators to develop the productive resources of our State. He says: "The acknowledged snperiority of our prodncts shonld incite us to aim at still greater results. Our infant State has only begun to produce, and that our prodnctions take the highest rank for quality and value shonld be the aim of every Californian. There seems to be scarcely a limit to the variety of our productions, and whoever introduces to our State a new fruit, vegetable, or cereal, and cnltivates it successfully, adds materially to our wealth, and should have the gratitude of our people."

Fruits.

Of the wide adaptability which desirable fruits exhibit for the different regions of our State, Mr. Trumhull says: "There comes to us, at this writing, from the orchard of Col. Hollister, in Santa Barbara, a perfect specimen of one variety of the Japan persimmon—a fruit which is destined to become, ere long, popnlar both for home and foreign consumption, and from the same orohard as handsome and good a qnality of limes as the best imported. In our own yard, at San Rafael, we have a 'sweet Mediterranean' orange-tree, abont four feet high. This was brought from Garey's semi-tropical nnrsery at Los Angeles, last spring, and was planted in April. We have counted 20 oranges (now two-thirds grown) on this tree. That they will matnre we do not doubt. We have been offered $25 for this tree; yet, while we might replace it for $6 we would not part with it for $50. In the same village there have been picked, this season, from a tree in the grounds of one of our private citizens, lemons of as good a quality as find their way into our market. As far north as Gen. Bidwell's orchard, at Chico, we have heard of good oranges being grown, while from San Diego and Los Angeles come reports that bananas are maturing their fruit by out-door cultivation. There are still a thousand localities in California where these fruits will yet be successfully grown, and the end not yet, for other fruits, hitherto untried, will be introduoed here and find a genial home, to the pleasure and profit of their enterprising introducers. We have imported and are now experimentally growing a variety of the coffee-tree, which we feel sanguine will prove a success here. Will be able to say more about it in the future."

Flowers.

Mr. Trumbull's catalogue is very full in the line of flowers. To emphasize onr impression of this part of his treasures he sends us a selection of bulbs, which we shall test in our little window conservatory. We notice some of these bulbs are packed peonliarly. The bulb is surronnded with clayey earth and rolled in thin paper. The whole is then pressed and allowed to dry and become as hard and smooth as a goose egg. This encasement ensures the preservation of the bulbs. It makes them heavier and more bulky, and oonseqnently they are more expensive to lmport, but Mr. Trumbull informs us that the increased cost of transportation is willingly paid, because he finds he does not lose a single bulb thus packed.

We have not space to enlarge upon the variety of plants presented in the catalogne to which we refer, bnt one, the *Lilium Kramerli*, is new to this coast, and Mr. Trumbull's description is interesting. He writes: "Since the introduction of the beautiful *Lilium auratum*, nothing has been offered that will compare with this new and lovely variety. We are the first to introdnce it on this coast, and there is only one other house in the United States, that we are aware of, from whom it may be had. We have procured onr limited supply direct from Japan, and the bulbs, though smaller than most other varieties of lilies, are sonnd and in good condition. Mr. Thomas Hogg, who is considered good anthority on the flora of Japan, describes this lily briefly: 'Its general character is that of *Lilium longiflorum*, of which it may prove a variety, only its flowers, instead of being white, are of various shades of pink oolor. It will be an acquisition of no little merlt, owing to its beautiful shades of color.' From the Royal horticultural society of England, where it was exhibited last season, it received a first-class certificate. Mr. Kramer, the gentleman after whom it has been named, writes: 'Among them (the *Lilium Kramerli*) are some new and sterling varieties of all colors, from a pure white to a rich rose or mauve tint. When well cultivated it will make a charming lily.' In the mild portions of California this lily can be as successfully grown as the *Lilium auratum*."

Bull's Head.

EDITORS PRESS:—In answer to Mr. Berwick's letter from Monterey, I can only say at present, though the yards have now 60 horses, 251 head of beef cattle and 22 thoroughbreds, I am unable, with 12 carpenters and 14 men to reply. In another week I shall be able to give you full particulars, and in the meantime the "Bull's Head Live and Let Live Stock Yards" are a success, and are open for business and further improvement.—ROLLIN P. HAXE.

Continued from Page 395.

flaps, or pockets, on the under side of the abdomen, in the shape of small, white scales, which we can often see quite plentiful on the alighting board. These scales are taken off of each other by the bees themselves, and while it is in a soft, pliant consistency they make their combs, first forming the very thin sheet which serves as a partition between the two sets of cells.

If we would take the proper calculation of the value of honey, and the amount that a good busy swarm can gather daily, we will find it takes about 20 days for bees to fill their hives with the necessary amount of comb, which if clean will weigh one and one-quarter pounds. We have found, in some instances, when the honey harvest was good, that bees will collect and bring into their hives five to twenty pounds per day. I have known a good strong stock to gather 50 pounds in the long days of August, when the white and Alsike clover were in full bloom.

Now, dear readers, let us make a fair calculation in this matter, and we will find that at five pounds per day the bees will gather and store 100 pounds in 20 days. This, at 25 cents per pound, would be $25. Suppose we had plenty of nice combs in good movable frames, to have exchanged with our bees, as they filled up, in place of forcing them to build new, and using up the precious nectar in making combs, which to say the least would not be less than 50 pounds of honey. At the price named it amounts to $12.50; and now reduce this one-half, and we see very clearly that honeycombs are far more valuable than the wax that might be made from it, which sells at 25 to 35 cents per pound. The best yield that can be made from an ordinary class of old comb is a single pound of wax to one and one-fourth pounds of comb, which makes a difference against the wax of $6.25.

ARBORICULTURE.

Dig Your Tree Holes.

The nurserymen are now busily engaged in digging their trees and enlarging and diversifying their nursery stock by exchanges with each other and by purchase, so as to be ready to supply all orders when received. We have in this State now some as good nurseries as can be found anywhere in the world. The stock is as extensive and diversified, and the kinds as reliable, and certainly as well grown and thrifty. There will doubtless be a large number of trees planted the present season, as many of the older orchards, especially of peach trees, require renewing, and many of the old orchards will also be extended. Then there will probably be more small orchards planted in the grain growing districts than ever before. Farmers are learning that to raise wheat alone does not supply all the necessaries of the family, and to depend on buying their fruit and vegetables does not give a proper supply of a good article, and yet costs a great deal of money. They are determined to make a beginning in the orchard line, and very many of them will make that beginning this year. Knowing this to be the case, we will venture a suggestion in this connection. It is this: that the present year promises to be a dry one, and it therefore becomes the interest of those who propose to plant trees to take all the necessary precaution to give them all the advantage they can the first year. We would remind them that early planting is the most important thing they can do to secure this end. Trees should be planted this month if possible, as trees planted before the heavy rains always do much better, not only the first year, but having a good start in the beginning, keep that start for many years to come, and will make much more valuable trees always. If, however, you are not ready to purchase and plant your trees just now, do not neglect to do the next best thing, for this you can do at once, even though you have not the trees and do not get them for a month yet. We refer to digging the holes. Let this be done at once. If the ground be not wet down as deep as you wish to dig them, dig the holes now as deep as it is wet. When the rain does come it will then wet the bottom and sides of the hole more thoroughly for being open and exposed, and the dirt dug out will also be more thoroughly wet, and will receive the benefit of a good airing, and will absorb from the air a good supply of gaseous manure, and when placed about the roots of the tree will not only retain moisture but necessary nourishment much longer. Dig the holes from three to four feet in diameter, and not less than two and a half to three feet deep, placing the surface soil in one pile and the bottom soil in another. When setting the trees use the surface soil immediately about the roots of the tree and the bottom soil around the outer edge and in the bottom. We would emphasize this advice to dig the holes for trees now, for we know its advantages in this respect. Another advantage it will give you will be to get so much of the work of the winter out of the way. Then, too, it will help you in keeping your resolution to plant out an orchard. You will hardly want to fill the holes up again without filling them first with the trees you intended to put in them, so that by present action you will be strengthened to keep a good resolve.—*Record-Union.*

THE VINEYARD.

Raisin Drying on a Small Scale.

A correspondent of the *Call* gives some points on fruit drying, which may be of value to owners of small vineyards, who desire to dry a few raisins. He says: There is no doubt that the progress of raisin culture and curing is greatly retarded in this State by an erroneous impression that there is more difficulty in the operation than there really is. Raisin curing is but a modification of general fruit drying; and those of us who came from fruit growing and drying countries will remember that the process of drying fruit was a very simple one. Every farm that had an apple orchard and peach orchard furnished skill enough in the husbandman or housewife to contrive some means of drying at least fruit enough for family use, without any great outlay of money or any costly structure in the shape of a fruit dryer. But we have heard so much of extensive and highly scientific fruit dryers in this State, that we seem almost to lose our complement of common sense when we begin to think about the subject, and the more particularly when we begin to think about drying raisins. The great losses sustained by our raisin-makers, in consequence of the early rains this season, is confirmatory of this view of the case.

In their preparations of scaffolds or drying places for their raisins, they seem not to have taken into account the possibility of rain; and hence when the rain came they were unprepared for it, and, in consequence, lost their raisins. The losses from these rains have been estimated at from 25,000 to 30,000 boxes. Now, we have not the least doubt that, with but very little precaution, and with probably less actual expense in the construction of drying scaffolds and houses, nearly all these losses could have been avoided, and we could have put into the market 40,000 boxes of good raisins instead of 10,000. A fruit-drying scaffold in the Atlantic States, where rain in the fall of the year two or three times a week is almost of sure occurrence, is a very simple and yet a very effective thing—effective both in drying the fruit and preserving it from the rains. Such a scaffold generally consists of crutched sticks set in the ground, and two straight rails or scantling laid in the forks so as to be parallel to each other at such a distance apart that from 12 to 16-feet boards can be laid across them. The boards are then laid on, and the fruit spread upon them. As each board is filled, another one is supplied, and the scaffold is extended as desired. When it is likely to rain, a short block is laid across one of the boards at each end and in the middle, and the next board is raised from the scantling and laid upon these blocks, and thus the fruit on the first board is covered from the rain. Then blocks are laid on the top board, and another lifted and laid on these blocks, and so on, till the boards are piled as many deep as is convenient, and then a light roof of two or three boards, projecting out over the boards containing fruit, is placed over all, and the fruit is kept dry. When the shower is over, the pile is taken down and spread out again on the scaffold, and the drying process goes on, the sun supplying the heat. We venture the assertion that if this mode of drying raisins had been generally adopted in this State, this season, there would not have been one box lost, where, under more costly and complicated plans, ten were lost. To make safety doubly sure, the raisin dryer, in connection with this scaffold, might have a cheap house constructed, after the style of our cheap hop-drying houses, and appliances for heating in a similar manner—provided with places for holding the boards composing this outside scaffold. Then, in case of continued rain towards the opening of the rainy season, and when his raisins are nearly cured, the farmer could remove them to this building and apply his heat, and finish them up. This would secure the advantage of a slow drying process, which is a necessity in the case of raisins, and a certainty of protection against rain.

We know of those who have made a splendid success with the simple means above described in making raisins this year, while others, who had gone to great expense, have made a complete failure.

Fall Work.

We are not an advocate of early pruning for grapevines, for the reason that such pruning tends to hasten the swelling of the fruit buds and thus expose them to late spring frosts. In the management of large vineyards, however, it is almost impracticable to do all the work that should be done in the spring after the danger from frost has passed. The great bulk of the pruning and the packing of the cut-off vines out of the vineyard may be done now, and yet the fruit buds held in check till the danger has gone by. In this work unskilled labor may be employed, and thus the work greatly economized. Take such labor and go through the vines, cutting off all the old and dead wood, and all the smaller and less vigorous canes, leaving untouched or uncut all those you design for fruit this year. These canes may at the same time be laid along in the rows of vines, so that they will not interfere with the work of plowing and cultivation. Then the vineyard may be cleaned of all the wood and brush cut off and the plow set at work immediately if desired. The vineyard will then be ready to be laid aside till the fore part of April. We never have had a frost later than the 6th of April. About this time, then, the balance of the pruning may be completed with comparatively little labor, and the whole work will be done in the cheapest and the best manner, and all danger from frost will thus be avoided.—*Record-Union.*

USEFUL INFORMATION.

Good Roadways.

We are not aware that any system of road making where proper materials are available, is superior to the old method of McAdam. The following are the directions prepared by Mr. McAdam, and will doubtless be of value to many readers:

Stone is to be procured in some form in almost every part of the country, and a road made of small broken stone to the depth of ten inches, will be smooth, solid and durable.

The size of stones for a road should be that of a hen's egg, or a half a pound weight. It must be in due proportion to the space occupied by a wheel of ordinary dimensions on a smooth level surface: this point of contact will be found to be longitudinally, about an inch; and every piece of stone put into a road which exceeds an inch in any of its dimensions, is mischievous.

In repairing an old road no addition of materials is to be brought upon it, unless in any part it be found that there is not a quantity of clean stone equal to ten inches in thickness.

The stone already in the road is to be loosened up and broken, so that no piece shall exceed six ounces in weight. The road is then to be laid as flat as possible; a rise of three inches from the center to the side is sufficient for a road 30 feet wide.

The stones, when loosened in the road, are to be gathered off by means of a strong, heavy rake, with teeth two inches and a half in length, to the side of the road, and there broken, and on no account are stones to be broken on the road.

When the great stones have been removed, and none left in the road exceeding six ounces, the road is to be put in shape, and a rake employed to smooth the surface, which will at the same time bring to the surface the remaining stone, and will allow the dirt to go down.

When the road is so prepared, the stones that have been broken by the side of the road are then to be carefully spread on it—not to be laid on it in shovels full, but scattered over the surface, one shovel full following another, and spreading over a considerable space.

Only a small piece of road should be lifted at once; five men in a gang should be set to lift it all across. Two men should continue to pick up and rake off the large stones, and to form the road for receiving the broken stone, the other three should break stones—the broken stone to be laid on as soon as the piece of road is prepared to receive it, and then break up another piece; two or three yards at one lift is enough.

The proportioning the work among five men must of course be regulated by the nature of the road; when there are many very large stones, the three breakers may not be able to keep pace with the two men employed in lifting and forming, and when there are few large stones the contrary may be the case; in all this the surveyor must judge and direct.

But, while it is recommended to lift and relay roads which have been made with large stone, or with large stones mixed with clay, chalk or other mischievous materials, there are many cases in which it would be highly unprofitable to lift and relay a road, even if the materials should have been originally too large.

When additional stone is wanted on a road that has consolidated by use, the old hardened surface of the road is to be loosened with a pick, in order to make the fresh material unite with the old.

Every road is to be made of broken stone, without mixture of earth, clay, chalk, or any other matter that will imbibe water and be affected with frost; nothing is to be laid on the clean stone on pretence of binding; broken stone will combine by its own angles into a smooth, solid surface, that cannot be affected by vicissitudes of weather, or displaced by the action of wheels, which will pass over it without a jolt, and consequently without injury.

Flint makes an excellent road, if due attention be paid to the size; but, from want of that attention, many of the flint roads are rough, loose, and expensive.

Limestone, when properly prepared and applied, makes a smooth, solid road, and becomes consolidated sooner than any other material; but from its nature is not the most lasting.

Whinstone is the most durable of all materials; and, wherever it is judiciously and well applied, the roads are comparatively good and cheap.

Peat Manufacture.

At a meeting of the English society of engineers a paper by Mr. Charles E. Hall, "On the Conversion of Peat into Fuel and Charcoal," was read. The *Colliery Guardian* says: The author stated that his object was to place on record the cost and value of peat fuel, and charcoal, to describe the best machinery and processes for producing them, and to draw attention to the superiority of ground charcoal for dust fuel in many metallurgical operations. The author first noticed the difficulties attending the working and manipulation of peat in its crude state, and briefly explained why certain methods of treatment had proved failures, and, by samples, pointed out the superiority of the system of condensation over that of compression. He then described the Lead company's peat works at Middleton-in-Teesdale, showing the lowest cost at which peat fuel can be made under favorable circumstances, and giving the cost of working and production per ton for the last four months. The author referred at considerable length to the drying difficulty, and made some suggestions for the improvement of the process, showing the fallacy of artificial drying. A new system—or rather an improvement on the existing system—of condensation designed by the author and Mr. Bainbridge, illustrated by diagrams and working models, was next brought before the notice of the members. The author described this operation as condensation by freely bleeding the peat, and this was stated to be very effectively done by the machine described, the samples showing how thoroughly the fibers had been cut up and disintegrated. This improved machine is intended for the production of the densest charcoal, fit for any metallurgical operation. Samples of finely-powdered charcoal, suitable for iron founder's blacking, were exhibited, also samples for sanitary and agricultural purposes. The continuous peat carbonizing process was explained by the author, and a cost sheet, showing the probable cost of manufacturing charcoal on a large scale, was given. A novel construction of common fire-grate, suitable for economically burning peat or other light fuel, was also described.

DON'T WORRY ABOUT YOURSELF.—The *Journal of Health* says: To regain or recover health persons should be relieved from anxiety concerning diseases. The mind has power over the body. For a person to think he has a disease will often produce that disease. This we see effected when the mind is intensely concentrated upon the disease of another. It is found in the hospitals that physicians and surgeons who make a specialty of a certain disease are liable to die of it themselves; and the mental power is so great that sometimes people die of diseases which they only have in imagination. We have seen persons sea-sick in anticipation of a voyage, before reaching the vessel. We have known a person to die of a cancer in the stomach when he had no cancer, nor any other disease. A man, blindfolded and slightly pricked in the arm, has fainted and died from believing that he was bleeding to death. Therefore, persons in health, and desiring to continue so, should at all times be cheerful and happy, and those who are sick should have their attention drawn as much as possible from themselves. It is by their faith men are saved, and also by their faith that they die. If a man wills not to die he can live in spite of disease; and if he has little or no attachment to life, he will slip away as easily as a child falls asleep. Men live by their souls and not by their bodies. Their bodies have no life of themselves; they are only resources of life—tenements of their souls. The will has much to do in continuing the physical occupancy or giving it up.

DIPHTHERIA SUCCESSFULLY TREATED.—Dr. E. Chenery, M. D., Boston, Mass., cites a very large number of cases, 158 within his own practice, saved by the use of hyposulphite of soda. The dose of the hyposulphite is from five to 15 grains or more in syrup, every two or three hours, according to age and circumstances. It can do no harm, but if too much is given it will physic. As much as the patient can bear without physicking is a good rule in the severer cases. The tincture can be used in doses of five drops to a half drachm in milk. The amount for thorough stimulation is greater than can be taken in water. Usually give it in such doses as can be easily taken in milk, using the milk as food for small children. One fact, however, needs to be borne in mind, namely, the hyposulphite prevents the digestion of milk, and should not be given in less than hour from it. They may be used alternately, however, without interference, in sufficiently frequent doses. Judging in this disease as I judge in others, I am fully persuaded that the treatment I have so long used, and which has not failed me yet, will save nearly every case of diphtheria if seasonably and vigorously employed, and there is no reason why it should not do as well in the hands of others as in my own. In none of my cases have I used any alcohol.

TIGHTENING NUTS.—The English *Mining World* says: It is well known to engineers that considerable danger and inconvenience arises from the loosening of nuts, and their falling off the bolt through the vibration of the machinery or plant in which they are placed. Mr. Periam, of Birmingham, has taken out a patent, which is intended to obviate this difficulty, by cutting one, two or four slits longitudinally through a portion of the end of the bolt on to which the nut is screwed, which slits are enlarged after the nut has been screwed on, by means of a chisel-pointed tool. When the nut has to be removed, there is no difficulty in exercising the necessary force by means of a spanner or screw wrench. It will be seen that with this arrangement there can be no possibility of the nut shaking off, and the inconvenience and damage incident to such an accident are avoided.

Action of Alcohol on the Brain.

Mr. C. T. Kingzett read a paper before the British Association for the Advance of Science "On the Action of Alcohol on the Brain." He said the question of what became of alcohol taken into the system had been extensively studied. Thudichnm was the first to determine qnantitatively the amount of alcohol eliminated by the kidneys from a given qnantity administered, and the resnlt he obtained was sufficient to disprove the elimination theory then widely prevailing. Dupre and many others continned these researches, from which, according to Dupre, they might fairly draw three conclusion: 1st, that the amount of alcohol eliminated per day did not increase with the continnance of the alcoholio diet; therefore all the alcohol consumed daily mnst of necessity be disposed of daily, and, as it was certainly not eliminated within that time, it must be destroyed in the system; 2d, that the elimination of alcohol following the taking of a dose was oompleted 24 hours after the dose was taken; and 3d, that the amonnt eliminated in both breath and nrine was a minute fraction only of the amonnt of alcohol taken. In 1839 Dr. Percy published a research on the presence of alcohol in the ventricles of the brain. and, indeed, he concluded, "that a kind of affinity existed between the alcohol and the cerebral matter." He further stated that he was able to procure a much larger proportion of alcohol from the brain than from a greater quantity of blood than conld possibly be present within the cranium of the animal upon which he operated. Dr. Marcet, in a paper read before the British Association in 1859, detailed physiological experiments which he considered to substantiate the conclnsions of Dr. Percy, inasmuch as they demonstrated that the alcohol acted by means of absorption on the nervous centers. Lallemand, Perrin and Duroy had, moreover, snccoeded previonsly in extracting alcohol from brain matter in cases of alcoholio poisoning. But all these researches left them entirely in the dark as regarded the true action, if any, of alcohol on cerebral matter, and no method of investigation was possible until the chemical constitution of the brain was known. Thudichum's researches in this direction, together with some more recent and published investigations by Thudichnm and the anthor, had placed within reach new methods of inquiry regarding the action of alcohol on the brain. In his research he (Mr. Kingzett) had attempted this inquiry by maintaining the brains of oxen, at the temperature of the blood, in water, or in water containing known amounts of alcohol. The extracts thus obtained had been studied in various ways, and submitted to qnantitative analysis, while the influences exerted by the various fluids on the brain had been also studied. These influences extended in certain cases to hardening and to an alteration in the specific gravity of the brain matter. Water itself had a strong action on brain matter (after death), for it was capable of dissolving certain principles from the brain. These principles inclnded cerebrine, myeline, and apparently a new phosphorized principle insoluble in strong alcohol, together with that class of substances generally termed abstractives. At the same time the brain swelled and attained a smaller specific gravity; thus, in one case, from 1,036 it became 1,007. It was notable that water, however, dissolved no kephaline from the brain. Alcohol seemed to have no more chemical effect on the brain than water itself, so long as its proportion to the total volume of finid did not exceed a given extent. The limit would appear to exist somewhere near a fluid containing 35 per cent. of alcohol. But if the percentage of alcohol exceeded this amonnt, then not only a larger quantity of matter was dissolved from the brain, but the matter included kephaline. Snch alcoholio solution also decreased to abont the same extent as water the specific gravity of brain snbstance, but not from the same canse; that was to say, not merely by the loss of substance and swelling, but by the fixation of water. Many difficulties surrounded the attempt to follow these ideas into life, and to comprehend in what way these modes of action of water and alcohol on the brain might be influenced by the other matters present in blood. From Thudichnm's researches it followed that the brain mnst be subject to every influence affecting the blood, and it was probable that what was written above regarding the action of water on the brain was likewise trne of an extraordinary water sernm in life. But if the serum were rich in salts, those salts, by a power of combination which they had for the cerebral principles, would preserve the integrity of the latter. On the other hand, it was difficnlt to see how any of the matters known to exist in the blood conld prevent alcohol, if present in sufficient amount, from either hardening the brain (as it did after death) or dissolving traces of the principles to be henceforth carried away in the circnlation; that was to say, shonld physiological research confirm the stated fact that the brain in life absorbed alcohol and retained it, it wonld almost follow of necessity that the alcohol wonld act as he had indicated, and produce disease, perhaps delirium tremens.

THE entire coffee crop of the world last year was 900,000,000 pounds, fully one-third of which was consumed in the United States.

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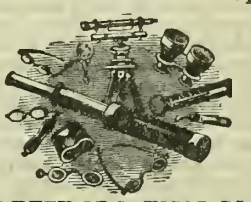
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The Gulf of California

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The Gulf of California Oyster Company.

The above company is an institution just organized to develop a comparatively new interest among us, and is destined in all probability to become a very useful organization. The California oysters are, as is well known, quite inferior, and the Eastern oysters are very expensive, while the bivalves which exist in such numbers in the Gulf of California are of splendid quality, large size and inexhaustible in quantity. This company has been organized for the purpose of supplying our market with oysters, and it is intended to go to work on a large scale to carry out the project.

Thus far the oyster most esteemed in the United States is found on the coast of Virginia. It exists in large numbers in Chesapeake bay, and the same species is sometimes found in the vicinity of Boston and also at the river St. Lawrence. Another species is called the northern oyster, which finds the largest sale in New York. The main sources of supply are the Chesapeake bay, the coast of New Jersey and Long Island sound. The wholesale trade of New York alone is estimated at $25,000,000 a year, and that of Chesapeake bay is probably nearly as great. These figures will throw some light on the importanee of the projeot of the new company. The supply in the Gulf of California is very large, and the oysters exceptionally fine. The difficulty heretofore has been proper means of transportation, so that the field has been neglected. With the completion of the Southern Pacific railroad to Fort Yuma, however, this difficulty is removed. The company will have canneries on the spot, employ cheap Indian labor for gathering the oysters, and 200 or 300 of California boys for canning and packing. It will also have an ice manufactory on the ground and own vessels for shipping the oysters from the gulf to Fort Yuma, taking return freights.

In order to give the best effect to the operations of the company, the arrangements will be very complete. It is expected that the Southern Pacific railroad will connect with Fort Yuma in the early part of next year, when tank and refrigerator cars will be provided for shipment of fresh oysters. A line of boats will bring the oysters from the gulf to the Fort in 48 hours, and 50 hours more will transport them by rail to this city. For greater convenience temporary beds will be made at the month of the Colorado river, where the cargoes of boats from the gulf will be left, to be again taken up immediately before the departure of a train, so that they will arrive in San Francisco 50 hours after being taken from the water. Several beds ot the oysters will also be made in San Diego and San Francisco bays, where it is confidently believed they will rapidly breed. Canned oysters will form a great specialty of the company, and cannot fail to be highly remunerative. There will be a market for these oysters in Eastern cities and in London, where the consumption will be large and constant enough to absorb all the supplies which can be sent from this coast. Another branch of the business will be drying coarser varieties of oysters for the China trade.

The officers of the company are A. Blacklock, president; Don Ramon Jose Gonzales, vice-president; William S. Manning, secretary and S. J. Prisglove, treasurer. Before incorporating, the officers thoroughly informed themselves on the breed of oysters in the Gulf of California, purchased rights from the Mexican government for the exclusive use of the beds, entered into arrangements for securing all appliances for canning as well as for the purchase of an ice manufacturing machine of Senator Jones' patent; provided for the charter of boats to carry oysters to Fort Yuma, and had an understanding with the railroad authorities in regard to transportation.

Via Cape of Good Hope.

One of the daily papers makes the following mention of the new route for vessels from Liverpool to this port: The practicability and advantage of the Cape of Good Hope route hither from Liverpool, over the Cape Horn passage, is again brought to the point of discussion by the experimental voyage of the British iron ship *Wasdale*, Captain Bley, which arrived here yesterday from Liverpool via the Eastern cape. Captain Bley's passage was made in 136 days, but he claims that the breezes were unusually light and baffling, and that a fair average passage for his ship by that route would be 116 days. The average passage for such ships as the *Wasdale* around Cape Horn is 120 days. Captain Bley sets forth that the eastern passage is preferable by reason of favoring gales that prevail from May to September, and not only good time can be made, but a material saving in wear and tear of the ship and rigging is to be taken into consideration. The distance from Liverpool to San Francisco by way of Cape Horn is 16,000 miles; by the eastern passage, 23,000. Of course the passage hence must be made by Cape Horn for the same reason of favoring breezes. Captain Bley is assured that a good number of British ships will reach here next season by the Eastern cape and return round the Horn.

F. A. Seabury, who was in Belmont, Nye county, Nev., in 1867-9, when last heard from, will learn of something of importance by calling or addressing the Press office, 224 Sansome street, San Francisco, Cal. Any information concerning Mr. Seabury's whereabouts will be thankfully received.

Patents & Inventions.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[From Official Reports for the Mining and Scientific Press, DEWEY & CO., Publishers and U. S. and Foreign Patent Agents.]

For Week Ending November 28th, 1876.

Burglar-Alarms.—John P. Everetz, S. F.
Miter Machines.—Allen H. Putnam, Oakland, Cal.
Explosive Compositions.—Charles De Lacy, S. F.
Pile Drivers.—Richard Hillyer, S. F.
Tap and Faucet.—Antone Pfeiffer, S. F.
Axes.—John O. Rollins, Truckee, Cal.

Trademarks.

Gentlemen's Shirts and Underwear.—Percy Beamish, S. F.
Soap.—Albert Meu & Co., S. F.

For Week Ending December 5th.

Combined Hose-cart Reel and Irrigator.—Edward J. Delaney, San Jose, Cal.
Devices for Pulling Piles and Posts.—Richard Hillyer, S. F., Cal.
Clamps for Wire Ropes.—Henry R. Taylor, S. F., Cal.
Car Trucks for Prismoidal Tracks.—Edward B. Dorsey, S. F., Cal.
Rulers.—Charles M. Hays, Silver City, Idaho.
Envelopes.—Levi J. Henry, S. F., Cal.
Clamps for Holding Hand Rail Wreath Pieces.—Christopher Lamb, S. F., Cal.
Spring Bed Bottoms.—Ambrose J. Lattin, Alvarado, Cal.
Mining Riffles.—August Mann, Big Oak Flat, Cal.

Re-issue.

Vehicle Seats.—Frederick Oppenheim, S. F., Cal.

———*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

Note.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

Notices of Recent Patents.

Among the patents recently obtained through Dewey & Co.'s Scientific Press American and Foreign Patent Agency, the following are worthy of mention:

Fruit and Berry Boxes.—Chas. W. Weston, S. F. The peculiar class of fruit and berry baskets or boxes to which this invention relates, are made of thin wood shavings or veneers. The most common method of constructing these boxes is to take two strips of veneer of proper width and cross their middles so as to form the bottom of the box. The four ends are then turned up to form the four sides of the box, and a metallic binding stiffens and preserves the proper shape of the boxes. Heretofore boxes of this class have only been made in small sizes for containing one or two pounds of small fruit, such as berries, etc. The reason of this was that the manufacturers, even in constructing the small boxes referred to, persisted that the metallic binding rim must be made in one continuous piece in order to give the boxes the requisite strength and durability, and they therefore purchased tin in the sheet in order to be able to cut out single strips of sufficient length to encompass the entire top of the box. Mr. Weston has discovered, however, that he can employ any number of short strips of sheet metal for binding, not only the small boxes, but that he can also manufacture large boxes or baskets capable of containing large fruit, and at the same time render them sufficiently rigid and durable. This enables him to make small boxes cheaper than heretofore, because he can use certain kinds of scrap tin—the refuse of tin shops—for the binding straps; and it enables him also to produce as a new article of manufacture, large baskets or boxes made in this way.

Tap and Faucet.—Antone Pfeiffer, S. F. This patent embraces certain improvements in that class of faucets and taps which are intended to be permanently secured in the head of a barrel, and are provided with a valve which is opened by the aid of the faucet introduced to the tap and through which the liquid is to be drawn. These taps, as usually constructed, have various forms of valves, most of which have screw threads upon the outside, so that after the faucet has been screwed a part way it will take hold of the valve and open it (either by screwing it inward or outward) by the time the faucet has reached its seat, while the latter must be carefully protected from leakage by closely fitting packing. This invention consists in the employment of a tapering plug ground to fit the inner end of the tap, with its large end toward the interior of the barrel, while its small end is provided with a lug or lugs, which fit into a slot made transversely in the end of the faucet. The faucet is pushed directly to its place and is secured by a gland surrounding it and screwed into the tap, making a tight joint by pressing an elastic washer against a nut or shoulder within the tap. Holes are made in the plug and in the sides of the tap and when the faucet is turned a little it opens a passage in the manner of an ordinary faucet.

Baling Press.—A. D. Miller, Sacramento. This invention relates to certain improvements in baling presses for hay and other materials, and it comprises the compression of the bale rapidly and powerfully by means of a double fusee in combination with pulleys and rope wheel; a novel means for locking and unlocking the doors of the press; and a method of making the bale perfectly true and rectangular and for releasing it easily from the press after it is secured. It also comprises means for compressing the bale at the points where the rope, wire or other confining device encircles the bale, so that when it is removed from the press it will not spring and become too large. There are several other devices covered by the patent.

Feeder for Threshing Machines.—William Hutchings, Fresno, Fresno county. This invention relates to an improvement in that class of feeders for threshing machines in which reciprocating bars or arms are used, these arms being provided with teeth or projections, and having a reciprocating or curvilinear motion within the trough or shute which leads to the threshing cylinder, so as to force the straw forward to the cylinder. The invention consists in the use of four slides, which are secured together in pairs, having spikes or fingers upon their upper surfaces. These slide forward and back upon the floor of the incline, one pair upon one side and the other on the opposite side of the inclined trough, thereby feeding the straw by a series of alternate movements at one side and the other of the trough, which is the most important feature of the improvement, as it renders the feeder a success over those which simply employ a series of bars extending across the trough and moving alternately. The bars pass through a vertical partition in the rear, and are connected with operating cranks from the rear, so that the floor is not perforated and will not waste grain. In combination with this device Mr. Hutchings employs a series of arms which project from a horizontal shaft just above the mouth of the machine, and these arms are arranged in a spiral form about the shaft, so that one end of the spiral will enter the mass of straw and assist it forward while the slides at that side are being withdrawn, while the other end of the spiral will operate as the other pair are withdrawn. The operation of this feeding device is as follows: The straw is fed into the trough, where the slides with their fingers force it forward, the pair on one side serving to move it downward while the other pair are being drawn back. The action is a vibrating one, the mass of straw being pushed forward at one end and then at the other. The fingers, from their horizontal positions, are easily withdrawn when the slides are drawn back, and never pull the straw back or stop it; and the rotation of the spirally arranged arms is so fixed that those on each pair of slides will take hold of the straw when the slides are drawn back, thus assisting in the feeding. By the method of operating the slides in two pairs the straw will be easily fed forward, as there is no necessity of pulling it apart and separating the fibres, as would be the case if a system of slides were used and every alternate one moved forward while the others moved back.

Improved "Gag Runner."—William M. Blain, Salinas City, Monterey county. This invention relates to a novel construction of a gag runner and a brow band loop for harnessing in one piece, which may have an ornamental rosette attached to it or not as may be desired. The check-rein passes through a metallic loop at the inner end, which loop is gradually flattened out, and at the end of this flattened portion a loop is turned up to receive the brow band. These loops are all made in one piece, of malleable iron, and may be used without any additional part. If, however, it is desired to attach a plate to the device, the plate may be made with projecting flanges, between which the flattened portion slides and is held in place by means of a shoulder upon its back. By this means the inventor is enabled to form the two loops in one piece, and when the plate is used it may be made without the usual loop, which is to be soldered or otherwise made fast to it.

Pile Extractor.—Richard Hillyer, S. F. This is a device for pulling wooden piles and other wooden beams or timbers, such as are driven into the ground to serve as a support for wharves and other structures. When a wooden pile breaks off below the surface of the water it becomes dangerous to shipping, and, as an obstruction, requires to be removed; and being entirely submerged, it is often difficult to find its exact position, in order to attach a gripping device, so that it can be pulled out. This improved gripper is so constructed that it is also a feeler for finding the pile.

Window Sash Balance Stop and Lock.—B. M. Whiting, Los Angeles. This is an arrangement of coiled springs inside of boxes, which are inserted inside of the window casing for raising and lowering the windows instead of the ordinary sash cord, weight and pulley. A small attachment to the same device serves to lock the sashes in any position to which the sash is raised, either up or down. The device is quite simple, inexpensive, neat and convenient.

Miter Machine.—A. H. Putnam, Oakland. This invention is an improved machine for cutting miters and bevels, and consists in a combination of arrangements and devices difficult to describe without the aid of engravings.

The attendance at the Moody meetings in Chicago is steadily on the increase, instead of falling off, as was anticipated with the severe weather. The temperance meetings especially are largely attended.

Woodward's Gardens embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

General News Items.

The Spanish Cortes has passed a law making education obligatory.

Cardinal Simeoni has taken the oath of office and entered on his duties as Antonelli's successor.

Alfred Ver Mehr, the defaulting clerk of Parrott & Co., has arrived from Mexico in charge of a detective.

M. Abbadie, who had accumulated a fortune of $4,500,000 through the manufacture of paper for cigarettes, died recently in France.

E. A. McCullough has been appointed Revenue Storekeeper of the First District of California.

The New York *World* says that more than 30 vessels are ashore near Sandy Hook because of the late fearful gale.

The Oxford University rowing club has declined the challenge of the Yale and Cornell clubs to a four-oared race on the Thames next August.

The block bounded by Brannan, Third, Townsend and Fourth streets, where the great fire raged in August, is being rebuilt. The car-houses and stables of the Bay View and Potrero company are being built of brick, with corrugated iron roof. These buildings, three in number, are to be as near fire-proof as possible.

A Berlin dispatch says, the fact that the Russian government does not prohibit private meetings to promote the purchase of American vessels, to be used as privateers in case of war, is creating much comment among German ship-owners, who, being largely engaged in the carriage of Russian merchandise, fear the ruin of their trade if England should ever be compelled to resort to reprisals.

The People's and Grangers' Immigrant Bureau, 40 California St.

This institution, according to reports published in the daily papers, has provided situations free of charge for more than 6,000 applicants, and furnished 7,000 persons in search of lands for settlement with letters of introduction to prominent citizens in the interior. The services of the bureau are entirely free to all, as it is supported by subscription. It is just what we need in California, and should be supported. Orders for help will be filled free of charge to either employer or employee. Send them in. Hundreds of immigrants are waiting for them.

To the People's and Grangers' Immigrant Bureau, 40 California street, S. F.

Gentlemen:—I see by a notice in the Pacific Rural Press that you have many applications from persons wishing to purchase lands. I offer for sale ninety acres of the Mount Pleasant ranch, situated on the turnpike road between Auburn and New Castle, Placer county, being two miles from Auburn and one mile from New Castle. Both places are on the C. P. R. R., and have Express office, Post-office, etc., and are good shipping points for produce over the mountains. About twenty-five acres of said land are under improvement; two acres in Berries, a few choice Grapevines, and a few fruit trees in bearing. The soil is from three to eight feet deep and well adapted to the growing of all kinds of Fruit, Grain or Alfalfa. Good facilities for irrigating from Bear River ditch. This is one of the best fruit sections in the State, large quantities of all kinds being shipped from here daily during the Summer season. The purchaser will be given house and barn room free until he can build. Reference may be made to the Postmaster at New Castle or Auburn, or to C. T. Adams, New Castle, who owns land adjoining mine. Title, U. S. Patent. My reason for wishing for wishing to sell is old age and inability to labor. Price, $1,800. James Munsell, Sr.

Apply to JAMES MUNSELL, Jr., 224 Sansome St., San Francisco, Cal.

There are many persons who do not know how to stop a newspaper. They are more awkward about it than a country boy stealing his first kiss. The way to do it with satisfaction to both sides is to address the publisher by letter if you do not live near enough to call at his office. It is no way to notify the postmaster or some one else. Four postmasters in three will fail to notify the office of publication. They look upon it as your business more than theirs. The right way is as genteel and pleasant as the other is suspicious and shabby. If you owe for a few weeks or months over time, tender the amount due. It is a little thing, but it will be a great satisfaction to your conscience, as every one is presumed to have one of some kind. Stop your newspaper like a man, and your own self-respect and the esteem of the publisher is maintained. Then you can always look him in the eye or take him by the hand, and he will feel proud to think you were once one of his most gentlemanly patrons, and wish you would subscribe again.—*Exchange.*

Good Printing Ink.—We prefer Chas. Enen Johnson's printing inks, having used them on this paper for the past four years. H. S. Crocker & Co., printers, stationers, blank book and paper dealers, are Johnson's S. F. agents.—Dewey & Co., Publishers.

Any Person receiving this paper after giving an order to stop it, may know that such order has failed to reach us, or that the paper is continued inadvertently, and they are earnestly requested to send written notice direct to us. We aim to stop the paper promptly when it is ordered discontinued.

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S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Wednesday, Dec. 13, 1876.

The fears of a dry season are beginning to be taike1 in city commercial circles, bnt apprehensions do not lift tha weight of some kinds of Prodnce which is now offered. The market is, however, quite strong beneath the load and exports are removing the surplus. The Wheat demand has lagged a little during the week, bnt holders are firm, and yesterday the cable exhibited a further advance. Notes on special articles of Prodnce will be fonnd below.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	Cal. Average.	Club.
Thursday.....	10s 10d@11s 1d	11s 1d@11s 3d
Friday.....	10s 11d@11s 2d	11s 2d@11s 6d
Saturday.....	10s 11d@11s 3d	11s 2d@11s 6d
Monday.....	10s 11d@11s 3d	11s 2d@11s 6d
Tuesday.....	10s 11d@11s 3d	11s 1d@11s 6d
Wednesday....	10s 11d@11s 3d	11s 1d@11s 8d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	9s 10d@10s 2d	10s 4d@10s 7d
1875.....	10s 8d@11s —	11s —@11s 6d
1876.....	10s 11d@11s 3d	11s 1d@11s 6d

The Foreign Review.

LONDON, December 11th.—The *Mark Lane Express* says: The commencement of the week has been marked by violent gales, which it is fesred damsged the young Cereal crops on the higb lands. However, appearances continns promising in Scotland. Agricultursl operations have been much retarded by the rainy weather. Probably a large average of Wheat has been sown throughout the United Kingdom this yesr, owing to ths favorable seed time. The dampness much interfered with tbreshing, and much of Home is again offering in a poor condition, but English Wheat, both in London and the country markets, has advanced nearly two shillings per qusrter. Foreign also met with large inquiry at the ssme improvement. The fact that snpplies are really sbort is forcing itself on the minds of buyers, who have been deceived, because there are two million quarters on passage, not thinking that it would not all come for five or six months. The activity in trade has been considerably due to the marked falling off in imports of Amarican Wheat, the arrivals being less than 3,000 quarters, and the stoppsge of St. Petersburg supplies, and it was on these descriptions tbe demand chiefly fell. It appeared likely that an increased activity and even excitement may be felt in trade before this year closed. The increased demend for Rnssian sorts will probably speedily follow the present demand for Red American, because no further shipments can take place from St. Petersburg, and a marked diminution on shipments from Odessa is expected. Maize advanced sixpence to ninepence, and there is a probsbility of higher prices, owing to increased Continental demands, diminished shipments, and higher prices in Americs.

Freights and Charters.

The stock of disengaged tonnage, says the *Post*, has been replenished during the week by free arrivals of deep water vessels. Coming, too, at a time when the freight market is in a depressed condition, the effect has been to still further lower rates. Several vessels engaged under home charters at £3 5s for Wheat loading, prior to arrival, six mon ths ago, have turned up beyond their limited time, and their charters have thus been canceled. At present, with a rising Wheat market, it is extremely difficult to give rates. The latest engagements were effected at £2@£2 5s, as extremes. Outside business is still eagerly sought after by owners and consignees who are not disposed to accept the above. We have now in port 41,027 tons of tonnage secured for Wheat and 5,419 tons for miscellaneous purposes. The list of disengaged tonnage foots up 42,214 tons. The Wheat engagements of the week were as follows: German bark Fnida, 939, Wheat to Cork; bark Edwin Reed, 1,216, Wheat to Liverpool, Havre or Antwerp, £2 5s; Br ship Sheoir, 1,229, Wheat to Liverpool; Ship Continentel. 1,681 tons, Wheat to Liverpool, prior to arrival, £3 5s; Br ship Agnes Oswald, 1,450, Wheat to Liverpool, prior to arrival, £3 2s 6d; Ger bark Germsnia, 889, Wheat to Greet Britain, prior to arrival, private; Br ship Rsmington, 990, Wheat to Liverpool, £2 6s; French bark Quillota, 722, to load Wheat to Belle Isle, for orders, on owners' account; Br bark Ella Nicol, 475, Wheat to Cork, U. K., £2 6s.

New York Grain Market.

NEW YORK, December 10th.—The export trsde in grain has been held in check by the ecarcity of tonnage and an advance in freighis, which, with the decline in gold and exchange, has turned margins against shippers, cable reports being rather tame. Spring Wheet has sold at $1.25@1.38 for graded lots, but the highest figures of the week were scarcely obtainable at the closo. Winter is a trifle higher, selling all the way from $1.25 to $1.50, for inferior to choice. There has been a demand for this kind for the Continent, but at prices below the views of sellers. Though the market closes with an appearance of weakness, owing to the adverse influences noted, seliers refused to concede, the statistical position of the articie being considered strong. Corn being governed by the same influences, the price remains steady at 59@60c, for prime shipping. Flour has been very active for export, being relatively cheaper than Wheat, and prices advanced 15@20c per barrel.

Chicago Grain Market.

CHICAGO, December 10th.—The week's trade in Breadstuffs closes with a strong feeling and notably higber price in all kinds of grain. Eastern complications again seem to have had more influence ou the Wheat business thau the remarkably small receipts. Wheat closes at $1.18¼@1.18¾ for cash, and $1.20¼, seller February. Corn closes at 46½c; Oats, 33¼c. Recelpts for the week: Wheat 289,000, Corn 511,009, Oats 210,000 bnshels; sgainst same time last year, Wheat 492,000, Corn 128,000, Oats 105,000 bushels. Shipments for the week: Wheat 232,000, Corn 287,000, Oats 103,000 bushels; against same time last year, Wneat 151,000, Corn 135,000, Oats 58,000 bu-hels. In explanation of the value of these figures it should be seid, last year at the same date as above prices were: Wheat 97½c, Corn 50½c, Oats 30¼c. Trading is very small, despite high prices in Wheat, and the shortage of the Wheat crop in this section seems more marked than ever. The shrewdest traders on 'Change predict a considerable further rise; and then, unless a general war in Enrope results from the present tronbles, a heavy decline. The dulness in every branch of business continues.

Eastern Wool Markets.

NEW YORK, December 10th.—The demand for Wool this week has been upon a scale very limited, manufactnrers being busy in closing up their affairs for the year, and are in consequence absent from the market. There is still a firm feeling among holders, and from appearances, present prices are likely to be maintained. Advices from London state that sales continue with unabated spirit, but in Sydney, though the opening showed a great advance, there has been a slight decline. From the Rivar Plata it is reported that some 30 per cent. of the Cenda Oriental flocks have died of a disease contracted in consequence of ths excessive wet weather. From the Liverpool sales of East India it is reported that gray stock especially is in reqnest, and prices have further advanced. In fair to best white the advance has been 1½@2d; ou medinm do 1½d, and on yellow, 1d. The sales of miscellaneous carpet stock open on the 28th inst., when 15,000 bales will be offered. California fall is very dull, but prices show no important change. The supply of spring is very light, and prices are well maintained in consequence. Sales of the week are: 120 bales full spring California at 26½@29c; 106 do fall do, 21@23c; 30,000 Eastern Texas, 25@28c; 30,000 scoured do, 60c; 5,000 No. 1 pulled, 32c; 10,000 choice super do, 41c; 20,000 XX Ohio, 48c; and 13,000 lbs Wisconsin, 75 bags super pulled, 61 do X do, 5,000 lbs heavy spring California, and 37 bales burry fall do, on private terms.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week Nov. 22.	Week Nov. 28.	Week Dec. 6.	Week Dec. 13.
Flonr, qnarter sacks	33,755	23,659	33,426	23,221
Wheat, centals.....	248,548	369,424	254,368	285,027
Barley, centals.....	26,287	36,030	42,451	38,708
Beans, sacks.....	8,088	3,855	9,160	5,749
Corn, centals.....	5,858	4,199	5,978	4,280
Oats, centals.....	6,888	18,814	2,355	5,290
Potatoes, sacks.....	30,143	23,106	20,673	17,189
Onions, sacks.....	983	1,790	1,298	1,146
Wool, bales.....	2,208	1,337	438	390
Hops, bales.....	357	1,274	78	.....
Hay, bales.....	1,275	1,019	976	1,035

Bags—The prices for Burlapa in our tables are slightly reduced. The rates for sisndard Wheat Bags are unchanged. Our table prices, 9½@10c, are the common trade jobbing prices, with the usual credit. We are informed that Bags can be bought as low as 8¾ net cash gold at wholessle. This is lower than ever before, as shown in an article on this subject elsewhere this week.

Barley—Barley prices are maintained. We note sales: 2,000 sks Coast Feed, $1.12½, gold; 2 500 sks Coast Feed, $1.17½; 2,200 do do. $1.15; 2,000 do do, $1.10 per ctl, gold; 1,500 do do, $1.25; 1,000 do do, $1.22½, and 500 do at $1.20 per ctl, silver; 1,500 sks Coast Feed, $1.17½, gold; 1,000 do do, $1.20, half silver; 500 do do, $1, all silver; 2,500 do do, $1.25, silver; 1,800 do Bay, $1.25, gold; 6,000 sks Coast Feed, $1 20, and 600 do Bay Feed, $1.25 per ctl, silver.

Beans—Beans are selling at quotations in our tables.

Buckwheat—Rules quiet at $1.50.

Corn—Sales warrant a slight advsnce in qnotations. 200 sks large Yellow at $1.17½; 900 sks large Yellow at $1.17½; 540 sks lsrge Yellow, $1.15; 100 do do, $1.17 per ctl, both silver; and 800 do do, $1.10 per ctl, gold.

Dairy Produce—Fresh Roll Butter experiences a notable decline. The amounts received are very lsrge, and commission houses are full. The enlsrged make comes npon a merket which is working ou Pickled Roll, and, consequently suffers. All retailers who have Pickled Roll are anxious to unload, and will not buy fresh. Thus receivers are willing to sell at almost any price to relieve their spsce. The price is qnotable at 30@35c, with 37½c as an exireme for fancy brands. The total receipts of Butter in this city from bsy aud coast, for the 11 months euded November 30th, were 10,077,400 lbs. Cbeese is unchanged.

Eggs—Fresh Eggs are still ruling st 45c.

Feed—Another advance is recorded on gronnd Feeds. Bran is now quotable st $20; Middlings at $30 per ton. Hay rules from $10 to $16.50. We note sales of Hay: 25 tons good Wild Oat sold at $14.50; 63 tons, in two lots, the Wild Oat at $14.50, and the Wheat at $15; 31 tons Cow at $11; 45 do do, $11; 46 do fair Stable; $12.75. The best Wheat Hay is scarce and commands the top price.

Fruit—There have been large receipts of Sicily Lemons, 550 bxs coming as a direct shipment via New York This movement on the part of the growers was alluded to in a recent number of the PRESS. The *Call* says: "The Mexican steamer brought 1,692 boxes Oranges and 146 boxes Limes. Included in the shipment of Oranges is the crop of the famons Loreto grove, near La Paz, Lower California, consisting of 150,000, purchased to arrive by one of our merchants. This is the finest Orsnge in market at the present time." Sicily Lemons are now as low as $8 per box. Native Fruits sre unchsnged in price.

Hops—Onr dealers can give us no news in Hops. Lots are still held and the trade is without transactions. Emmet Wells reports the New York market for the week ending December 2d as follows: The market is still qnite nnsettled, and with continued anxiety on the part of many holders to realize, large sales have been effected by a decline of from two to three cents per pound, 30 cents now being the highest figure attainable for best Hops suitable for export. It is difficult to realize over 25 cents for anytbing under a shipping grade. No improvement, if any, is now anticipated in the trade until after the holidays. The markets in the interior are reported dull and on the decline. Quotations.—New Yorks, good to choice, 27 to 30c; New Yorks, low to fair, 20 to 25c; Eastern, 25 to 28c; Wisconsins, 18 to 25c; Yeerlings, 10 to 15c; Olds, all growths, 4 to 8c; Californians, 33 to 38c; Oregon, 30 to 33c.

Oats—Oats are received in larger supply than last week. Prices are nochanged. We note sales: 100 sks choice Surprise, $2; 2,000 sks good Feed is reported at $1 70, gold; choice heavy Milling is steady at $1.90; 200 sks Feed, $1.85, gold; 260 sks poor, $1.60, half silver; 1,050 do good Feed, $1.70, gold; 100 do do, $1.75, gold.

Onions—Prices may be found in our tables. The trade discloses no new features. We note sales of 150 sks Alviso at 80@85c.

Potatoes—Salt Lake Potatoes are received and sell at $1.50. Other kinds are unchanged snd rates quoted below.

Poultry and Game—Turkeys have been received in excess and prices have declined to 15@18c ₱ lb live weight. Ducks have advanced to $9@10 per dozon. Geese, also, show improvement.

Provisions—Fresh Beef is a little lower and the market abundantly snpplied. Mutton is lower and the quality reported poorer. Pork is nnchsnged in price snd first-class Hogs are being received. The market for Cured Meats is only moderstely sctive and prices are lower.

Rye—There are sales reported at $1.70 per ctl, gold.

Tallow—The market is firm through a large demand for export.

Vegetables—We have almost seid adieu to the summer Vegetsbles. String Beans are now gone and Green Peas are scsrce at 10c per lb.

Wheat—There wss a little weakness noted at the beginning of the week, but firm holding has msintained prices. The trade has accomplished but little, for shippers offer but $2, while holders demsnd $2.05@2.10. We note a few sales as follows: 150 tons poor Superfine, $1.90; 150 do Shipping, $2.10 per ctl; 10,000 ctls Shipping, $2.07½; 10,000 do Milling, $2.15; 20,000 do do privata, supposed to be at top of market. A purchase of 10,000 sks Shipping was reported st Stockton at $2.07½ per ctl there, which, with commissions and freight, is about equal to $2 15 here. 2,600 do good Shipping, $1.90; 40,000 ctls choice Milling, $2 17½; 2,500 do do at same; 2,700 do do in lots, $2.15; 1,500 do, $2.12½; 4,000 ctls, $2.10, and 783 sks off grade, $2; 4,000 sks good Shipping, $2 10; 1,200 do choice, $2.15 per ctl.

Wool—We have no trade to report in the local market. Quotations below are nominal.

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY, M., Dec. 13, 1876.

BAGS.

Eng. Stand Wht..	9½@10
Neville & Co's..	
Hand Sewed.22x38	9½@10
24x36.....	10¾@11½
23x40.....	11 @12
Machine do 22x36.	9½@10¾
Flour Sacks ¼s...	9 @11
" " ⅛s.....	8 @ 7
" " ⅛s.....	4½@ 5
Hessian 60-in.....	11 @12
do 45-in.....	9 @10
do 40-in	8 @ 9
Wool Sacks,3½ lbs.	45 @50
do 4 "	50 @52½
Staud. Gunnies...	11½@12
Bean Bags.....	7 @ 8

CANNED GOODS.

Asst'd Pie Fruits in 2½ ₱ cans.	2 75 @ 3 60
do Table do...3 75	@ 4 25
Jams & Jellies	4 25 @ —
Pickles ₱ gl..	— @ 3 50
Sardines,qr box	1 65 @ 1 90
do bf boxes.3 00	@— —

COAL—Jobbing.

Anstralian, ₱ ton	8 00 @ 8 25
Coos Bay.....	8 00 @ 9 00
Bellingham Bay.—	— @ 8 00
Seattle....	— — @ 9 00
Cumberl'd.....	14 00@17 00
Mt. Diablo.....	5 75 @7 75
Labigh.....	— — @22 00
Liverpool.....	8 50 @ 9 00
West Hartley....	— — @14 00
Scotch.....	8 50 @ 9 00
Scranton.....	13 00 @16 00
Vancouver's Isl.	10 50 @12 00
Charcoal, ₱ sk...	75 @ —
Coke, ₱ bbl.....	— @ 60

COFFEE.

Sandwich Island	— @ 21½
Costa Rica per ₱	21 @ —
Guatemala.....	20½@ 21½
Java.....	— @ 23
Manilla.....	20 @ 21
Grondnd in os....	25 @ —
Chicory.....	27 @ —

FISH.

Sao. Dry Cod, new	5 @ 5½
oases.....	6 @ 7
do boneless....	8½@ 10
Eastern Cod....	8 @ 8¾
Salmon in bbls..6	50 @7 25
do ½ bbls	3 75 @4 00
do 2 ₱ cans..	2 65 @ —
do 1 ₱ cans..	1 80 @ —
do Col. R. ½ b.	4 25 @4 50
Pick. Cod, bbls.	22 00 @ —
do ½ bbls	11 00 @ —
Mack'l, No. 1, ½ bbls	11 00 @ —
" Extra....	— @12 00
" in kits....	1 25 @2 50
" Ex mess.	3 50 @4 00
" Ex mess. ½ bs	— @12 00
Pic'd Herr'g, hx..	3 00 @ 3 50
Bost. Sm'k'd Her'g	40 @ 50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl.....	2 00@ 2 25
Cement, Rosendale, do.....	2 75@ 3 50
do Portland	4 75@ 5 50
Plaster, Golden Gate Mills.....	3 00@ 3 25
Land Plaster, ₱ ton.....	10 00@12 50

MISCELLANEOUS.

Pulu.....	— @ 7½

NAILS.

Assortad size, keg	3 25 @4 00

OILS.

Pacific Glne Co	
Neat F't No. 1.	1 00 @ 90
Pure.....	— @ —
Castor Oil, No. 1..	1 25 @ —
Baker's A A.....	1 25 @1 30
Olive Plagniol..	5 25 @5 50
do Possel.....	4 45 @4 50
Palm ₱.....	9 @ —
Linseed, raw....	— @ 75
do boiled.....	— @ 80
Cocoannt.....	— @ 80
China nut in cs..	— @ 70
Sperm.....	1 60@1 65
Coast Whales..	50 @ 55
Polar, refined..	62½@ 65
Lard.....	1 10@1 15
Oleophina	— @ 44
Devoe's Bril't...	44 @ 45
Nonpariel.....	50 @ —
Sunaka.....	32½@ 38
Barrel kerosene	32½@ —
Downer Kerose'e	45 @ —
Elaine.....	— @ 42

PAINTS.

Pure White Lead	9¾ @10¼
Whiting	— @ 1¾
Putty.....	4 @ 5
Chalk.....	— @ 1½
Paris White.....	— @ 2½
Ochre.....	— @ 3½
Venetian Red...	— @ 3½
Averill Chemical Paint, per gal. White & tints,2	00 @2 40
Green, Blue & Ch Yellow..3	00 @3 50
Light Red....3	00 @3 50
Metallic Roof.1	30 @1 80

RICE.

China No. 1.. ...	5¾@ 6
Hawaiian, ₱ ₱..	7 @ —
Carolina. ₱ ₱...	10 @ —

SALT.

Cal. Bay, per ton	10 00@14 00
do Common..	5 00@ 7 00
Carmen Island..	12 00@15 00
Liverpool fine..	13 50@16 50

SOAP.

Castila ₱ ₱.... ..	10 @ 10½
Commou brands..	4½@ 6
Fanoy do ..	7 @ 8

CANDLES.

Grant's.....	16 @ 16½
Mitchell's.....	18 @ 20

SPICES.

Cloves ₱ ₱.....	45 @ 47½
Cassia.....	23½@ 26½
Citron.....	28 @ 30
Nutmeg.....	95 @ 97½
Whole Pepper...	14½@ 15½
Pimento.....	16 @ 17½
Gr'nd Allsp pr dz	— @1 12
do Cassia do..	— @1 50
do Cloves do..	— @1 50
do Mustard do	— @1 50
do Ginger do..	— @1 00
do Pepper do..	— @1 00
do Mace do...	— @2 00
Bowen's Pure Gronnd ₱ ₱	— @ 50

SUGAR, ETC.

Cal. Cube per ₱..	— @ 13½
Oircle A crushed	— @ 13½
Powdered.....	— @ 13¾
Fine orushed....	— @ 13½
Granulated.....	— @ 13
Golden C.....	— @ 11¾
Hawaiian.....	10 @ 11
Cal. Syrup in kgs	— @ 72½
Hawaiian Molasses.....	25 @ 27½

TEA.

Ooloug, Canton, ₱	19 @ 25
do Amoy...	28 @ 50
do Formosa	40 @ 80
Imperiel, Cantou	25 @ 40
do Piugsuey	45 @ 80
do Moyune..	60 @1 00
Gnupo'der, Cant.	75 @1 00
do Pingsuey	50 @ 90
do Moyune.	65 @1 25
Yung H'y., Canton	28 @ 40
do Pingsuey	40 @ 70
do Moyune..	65 @ 80
Japau, ¼ chests, bulk.....	30 @ 75
Japan, lacquered bxs, 4½ and 5 ₱s	45 @ 67
Japan do, 3 ₱ bxs	45 @ 90
do pl'n bx, 4½ ₱	35 @ 65
do ½ & 1 ₱ paper	30 @ 55

TURPENTINE.

Eastern.....	50 @ 55

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY, M., Dec. 13, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M.....	30 00@40 00
Tahiti, do	30 00@35 00
Cal. do.....	— —@— —
Limes, ₱ M ...	5 00@10 00
Cal. ₱ 100.....	2 00@ 2 50
do Sicily ₱ h'x.	8 00@— —
Bananas, ₱ bnch	1 50@ 4 00
Cocoanuts, ₱ 100.	5 00@ 8 00
Pineapples, ₱ dz.	6 00 @8 00
Apples, ₱ box...	40 @1 00
Blackberries one	— @ —
Cherries ₱ ₱...	— @ —
Figs.....	4 @ 5
Gooseberries....	— @ —
Huckleberries...	— @ —
Strawbor'a ₱ cs.	— @20 00
Pomgranetes....	— @ —
Raspberries.....	— @ —
Currants, ₱ cs..	— @ —
Oranbarries bbl.	14 00 @15 00
Peaones, ₱ ₱...	5 @ 9
Pears, ₱ bx.....	75 @2 50
Crab apples, ₱ ₱	2 @ 3
Grapes ₱ box....	10@ 75
Rosa of Peru....	75@1 00
Muscat.....	75@1 00
Black Hamburg.	75@1 00
Tokay.....	10@ 75
Quinces, box.....	75@1 00

DRIED FRUIT.

Apples, ₱ ₱	4½@ 6
Paars, ₱ ₱	7 @ 8
Peaches, ₱ ₱.....	7 @ 9
Apricots, ₱ ₱.....	10 @12½
Plums, ₱ ₱.....	3 @ 4
Pitted, do ₱ ₱...	12½@14
Raisins, imported.	3 25 @3 75
Cal. Raisins box	1 50 @2 75
Black Figs, ₱ ₱....	4 @ 6
White, do	10 @—
Prunes.....	12½@17
Citron.....	28 @ 30
Zante Currants.	9 @ 10

VEGETABLES.

Asparegus ₱ ₱.....	—@—
Beets ₱ otl.....	60@—
Cabbage, ₱ 100 ₱s.	50 @60
Carrots, ₱ 100 ₱s .	37½@40
Cauliflower, doz....	75 @—
Celery, doz.....	50 @—
Garlic, ₱ ₱.....	2 @ 2½
Green Peas ₱ ₱	—@10
Green Corn ₱ doz..	—@—
Sum'rSquash ₱ box.	—@—
Marro'fat Sqush, tn	8 00@9 00
Artichokes, ₱ doz..	— @—
String Beans, ₱ ₱.	—@—
Lima Beans.....	—@—
Parsnips, per ₱....	1 @ 1½
Shell Beans.....	—@—
Peppers, green, bx..	—@—
Cucumbers, ₱ box...	—@—
Tomatoes, box.....	80@1 25
Egg Plant, box.....	—@—
Rhubarb box.....	—@—
Lettuce, doz.....	10@—
Turnips, pr otl....	50 @82½
Mnshrooms.....	— @—

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY, M., Dec. 13, 1876.

BEANS.

Bayo, ₱ ctl.....	2 50@2 75
Butter.....	1 50@1 75
Pea.....	1 80@2 00
Red.....	3 00@—
Pink.....	2 75@3 00
Sm'l white.... .	1 80@2 00
Lima.....	2 00@2 25

BROOM CORN.

Common, ₱ ₱..	2 @ 2½
Choice, do ...	3 @ 4

COTTON.

Cotton, ₱ ₱.....	15 @ 18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per ₱	30 @ 35
Point Reyes.....	35 @ 37½
Pickla Roll.....	30 @ 32½
Firkin.....	25 @ 30
W'st'n Reserve.	16 @ 25
New York.....	— @ —

CHEESE.

Cheese, Cal., ₱..	10 @ 15
do Old.....	— @ —
Eastern	12½@ 15

EGGS.

Cal. fresh ₱ doz	45 @ —
Ducks'.....	43 @ 44
Oregon..... ..	40 @ 4½
Eastern.....	21 @ 30

FEED.

Bran, per ton....	20 00 @— —
Corn Meal.....	27 50 @— —
Hay.....	10 00 @16 50
Middlings.....	30 00 @— —
Oil cake meal...	— — @33 50
Straw, ₱ bale...	70 @ 75

FLOUR.

Extra ₱ bbl....	6 50 @7 00
Superfine.....	4 75 @5 25
Greham, ₱ bbl..	5 50 @6 00

FRESH MEAT.

Beef 1st quality ₱.	4½@ 6½
Second do	3½@ 4½
Third do.....	3 @ 3½
Mutton.....	4 @ 4½
Pork, undressed	6 @ 6¼
do, dressed....	8¼@ 8¾
Veal.....	5½@ 6
Milk Calves.....	7 @ 8½

GRAIN, ETC.

Barley, feed otl.	1 10 @ 1 20
do brewing.	1 20 @ 1 30
Chevelier.....	1 25 @ 1 40
Corn, White...	1 10 @ 1 17½
do Yellow....	1 15 @ 1 17½
Oats.....	1 80 @ 1 85
Milling.....	1 90 @ 1 95
Rye.....	1 60 @ 1 70
Wheat shipping	1 95 @ 2 12½
do milling..	2 10 @2 15

HIDES.

Hides, dry.....	20 @ 20½
do wet salted	7 @ 8½

HONEY, ETC.

Beeswax, per lb..	25 @ 27½
Honey in comb..	10 @ 12½
do Strained....	6 @ 8

HOPS.

New crop.....	25 @ 28

NUTS—Jobbing.

Alm'ds n'rd sh'l ₱—	@ 12½
do, soft sh'l...	16 @ 18
Brezil do.....	14 @ 16
Oal. Walnuts....	9 @ 10
Chile Walnuts..	11 @ 12½
Pecannts.....	17 @ 18
Peanuts per lb..	8 @ 9
Filberts.....	15 @ 16

ONIONS.

Union City ctl.	80 @ 90
Stockton ..	65 @ 80

POTATOES.

Petalnma, ₱ ctl.	50 @ 75
Salt Lake.....	— @ 1 50
Humboldt.....	85 @ 90
Half Moon bay..	80 @ 85
Cuffey Cove...	90 @1 00
Early Rose new	50 @ 70
Sweet	60 @ 75

POULTRY & GAME.

Hens, per dz...	7 00 @4 00
Roosters.....	5 00 @7 00
Broilers.....	4 00 @5 50
Ducks, tame, dz	9 00 @10 00
Geese, per pair	2 25 @3 25
Wild Grey dz	2 00 @2 50
White.....	— @1 50
Turkeys, Live, ₱	15 @ 18
do Dressed....	17 @ 20
Quail, per doz...	1 25 @ —
Snipe, Eng., doz.	— @1 50
Doves, per dozen	50 @ 57
Rabbits.....	1 00 @1 25
Hare, per doz...	2 50 @3 00
Venison ₱	8 @ 10

PROVISIONS.

Cal. Bacon, L'd, ₱	14 @ 15
do Medium ...	13½@ 14
do Heavy.....	— @ 13½
Lard.....	12½@ 14
Cal. Smoked Beef	10 @ 10½
Eastern do....	— @ —
East'n Should's	— @ —
Hams, Cal.....	14 @ 14½
do Armour	16½@ —
do Worster's.	— @ —
do Dupee's..	18 @ —
do Davis Bros'	— @ 18

SEEDS.

Alfalfa, Chile ₱.	9 @ 14
do California.	15 @ 17
Quary.....	10 @ 12½
Clover Red.....	— @ 22
do White	50 @ 55
Cotton.....	6 @ 10
Flaxseed.....	— @ 3½
Hemp.....	6 @ 8
Italian Rye Gress	25 @ 30
Perennial do....	20 @ 30
Millet.....	10 @ 12
Musterd. white.	— @ —
do. Brown.....	3½@ 4
Rape.....	4 @ —
Ky. Blue Grass..	20 @ —
do 2d quality..	29 @ —
Sweet V Grass...	— @ 75
Orchard do....	30 @ 35
Red Top do....	— @ 25
Hungarian do	8 @ 12
Lawn do.....	50 @ —
Mesquit do...	20 @ 25
Timothy.....	10 @ 10½

TALLOW.

Crude, ₱ ₱.....	6¼@ 6¾
Refined	8 @ 8½

WOOL, ETC.

FALL—	
Free.....	12 @ 14
Choice.....	14 @ 18
Northern.....	17 @ 21
Burry.....	10 @ 16
Oregon Eastern..	21 @ —
do Valley.....	25 @ —

LEATHER.

[WHOLESALE.]

WEDNESDAY, M., Dec. 13, 1876.

Sole Laather, heavy ₱ ₱	25@28
do do light ₱ ₱	20@22
Jodot, 8 Kil., per doz	43 00@ 50 00
Jodot, 11 to 13 Kil., per doz	68 00@ 79 00
Jodot 14 to 19 Kil., per doz	82 00@ 94 00
Jodot, seoond oboice, 11 to 16 Kil. ₱ doz	57 00@ 67 00
Coruellian, 12 to 16 Ko	57 00@ 67 00
Cornellian Females, 12 to 13	63 00@ 67 00
Cornellian Females, 14 to 16 Kil	71 00@ 76 50
Simon Ullmo Females, 12 to 13, Kil	58 00@ 62 00
Simon Ullmo Femeles, 14 to 15, Kil	66 00@ 70 00
Simon Ullmo Femeles, 16 to 17, Kil	72 00@ 74 80
Simon, 18 Kil., ₱ doz	61 00@ 63 00
Simon, 20 Kil. ₱ doz	65 00@ 67 00
Simon, 24 Kil. ₱ doz	72 00@ 74 00
Robert Calf, 7 and 9 Kil	35 00@ 40 00
Frenoh Kips, ₱ ₱	1 00@ 1 35
California Kip, ₱ doz	40 00@ 60 00
Frenoh Sbsep, all oolors, ₱ doz	8 00@ 15 00
Eastern Calf for Backs, ₱ ₱	1 00@ 1 25
Sheep Roans for Topping, all oolors, ₱ doz	9 00@ 13 00
Sheep Roans for Linings, ₱ doz	5 50@ 10 50
Californis Rnssett Sheep Linings	4 00@ 5 25
Best Jodot Calf Boot Legs, ₱ pair	3 00@ 4 50
Good Frenoh Calf Boot Legs, ₱ pair	4 00@ 4 75
Frenoh Calf Boot Legs, ₱ pair	4 00@ —
Harness Leatber, ₱ ₱	24@ 32½
Fair Bridle Leather, ₱ doz	48 00@ 72 —
Skirting Leather, ₱ ₱	33@ 37½
Welt Leather, ₱ doz	30 00@ 50 00
Buff Leather, ₱ foot	17@ ¼
Wax Side Leather, ₱ foot	17@

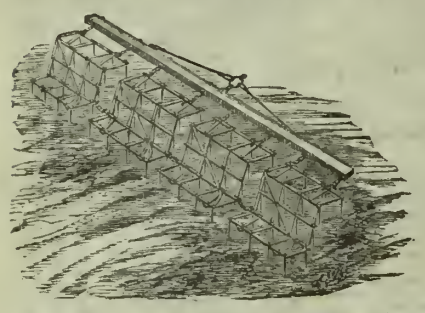
LUMBER.

CARGO PRICES OF REDWOOD.

Rough, ₱ M.....	$18 00
Rough refuse, ₱ M.....	14 00
Rough clear, ₱ M.....	30 00
Rough clear refuse, M..	20 00
Rustic, ₱ M.....	32 50
Rustic refuse, ₱ M.....	22 50
Surfaced, ₱ M.....	30 00
Surfaced refuse, ₱ M...	20 00
Flooring, ₱ M.....	28 00
Flooring refuse, ₱ M..	18 00
Beaded flooring, ₱ M...	30 00
Beaded floor, refuse, M.	20 00
Half-inch Siding, M.....	20 00
Half-inch siding,

Agricultural Articles.

IRON SECTIONAL HARROW.



This Harrow was Awarded the First Premium at the California State Fair in 1875.

The undersigned, having purchased the patent right of this Harrow for California, are now manufacturing them in Roseville, Placer County, and would call the attention of Farmers to the superior merits of this Harrow over all others now in use.

As its name indicates, it is made in sections of about three feet in width, each section having four bars, in which the teeth are inserted, and by connecting the sections with links, the Harrow is formed.

Should a Farmer require a Harrow upon his farm to do all kinds of work, he should purchase six sections, which would be suitable for four horses, and would cut 18 feet in width; by disconnecting two sections he will have a two or three-horse Harrow, cutting about 13 feet. One section alone is complete in itself, and suitable for garden work, with one horse. The Harrows are made of the best quality of iron, and with teeth warranted to be steel.

We give a few of the many reasons why we claim superiority for these Harrows over all others in use on this Coast:

First—By the lightness of draft, taking into consideration the amount of work it does.

Second—By working uneven or rolling ground just as well and as evenly as if it was entirely level.

Third—They are made of Iron and Steel, and therefore are not affected at all by sun or rain, or by heat and cold; they are always tight, and ready for use; they are also durable. A farmer purchasing one has a Harrow that will last a life time.

Fourth—The teeth being fastened with a nut and screw into the cross bars, should one break, another can be inserted in a moment. We are making three sizes, all being the same in width, but different in depth and weight only.

Prices, from $12.50 *to* $15.00 *per Section*

All orders sent to

BREWSTER & CO.,
Roseville, Placer Co ,

Will be promptly attended to, and satisfaction guaranteed in all cases.

CAUTION.

It has come to our notice that certain parties are now making this Harrow in this State, and that several of them have been sent here from the East. Now this is to *caution* all persons against making, selling or buying them, so made and offered for sale, as we shall enforce our rights in relation to the matter, and would call the attention of all persons infringing upon our patent, to the *law* in regard to it.

BREWSTER & CO.,

Roseville, July 15th, 1876.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

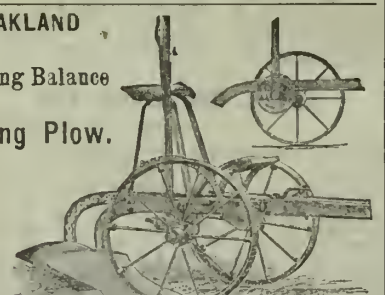
Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

I4v1-3m MATTESON & WILLIAMSON,
Stockton, Cal.

OAKLAND

Spring Balance Gang Plow.



Patented and manufactured by H. N. Dalton, at the Pacheco Agricultural Implement Works, Pacheco, Cal. Established in 1858. Send for Circular and Pricelist.

NEW ZEALAND OATS,

20 BAGS selected SEED OATS,

JUST RECEIVED BY STEAMER, FOR SALE BY

M. WATERMAN & CO.,

No. 111 Clay Street, San Francisco, Cal.

FARMERS write for your paper.

The Famous "Enterprise"

(PERKINS' PATENT)

Self-Regulating, Farm Pumping, Railroad and Power

WINDMILLS,

Pumps & Fixtures,



Have been in use on the Pacific Coast in the towns and farming districts for over four years, and wherever they have been sold (and there are thousands of them out) they are doing their work as well as when put up. A careful perusal of our Circulars gives a fair representation of them and shows their simplicity.

We are prepared to fill orders for Mills, from a PUMPING MILL to a 24-foot POWER MILL for running Machinery, as well as doing the pumping.

The "ENTERPRISE" FEED MILL

(PACKERS' PATENT),

For Grinding Barley, Etc.,



Equally as commendable, has now been tested to entire satisfaction of all, and meets the demand for an article of that kind that has not been supplied on the Pacific Coast heretofore.

CHEAP and RELIABLE.

All Goods Warranted.

Send for Illustrated Circulars and Information to

HORTON & KENNEDY,

Managers for California and Pacific Coast,

General Office and Supplies,

LIVERMORE, ALAMEDA COUNTY, CAL.

FLORENCE

COAL-OIL STOVES

For Cooking and Heating.



Just the Thing for Dairies.

NO SMOKE, NO SMELL,

And Warranted Perfectly Safe.

Consumes two Quarts of Oil in 12 Hours.

SEND FOR CIRCULAR.

SAMUEL HILL, Agent. 19 New Montgomery St.
Grand Hotel Building, S. F.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,
Stockton, Cal.

CAUTION.

To Farmers and all others who put Barbs upon Wire Fences, Making a Barbed Wire Fence, and to all Manufacturers and Dealers in Fence Barbs and Barbed Fence Wire.

You are hereby notified, that in putting barbs upon wire, making a barbed wire fence, or in using or dealing in barbs or barbed fence wire, not made under license from us, you are infringing upon our patents, and we shall hold you strictly accountable for damages for all infringements of Letters Patent, Nos. 66,182, 67 117, 74 379, 84,062, 153,965, 157,124, 157,508, 164,181, 173,667; re-issues, Nos. 7,136, 6,976, 6,902, 7,035, 7,036, 6,913, 6,914, and other patents. Copies of our claims can be obtained of our attorneys, Coburn and Thachor, Chicago, Ill., or of our counsel, Thos. H. Dodge, Worcester, Mass.

WASHBURN & MOEN MANUF'G CO.,
Worcester, Mass.
I. L. ELLWOOD & CO.,
De Kalb, Ill.,

Sole owners and manufacturers, to whom orders for Barb Fence or for Loose Barbs should be addressed.

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50 **Visiting Cards,** with your name finely printed, sent for 25c. We have **100** styles. **Agents Wanted. 9** samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

Nurserymen.

STOCKTON NURSERIES

Established in 1852,

W. B. WEST, Proprietor.

FRUIT AND ORNAMENTAL TREES, EVERGREENS,

Shrubs and Greenhouse Plants,

Comprising everything NEW and RARE in my line.

SPECIALTIES:

Raisin Grapes, Figs, Oranges, Lemons,

And Other Tropical Fruits.

I have imported superior Figs and Raisin Grapes direct from the place of their nativity in Europe, and having propagated large quantities, can now offer them to the trade and the public on the

Most Reasonable Terms.

THE

Most Beautiful Tree in the World,

PAULOWNIA IMPERIALIS OF JAPAN.

The Committee of the Cincinnati Horticultural Society makes this report: "This magnificent rapid growing shade tree is given up by all who have seen it to excel in beauty the lovely 'Southern Magnolia.' 75 to 100 splendid blue flowers grow in a single cluster, each flower being as large as the largest morning-glory, with a texture as fine as a tulip and fragrant as a white lily. A single cluster of flowers would fill a half bushel measure. Will bloom in four years from the seed. A single leaf measures eight feet in circumference."

I. BLACKBURN, } Com.
GEO. WALTZ, }

Fine trees sent by mail, and warranted to grow and bloom in three years. Price: one tree, $1 00; two trees, $1.75; six trees, with one extra, $5.00. Package of 100 seeds for 50 cts. Send stamp for pamphlet, giving a history of tree, and how to raise from seed.

C. C. COOLEY,
Box 183.] Manchester, Adams County, O.

N. B.—Some nurserymen are selling the "Umbrella tree of China" and calling them the Paulownia; beware of them.

200,000

Australian Gum Trees For Sale,

—AT—

STRATTON'S GUM TREE FOREST NURSERY,

HAYWARDS, ALAMEDA CO., CAL.

These trees are from five to twelve inches high, transplanted regularly into boxes 30x20 inches square, weighing 150 pounds. 150 or 500 in each box, in splendid condition for transplanting to their permanent location. Price, $6 to $12 per 1,000. Will contract to plant the trees, or furnish superintendence, on low terms. Cash must accompany orders for less than $50, or if greater than that amount, city reference must be given. Address,

JAS. T. STRATTON,
East Oakland, Alameda County, Cal.



SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

PEPPER'S NURSERIES

ESTABLISHED IN 1858.

The largest and most complete stock of Fruit Trees north of San Francisco bay; also, a general assortment of Shade Trees, Evergreen Trees and Shrubs, Green House Plants, etc. Eucalyptus in variety. Prices low. Catalogues and list of prices furnished on application.

Address, **W. H. PEPPER, Petaluma, Cal.**

SPANISH CHUFA SEED FOR SALE. Address L. L. BEQUETTE, Downey City, Los Angeles Co., Cal.

Trees, Plants, Bulbs. Fall Price List and Bnlb Catalogue GRATIS
Address, F. K. PHŒNIX, Bloomington Nursery, Ill

BLOOMINGTON NURSERY, F. K. PHŒNIX, Bloomington, Ill. Price lists free. Four Catalognes, 25c.



My annual Catalogue of Vegetable and Flower Seed for 1877 will be ready by January, and sent FREE to all who apply. Customers of last season need not write for it. I offer one of the largest collections of vegetable seed ever sent out by any seed house in America, a large portion of which were grown on my six seed farms. Printed directions for cultivation on every package. All seed sold from my establishment warranted to be both fresh and true to name; so far, that should it prove otherwise I will refill the order gratis. As the original introducer of the Hubbard and Marblehead Squashes, the Marblehead Cabbages, and a score of other new vegetables, I invite the patronage of all who are anxious to have their seed fresh, true, and of the very best strain. *New Vegetables a specialty.*

JAMES J. H. GREGORY,
Marblehead, Mass.

Death to Gophers and all Other Rodents.

A FEW VERY FINE ENGLISH FERRETS FOR SALE. JUST IMPORTED.

Address, T. P. HINDE, Anaheim, Cal.

CALIFORNIA FARMERS' MUTUAL

Fire Insurance Association,

No. 38 California Street,

(GRANGERS' BUILDING,)

SAN FRANCISCO, CAL

Capital..... $200,000 00
Assets, October 15, 1876..... 268,716 52

MUTUAL PLAN.

	AMOUNT.	PREMIUMS.
Risks written to Oct. 1, '76...	$5,181,591.00	$114,445.57
Less Amount Canceled.....	360,644.00	6,297.50
Amount in force, Oct. 1, '76..	$4,880,947.00	$108,148.07
Losses paid.....		$7,251.00

CASH PLAN.

	AMOUNT.	PREMIUMS.
Risks written to Oct. 1, '76...	$2,585,914.19	$51,606.96
Less Canceled and Expired...	976,908.00	$19,538.16
Amount in force, Oct. 1, '76...	$1,609,006 19	$32,068.80
Losses paid.....		$10,153.71

OFFICERS.

J. D. BLANCHAR.....PRESIDENT
I. G. GARDNER.....VICE-PRESIDENT
G. P. KELLOGG.....TREASURER
A. W. THOMPSON.....ATTORNEY
FERD. K. RULE.....SECRETARY

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J. D. Blanchar.....San Francisco
G. P. Kellogg.....Salinas
I. G. Gardner.....San Francisco
Chas. Laird.....Salinas
Uriah Wood.....San Benito
A. B. Nally.....Santa Rosa
A. W. Thompson.....San Francisco
A. D. Logan.....Colusa
I. C. Steele.....San Mateo
G. W. Colby.....Butte County
A. Wolf.....Stockton
C. J. Cressey.....Oakland
J. O. Merryfield.....Dixon
E. W. Steele.....San Luis Obispo
C. S. Abbott.....Monterey
Dr. T. Flint.....Hollister

Farm property insured at actual cost on the Mutual Plan. Other desirable property insured, and rated according to merit.

Grangers' Bank of California,

42 California Street,

SAN FRANCISCO.

Authorized Capital. $5,000,000.

OFFICERS:

PRESIDENT.....GILBERT W. COLBY.
MANAGING DIRECTOR.....C. J. CRESSEY.
CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

The Bank was opened on the first of August, 1874, for the transaction of general banking business.

CHRISTMAS.

Something New!
Something Beautiful!
Something to Keep!
Something to send East to your friends!
Something to put your Photographs in!

WHAT IS IT?

Eighteen Photo-lithographic Views of the Pacific Coast—Golden Gate, San Francisco, Mission San Juan Capistrano, Cliff House and Seal Rocks, Sutter's Mill, Quartz Mill and Mining, Hydraulic Mining, Yosemite Fall, Big Trees, Vernal Fall, Geyser Canyon, Donner Lake, Uncle Sam, from Lakeport, Mount Diablo, from Benicia, Mount Shasta, Fort Point, S. F., University at Berkeley, State Capitol; all enclosed, in an oroide box, with the design of the U. S. $20 gold piece stamped thereon. Sent postpaid for 30 cents; four for a dollar. Send postage stamps, P. O. order, currency, gold or silver. Address,

W. C. QUINBY & CO.,
414 Clay street, San Francisco, Cal.

FOR SALE,

A Dairy Farm,

Containing 300 acres, on the old road leading from Auburn to Sacramento, in Placer county, seven miles south of Auburn and four miles east of C. P. R. R.; 12 acres of the best alfalfa in the county on it sown last spring, and 40 tons of alfalfa cut off it this summer, and with irrigating it good next summer it will cut 80 tons, and have a feed crop next fall two feet high, and plenty more land on the farm just as good as that is for alfalfa. For further particulars, address by letter,

W. J. PROSSER,
Rocklin, Placer County, Cal.

DAVIS & SUTTON,

75 Warren St., New York,

Commission Merchants in California Produce.

REFERENCE.—Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A. Lusk & Co., San Francisco, Cal.

"PERIOD" WINDOW SCREENS,



For Exclusion of Flies, Mosquitos Etc.,

For New Buildings.

The stiles of the upper sash are continued to form a panel, in which is placed a wire netting, so that when the upper sash is lowered the screen follows the sash and fills the space. The lower screen operates in a similar manner, but is made half the thickness of sash, and is detachable. Both screens can be made thin and detachable if so desired. In most case the top screen is sufficient. Both of the screens are protected from the weather, and are entirely out of sight when not in use. For particulars, apply to

J. J. NEWSOM, Architect,
321 California street, S. F.

ALEX. BUSWELL,
BOOK BINDER, PAPER RULER
AND BLANK BOOK MANUFACTURER,
521 Clay Street, S. F.
Blank Books Ruled, Printed, and Bound to Order

H. W. JOHNS' PATENT

ASBESTOS MATERIALS,

ASBESTOS ROOFING.

ASBESTOS ROOFING the only reliable Substitute for Tin, at about one-half its cost. ASBESTOS ROOFING COATING for Asbestos Roofing and Repairing Lesky Roofs, together with our Asbestos Cement. ASBESTOS PAINTS, all colors, ready for use, in pails, kegs and barrels. ASBESTOS FIRE PROOF COATING, for inside of Factories, Railroad Buildings, Bridges, etc.; no danger of ignition by fire; a perfect protection. ASBESTOS BOILER AND PIPE COVERINGS—Paper, Thread, Cloth, Plastering Board, etc. Live and responsible men wanted in every city and town. A good business can be made with our Roof Paint and Cement Repairing Leaky Roofs.

THOMPSON & UPSON,

Exclusive Importers for the Pacific Coast for H. W. JOHNS' Patent Asbestos Materials,

No. 5 FIRST STREET, near Market, San Francisco.

GRANGERS' BUSINESS ASSOCIATION,

Incorporated Feb. 10th, 1875. Capital Stock, $1,000,000.

OFFICERS and DIRECTORS:

DANIEL INMAN, (President). AMOS ADAMS, (Secretary). THOS. FLINT.
R. C HAILE, (Vice President). THOS. UPTON. G. P. KELLOGG.
JOHN LEWELLING, (Treasurer). I. C. STEELE. W. L. OVERHISER.
O. HUBBELL. D. CAMPBELL.

SHIPPING and COMMISSION HOUSE,

Grangers' Building, - - - - 106 Davis Street, S. F.

Consignments of Grain, Wool, Dairy Products, Fruit, Vegetables, and other Produce solicited, and advances made on the same. Orders for Grain and Wool Sacks, Produce, Merchandise, Farm Implements, Wagons, Etc., solicited and promptly attended to.

We do a strictly Commission Business, and place our rates of Commission upon a fair legitimate basis that will enable the country at large to transact business through us to their entire satisfaction.

Consignments to be marked Grangers' Business Association, San Francisco. Stencils for marking will be furnished free on application.

DANIEL INMAN, Manager.

PACIFIC OIL AND LEAD WORKS,

SAN FRANCISCO.

Manufacturers of Linseed and Castor Oils,

OILCAKE AND MEAL.

Highest price paid for Flax Seed and Castor Beans delivered at our works. Contracts made and Seed furnished for Flax Seed and Castor Bean Crop of 1876. For particulars, inquire at office.

Beware of Adulterated Linseed Oil.

Purchasers of our Oil, boiled or raw, in barrels, should be particular to notice that our trade mark, pasted over the bungs, has not been tampered with. The trade mark is just put on to secure its purity, and prevent adulterations with fish oils or other cheap oils. Barrels having our brand have been purchased and filled with Adulterated Oil, and sold as our own make. This we can not entirely prevent, but we fully guarantee the purity of all oils taken directly from our works.

The attention of the trade is particularly called to our New and very Superior brand Diamond Castor Oil which for its Purity and Brilliancy cannot be surpassed by any Castor Oil ever offered in this market, as our Testimonials from all the principal dealers will show. Purchasers and consumers of the Diamond Castor Oil are requested to purchase in original packages, and see that our trade mark and brand is on each package.

For sale in lots to suit at

PACIFIC OIL AND LEAD WORKS: Office, Corner California and Front Streets.

KITTLE & CO., Agents.

In consequence of spurious imitations of

LEA AND PERRINS' SAUCE,

which are calculated to deceive the Public, Lea and Perrins have adopted A NEW LABEL, bearing their Signature, thus,

Lea & Perrins

which is placed on every bottle of WORCESTERSHIRE SAUCE, and without which none is genuine.

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper. Wholesale and for Export by the Proprietors, Worcester; Crosse and Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco.



H. K. CUMMINGS. 1858. H. H. BALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer

LEVI STRAUSS & CO.,



Patent Riveted Clothing,

14 & 16 Battery St., San Francisco.

These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

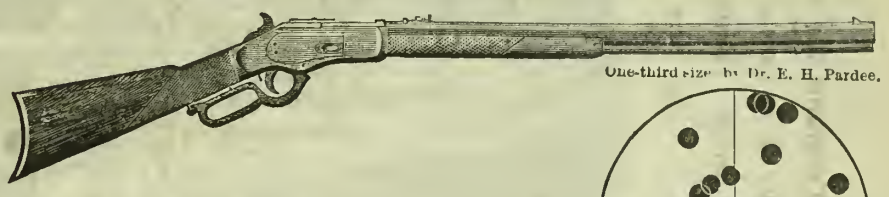
Patented May 12, 1873.

USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY.

ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco

Winchester Repeating Rifle.

MODEL 1873.



One-third size. by Dr. E. H. Pardee.



String measuring from center of target to center of each shot, 3¾ inches. Average distance of each shot, 1 9-100 inches.

The Strength of all Its Parts,

The Simplicity of Its Construction,

The Rapidity of Its Fire,

The Power and Accuracy of Its Discharge,

The Impossibility of Accident in Loading,

Commends it to the attention of all who use a Rifle, either for Hunting Defense, or Target Shooting.

The San Francisco Agency is now fully supplied with all the various kinds and styles of Arms manufactured by the Winchester Repeating Arms Company, to wit:

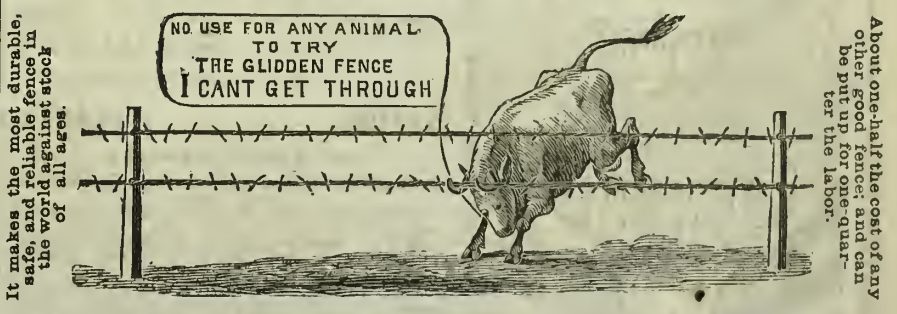
Round barrels, plain and set, 24 inch—blued. Octagon barrel, plain, 24 inch—blued. Octagon barrel, set, 24, 26, 28, 30 inch—blued. Octagon barrel, set extra heavy, 24, 26, 28, 30 inch—blued. Octagon barrel, set 24, 26, 28, 30—extra finished case hardened and check stocks. Octagon barrel, set extra heavy, 24, 26, 28, 30 inch—extra finished—C. H. & C. S. Octagon barrel, set, 24, 26, 28, 30 inch. Beautifully finished. C. H. and C. S. Known as "One of One Thousand." Octagon barrel, set, gold, silver and nickel plated and engraved. Carbines blued, also gold, silver and nickel plated. Military rifle muskets, model 1873. Rifles, muskets and carbines, model 1866. Reloading Tools, Primers and Parts of Arms.

A heavy stock of Cartridges Manufactured by the W. R. A. Co., for all kinds of Rifles and Pistols, constantly on hand and warranted the best in the market.

JOHN SKINKER, No. 108 Battery Street, San Francisco,

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PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, DECEMBER 23, 1876. [Number 26.

Christmas.

The queen of holidays is just at hand. The day which all Christeudom greets with rejoicing, which briugs to all, both young and old, joys which are as old as memory and yet as new as each succeeding year, will soou fill our homes with the joyful cries of happy children and the quiet rejoicing of those who love them.

Christmas is the childrens' day, and thus it has been duriug all these centuries since the star shone on Bethlehem, and hailed the adveut of the Christ-child. What matters it though the doubter try to prove the day we observe is not iudeed the exact day of the Saviour's birth? It is the eveut and not the day which calls for the world's rejoicing. What matters it though labored treatises be written to show that the star which shoue on Bethlehem was only the periodic visit of a comet instead of a star called fresh from God's workshop to mark the time? It matters little. No modern theoriziug cau shake the deep siguificance of the eveuts. No acute argumeut cau wrest from the believer the cousolatiou of his faith. No iugenious reasouiug cau rob the world of the sublime influence of the simple story which happy mothers tell to listeniug children; how a little child, such indeed as they, came into the world, seut from God the father, to teach little childreu, by his loving precept and example, how they should live and act to gain the crown at last.

No; Christmas is too firmly woven into the fabric of the world's thought aud faith to yield to arguments of date or incident. It is a day for the world's good. Let it be the occasiou for the rejoicing aud thanksgiving of the devout, let it be for the rest and recreation of the tired toiler, or let it be the brightest day iu all youth's bright calendar; in all of these, its characteristics, it is a day which the world in losing would be poor iudeed.

Time houors Christmas. The observation of the day by religious ceremonies dates back nearly 1,700 years, and ever siuce, the holiday has held its place in the pomp of Romau ceremonial aud in the quiet of Protestaut worship, Other marks of the day have beeu recorded as the years have advanced. From the gay, fantastic spectacles and dramas of the middle ages, it progressed to the geutler care of the miustrels from the mountaius, and later still, its music weut forth upou the chimes of bells. As the centuries passed new customs marked the Christmas festival. The Germaus gave it the charms which fill the hearts of children, and called Sauta Claus to its service. Then it was that the Christmas tree took root and spread its branches ladeu with the fruit of love. Ever since the growth has advauced with each succeediug year and with the spread of Christianity over the world, uutil now the Christmas moon in all her round may shine ou happy homes where youth's delights are full.

Beautiful indeed is the coming of Christmas upon the sauctuary aud the home. Bright are the decorations of nature's liviug green. Honored are the holly, ivy, rosemary, bay, laurel, and mistletoe, which have become historic across the waters; and fragrant are the pine, hemlock, fir aud cypress, which turn our homes into bowers of beauty.

Christmas Eve at Home.

The observatiou of the Christmas holiday is mainly two-fold. One is the devotional, the other the louder rejoicing in which all the household become childreu. We have chosen for our Christmas engraving a sceue of the former character, because upon this rests the deepest, truest siguificauce of the day. We lead our readers into a happy home where the aged grandfather reads the story of Christ to the listeuing children and graudchildren. It is a home scene where true love dwells. Homely and rude are its adornments and the memory of the olden time dwells iu its large opeu fireplace. The clock upou the high mantel, the light of the fire and the candle, the high case



CHRISTMAS EVE IN THE OLD HOME.

of drawers and the rude chairs are all thiugs around which the miuds of our older readers will weave memories. From homes like that we illustrate have gone out men and women to occupy the highest positious in honor aud usefuluess, aud to advauce the common iuterests of our couutry by their sterling man [aud womanhood.

One can easily imagine that it is Christmas eve in the home we illustrate, aud that, by the divisions of the bible as it lies beueath the eye of the graudfather, the group is listeuing to the story of Christ's birth as told by St. Matthew. Already the youngest of the flock has fallen asleep in her grandmother's arms. After the evening prayer has been pronounced there will be a geueral hauging of stockiugs arouud the fire-place, which is so wide that Sauta Claus with his largest packs will have uo trouble to come in. The liue upon which the lineu is hangiug will become a row of little stockings, and eveu the sleepiug baby's stockings will be there, although she little uuderstands the ceremony. When the stockings are huug there will be a hasty scamperiug for bed. Does our little reader think his little friends iu the picture will sleep? Does he think those bright rognish eyes which are lookiug straight out from the paper cau close until the early morning light? Yes, they will try to keep the watch aud listeu for the tramp of the reindeer on the roof, but tired eyes will close, aud boys and girls will be hushed until the morning. And the morning! Our little readers know best the joys that the little ones iu the picture will feel as they rush to the fire-place iu the gray dawn and seize the well filled stockings aud wake the household with their loud rejoicings.

This is one view of the old time Christmas festivities. It is one iu which the childreu are the rulers and all delight to please them. But Christmas has been kuowu not alone as a rompiug time for little ones. Iu Englaud the grave and reverend senior vied with the young in his frolicsome merry makiug. We enjoy nothing better at Christmas time thau to read again aud again the account which Dickens gives of Wardle's Christmas celebration. It is so good that we caunot resist the temptation to reproduce a few paragraphs iu this connection. It will be remembered that the members of the Pickwick club had gone to spend Christmas at Wardle's, aud this is the way Christmas eve was passed:

Christmas Eve at Dingley Dell.

The family were assembled in the large kitcheu, according to auuual custom ou Christmas eve, observed by old Wardle's forefathers from time immemorial.

From the ceuter of the ceiliug of this kitcheu, old Wardle had just suspended, with his owu hands, a huge branch of mistletoe, and this same brauch of mistletoe iustantaueously gave rise to a sceue of general aud most delightful struggling aud coufusiou, iu the midst of which Mr. Piokwick, with a gallantry that would have done honor to a descendant of Lady Tollimglower herself, took the old lady by the hand, led her beneath the mystic brauch, aud saluted her iu all courtesy and decorum. The old lady submitted to this piece of practical politeuess with all the dignity which befitted so important and serious a solemnity, but the younger ladies, not being so thoroughly imbued with a superstitious veueratiou for the custom, or imagiuing that the value of a salute is very much enhanced if it cost a little trouble to obta n it, screamed aud struggled, aud ran into coruers, aud threateued and remoustrated, and did everything but leave the room, until some of the less adveuturous gentlemen were ou the point of desisting, when they all at once found it useless to resist any louger, and submitted to be kissed with a good grace. Mr. Wiukle kissed the young lady with the black eyes, and Mr. Snodgrass kissed Emiiy, and Mr. Weller, not being particular about the form of being under the mistletoe, kissed Emma and the other female servants, just as he caught them. As to the poor relations, they kissed everybody, not eveu excepting the plainer portiou of the young lady visitors, who, iu their excessive confusiou, ran right uuder the mistletoe, as soou as it was hnng up, without knowing it! Wardle stood with his back to the fire, surveying the whole sceue with the utmost satisfaction; and the Fat Boy took the opportunity of appropriating to his own use, and summarily devouring a particularly fiue mince pie, that had been carefully put by for somebody else.

Now the screaming bad subsided, aud faces were in a glow, and curls iu a taugle, and Mr. Pickwick, [after kissing the old lady as before meutioued, was staudiug under] ths mistletoe, looking with a very pleased couutenauce ou all that was passing around him, when the youug lady with the black eyes, after a little whispering with the other young ladies, made a suddeu dart forward, and puttiug her arm round Mr. Pickwick's neck, saluted him affectiouately on the left check; aud before Mr. Pickwick distiuctly kuew what was the matter he was surrounded and kissed by every oue of them.

"This," said Mr. Pickwick, lookiug round him, "this is, indeed, comfort."

"Our iuvariable custom," replied Mr. Wardle. "Everybody sits down with us ou Christmas eve, as you see them now—servants and all; aud here we wait until the clock strikes twelve to usher] Christmas in, and beguile the time with forfeits and old stories. Truudle, my boy, rake up the fire."

CORRESPONDENCE.

Description of Santa Cruz County—No. 5.

EDITORS PRESS:—Before leaving the Bean valley, described in our last article, it will be proper to mention a few other pieces in this vicinity. The first is the vineyard and ranch of John and William Watermen, situated on the ridge east of the Bean ranch, and seperating it from the Soquel creek. It conteins 10 acres or more (we have not the statistics) of vines and other fruits, and is considered equel in the quality of its products to most of the other vineyards in this vicinity. Its improvements are good and testeful, end it is a location worthy of especiel mention. A little rench perched high up on the west side of thie same ridge, but farther oceanward, belongs to G. V. Friend, and its little cultivated field of green or gold, es the season may be early or lete, givee a pleasant relief to the eye wendering over this world of interminable hills and forests. These places are a mile or more from "Charley'e turnpike," in a direct line. But situated on the road about half a mile from where it crosses the creek, is a honse end small field, known ae the "Bobbit place," settled many yesrs ago by a man of thet neme. Back of this place, on the west side of the Zayante ridge and facing that creek, ie a timber rench occupied by Robert A. McKean end his family. It is ebout half a mile from the turnpike and on a road connecting this with the new road running from the summit down the Zayente, to Felton. This last is the "new rumored route," "by the Hattler ranch," end now constitutes the eeventh route into the county.

After leaving the Bean creek crossing, winding in end out up an ascending grade, cut in the hill's side and through thick timber all the way, the road reeches the ranch of Charles Peoples, two and one-half miles from the crossing and one-helf mile from Scott's velley. Thie ranch is situated on the hillsides above and below the road, and hae been made with great lebor by grubbing the shrubs end trees with which the land wee covered. It contains a comfortable house and out-houses, several acres of vineyard and orchard end grain leud, on which grows all kindeof grain or hay. And while it wonld hardly pay to create such a farm *twice* in a men'e life, yet, after it has *once* been done, it furnishes quite a comfortable living, and affords encouregement to othere meking a beginning under disedvantages to persevere, as snccese in the shape of a competence will be attained in the end. After leaving this place abont one-quarter of a mile, the road begins to descend to Scott'e valley. This portion is cut in the side of the hill, which ie composed of a hard white sand, snpposed by some to be suitable for the manufacture of glass, snd indeed it has been shipped to several points for this purpose, but with what success the tests have reaulted we are not informed. At this point, where the first view of Scott's valley is obtained, the hills which all along have descended on the right of the road to the creek helf a mile awey, now drop down suddenly snd precipitously to

A Beautiful Valley,

Lying between low bluffs bounding the west eide of Scott'e valley on the one side and the hills lying west of Bean creek end extending to the Zayante creek on the other. The length of this little valley is about two miles and it extende to the canyon below the ranch of D. M. Locke, and comprises all the open land on Bean creek above its junction with the Zayante. About midway of this velley it nerrows in, and was formerly covered with large redwoods, and here was located for several years, what was known as "Anthony's saw-mill." This mill ie dismantled now, ae most of the timber has been cut and the lumber shipped to various parts of the State, contributing to the wealth end comfort of those portions. And now here, where a few years ago the woodman'e axe rang cheerily through the dense forest end the surrounding hills echoed beck and forth the steam whistle's shrill scream and the logger's hoarse shout, the one urging his well trained cattle, as along the wey they trailed the huge redwood, the destined food of hungry saws, and, though "vest in its proportions," never able to satisfy the cravings of their insatiable maws, and the other the welcome signal to tired woodmen that the hour of refreshment and reet had come—here now all is vacent and still. Here, where the busy hum of active life all around and all through arose end ewelled in volume, until the higher valleys and more distant hills caught the sonnd and these pulsations of human activity throbbed in all their wild recesses—Here now ie a stillness unbroken, eave when the ranchman passing along his quiet way with subdued voice cheers his flagging team or whiles the time with whistle or song. At the upper end of thie velley, where we get the first and only sight of it, is the ranch of B. R. J. W. Dewolf, and ia known as the

"Strawberry Valley Ranch."

The house is located on a gentle rise at the upper extreme and overlooke the whole farm. Above the house on the hillside is a vineyard and orcherd, while all around it are shrubs and flowers. Ite rnetic porches are covered with various flowering vines, filling the air with their fragrance and embowering the whole in a mase of foliage. The larger portion of the rsnch is devoted to grain and hey raising and is well adapted. There ere springs on the place said to be magnetic, a resort for invelids. This is a prstty place end seems es if it had been dropped down below the surrounding velleye and hills to shut it out from the rest of the world. Ite surrounding hillsides are covered with timber, but the velley itself, with the exception of the timber belt in ite middle, before meutioned, was free from timber, and originally covered with gress. It was en elysium formerly for ell kinds of wild animals. Bean creek rune the whole length of its western border with slight descent, ite waters shady and cool end a delightful resort on a hot summer's day. There are but two other places inhabited in the valley above the ranch of Mr. Locke—the home of your correspondent, "Mery Monntain," end visited a few yeers ego by W. B. Ewer, the well-known Centenniel correspondent of the PRESS. Mr. John Perkins owns one of these placee and Mr. Venluven the other. They are both timber rauches, with small cleered fields for garden and grain, one above and the other below the old Anthony mill In Juue last we visited Mr. P.'s ranch, and there witnessed a sight equal to one illustrated a few years ego in the RURAL PRESS. A roee planted at one end of the house had grown nntil it covered almost the entire roof, and then seeking the ground agein adown the porch, would have prevented all entrance within, but for the busy clippings of the good housewife, who had thus formed a portal never surpassed by stained glass, scroll or cerved work of "baronial hall." Almost e solid mass of pink end white roses on either side, above and all around, hung, not content with conceal ing all else, but to reach beyond and cover each other, the whole forming such drapery as no mortal hand could imitate. No wonder that in these wildwood homes there is equal taste and often more happiness than in the costly paieces of the city, for in the one is a beautiful content, while in the other often unsetisfied pride. Going back to the turnpike, and leaving the send cut and every view to the west, we immediately enter Scott'e valley and the lerge farm of Mr. George E Scott. known for meny years as "Scott'a station." We shall reserve the description of this important plecs to our next and close with an illusion to the small ranch of George Lamb, above that of Mr. Scott, on the eide of the hills to the north of the valley. Mr. L. hes planted a small orchard, ie building a house, and intends to make a permanent home. C. N. W.

Wetsonville, December 10th, 1876.

Note From Solano County.

EDITORS PRESS:—There ere portions of our State where thie dry weather has been decidedly favorable to plowing and putting in grain. There has certainly been no stormy weather to retard farm work. Although the land is too dry to plow eesily, yet the wheat planted will have a very favorable prospect of producing a heavy yield. My experience is greatly in favor of early sowing when it can be done. Between Bridgeport and Suisun there are large fields of wheat already up and growing, most of the farmers are busy preparing the lands and planting; some few, however, prefer to wait for rain. In this vicinity is the valuable farm of Mr. D McCrary. This is truly a model farm, and reflects credit upon the judgment and skill of its owner. It contains 750 acres; ie beautifully located on the rich bottom lands of the valley, and is a fortune to any man who will direct its management in farmer-like style. This farm is stocked with cattle, sheep and hogs, and is fenced into fields and so arranged es to give both summer and winter pasturage with fields for hay and wheat crops. The wheat is all planted with drills, and men are busy at this time putting in the seed. Along the fences are planted many thousands of the blue gum trees, the trees being brought from Alameda county at considerable expense. When these trees are three years old they will add greatly to the beauty of this farm. Mr. McCrary is one of our gentlemen farmers, one whom California should be proud of, and it is a pity there are not more who would follow his example end help to make our country more beautiful as well as more valuable. H. W. R.

Dec. 15th, 1876.

Hannay Bros.' Nursery.

EDITORS PRESS:—A few days ago I had the pleasure of a visit to the nurseries of the Hannay Bros., on Julian street, in East San Jose.

Thie enterprising firm have steadily increased their business from yeer to year with the growth and development of the country, and to supply their constantly increasing trade.

I found them both on hand ready for work and full of business, with a large and varied stock of trees, and everything in the packing yard in complete order for the season's operations. Both experienced nurserymen, they make a specialty of personally superintending each branch of their business, thus securing thoroughness in every department.

Their trees, being grown in the rich sandy loam soil of the Coyote river bank, are healthy, well grown and stalky.

From many years' acquaintance with these gentlemen, in calling attention to their advertisement in another column of this paper, I can most freely recommend them as entirely worthy of the confidence and patronage of all who may went to purchase trees, etc., either in small or large quantities. G. W. M.

Santa Clara, Cal., Dec. 16, 1876.

HORTICULTURE.

The Orange Scale Insect.

EDITORS PRESS:—I have been intensely interested in the pros and cons in past numbers of the PRESS on Orange Culture, Scale Bugs, etc. My friend Russell, of Riverside, thinks the panacea for all the ills in orange culture is an exodus of all concerned to the locality in which he ie particularly interested. That an enterprising people have settled Riverside, and thet their success is truly remerkable, no one who has visited them in the last year will pretend to dispute. It is a good idea, however, not to "count chickens before they are hatched," and I would suggest to Mr. Russell, that the comparetive absence of scale bug just now does not guarantee a perpetnal absence of the insect. Mr. Bristol, of San Buenaventura, uses some rather stubborn and terse arguments when he says in reply to Russell'e foggy idea: 'For surely the fog could no more produce a scale bug than an abalone." Mr. Bristol is also correct when he says es the trees "get older, this rapid growth will be retarded, and then look out for the scale bug." I remember quite well when the owne s of orcherds in certain localitiee in this county declered thet the vicinity of Los Angeles was not the place to plant orange orchards. Said they, "it's too near the coast," "look at our orcharde and our fruit, clean and beautiful, proof of onr superior location;" but eles, with time ceme the pest, and we hear no more about locality. I know a gentleman on the Azuea rancho, at the base of the mountains, remote from fogs, whose orange grove, until within two or three years, was the boest of the county; beautiful clean fruit, and clean handsome trees, and no scale bug. About three years ago I visited this grove, when the proprietor pointed out a tree which hed been severely pruned, remerking "the scale bug hes eppeared on that tree; it hae alarmed me; it is one of the finest trees in the orchard, but I have cut awey and burnt most of the branches, and shall continue to do so to prevent the spread of the insect." My friend has not carried into effect his determination, simply because he did not care to grub up his entire orchard.

And you quote very properly too, Mr. Editor, from a paper read by E. S. Darcy, before the Florida Fruit Growere' Association. The paragraph that strikes me most forcibly is this, "I have trees 27 years old from the seed that have had the scale insect on them from the time they were six inches high; all that has ever been done to them has been to give them the sweepings of my yard, and an occasional load of swamp muck, mulching, etc., and I do not believe there can be many better trees shown of their age in the country."

My opinion of the whole matter is this, the best remedy for scale bug on orange aphie ie

Thorough and Proper Culture of the Trees.

If a tree stops growing from eny cause, gets stunted, the scale bug appears at once. Stimulate the tree, start it to growing vigorously, and the insect disappears. Where they come from or where they go, I leave for some learned bugologist to tell us. Old orchards, or rather leaving orchards are affected, in my opinion, from two potent causes:

1. As I have said, from an absence of proper and thorough culture.

2. From excessive overbearing.

I know of no fruit-bearing tree in the world so prone end determined to overbear as the orange, and through an over-anxiety for fruit, they are allowed to over-fruit themselves until the vitality of the tree is exhausted. It then stops growing, the fruit gets small end sour, and the scale bug is triumphant. I feel confident that thorough and persistent culture, careful and judicious pruning and thinning out of fruit, and a temperate use of water during the dry months, will, to say the least, produce

Healthy, Thrifty Orange Groves;

And where groves are healthy and thrifty the scale bug will not flourish. Perhaps no orange orchard in the world is entirely free from this evil, but if the above suggestions are faithfully performed, we will substantially be relieved from serious damage either to tree or fruit. The scale bug may, as Mr. E. S. Darcy says, be present from the time the trees are "six inches high" until they are "27 years old," yet the damage, if any, will be nominal.

Yours for the advancement of this most remunerative industry, THOS. A. GAREY.

Los Angeles, Dec. 13th, 1876.

[Our readers will thank Mr. Garey for his clear and pointed article. We trust all will give heed to his words.—EDS. PRESS.]

Olive Culture in Santa Barbara.

Mery Cone has written a book entitled "Two Years in California," from which we extract the following: The olive seems to be in as good es its native element in thie region. The leef of the tree is long and narrow, and not unlike that of the willow. It is bluish green above, and on the under side of a lighter color, with a silvery tinge which produces a very pretty effect when the branches are tossed by the wind.

The fruit of the tree has been utilized from an early day, and ite cultivation is among the things that pay. It may not be without interest to go somewhat into detail in regard to this industry. In the Santa Barbara region the olive is propagated by cuttings. These are made from 10 to 15 inches long, and the thicker the better. The slips are put into the ground perpendicularly, about six or eight inches apart. Everything seems to be delighted to grow in the beautiful country around Santa Barbara, and the olive ie not an exception. These cuttings soon send out roote and branches. After awhile they are taken up carefully and set ont in orchards, being placed in rows 25 or 30 feet apart each way. The tree grows slowly at first, but begins to bear in four or five years. They do not, however, produce a full crop until they are 10 or 12 years old. But as a compensation for their slow growth and tardy maturity, they live and produce fruit to a venerable age. A tree that had lived through its three score and ten years, last year bore 100 gallons of olives. The average yield that is expected of an orchard is about 25 gallons per tree,

The Process of Pickling.

For pickling, the olive is gathered before it is quite ripe, though the nearer it is to maturity, and a consequent change of color, the better and richer the pickle. It is from the color of the fruit in this unripe state that the shade "olive green" takes the name. When ripe the fruit is of a purplish maroon color, and in both size and color has a striking resemblance to the damson plum. For making pickles the immature olive is gathered and put into vessels filled with cold water, which must be changed for four or five successive days; or, better yet, they are sometimes placed in casks through which the water is allowed to percolate. The object of this process is to extract from the olive a bitter quality that is always present. When thie process is completed, the olives are put into a strong brine, and in a few days are ready for use. Persons who do not like imported olives often become fond of those put up in Santa Barbara, on account of their superior richness and excellence, which is in part owing to their being allowed to become more nearly ripe before they are gathered. When the berry is to be used for making oil it is allowed to ripen on the tree.

Gathering the Fruit.

When gathered, cloths are spread under the tree and the fruit is shaken off, and that which does not fall readily is beaten off with rods or poles, which would seem to have been the way in which olives were gathered in Palestine, as can be inferred from the command, "When thou beatest thy olive tree, thou shalt not go over the boughs again; it shall be for the stranger, for the fatherless and for the widow."

After the fruit is gathered it is placed in the drying-room or on shelves, where it is allowed to remain several days, in order that the watery juices contained in it may evaporate.

Oil Making.

The machinery now in use for manufacturing the oil is of the rudest and most primitive character, and will probably before long, when the rule of the Anglo-Saxon is fully established in this region, give place to something better. A circular stone bed is built, and upon this a stone is placed, to which a sweep is attached. A horse is fastened to the sweep, and the berries being spread upon the bed, they are crushed by the turning of the stone upon it. Even this would seem to be an improvement upon the Jewish method, which seems to have been to tread out the oil with the feet. Thus the dying Jacob said of Ashur, "Let him dip his foot in oil."

Process of Crushing the Fruit.

The stones or pits of the olive are not broken in the first process of crushing. After the fruit is fairly crushed the pulp is gathered up and put into coarse sacks or gunny bags, and submitted to the pressure in a home-made, rough sort of a screw. As the oil is extracted it is put into vessels and allowed to settle, after which, without any further process, it is ready for use. The result of the first operation makes what is known in commerce as "virgin olive oil." Its sweetness and purity are perennial. Time does not harm it and no change renders it impure. At the old Catholic mission in Santa Barbara there is oil that has been kept for years without losing any of its original virtue. We have been in the habit of getting very little of this "virgin oil" from abroad. The best is kept at home for the rich and great to use, that they may have unction given to their salads, and sweetness to any part of the viands into which oil enters as a component part.

A second pressure succeede the first, in which many of the pits are cracked and the pulp more finely comminuted. The result of this is an inferior article of oil, such as is generally brought to us for table use.

After this there is still another effort made to compel the olive to give up its oil. The pulp is brought to a boiling heat in large copper kettles, and then submitted once more to pressure. An inferior kind of oil is thus obtained, which is used for lubricating purposes.

Stock Breeders.

"Breeding Short Horns for Practical Value."

Editors Press:—As I am invited to give my views on some points advanced on the subject by one of your correspondents, I may now do so without presumption on my part.

The theories set forth in the first letter of your correspondent under the title of "A Question in Stock Breeding," had been carefully read and re-read by me, but the more I read and thought about the matter, the more it appeared to me like a tangled skein of ideas quite beyond the power of a plain farmer like myself to unravel; unless I begin very near the bottom to work upwards from the place where his ideas "of a farm and a farmer" are given us in following words, viz.:

"The idea of a farm and of a farmer is a very simple one, and consists of a piece of land and a man with seed furnished by the same provident hand that has furnished the soil to cover it, going forth and with his own hand, assisted by whatever appliances his ingenuity may devise, planting this seed, and after careful tillage reaping and garnering the abundant fruits which a beneficent Providence may assure to honest labor."

Verily, his ideas of a "farm and of a farmer" carry us back to the time when it was said: "And Abel was a keeper of sheep, but Cain was a tiller of the ground."

We will now turn to the first paragraph, where he says, "Stock importation and stock breeding, as such, is purely and simply a speculative procedure dependent upon the same laws for success as are other mercantile ventures." Why not? The same law of supply and demand governs alike the produce of the farm and the loom. It is my duty as a farmer to make the farm produce whatever is most profitable to myself as producer, and to the community at large as consumers. That is the view, I believe, taken by the more intelligent class of farmers. It is also generally conceded that to bring the land to the highest producing capacity of which it is capable, we must so

Blend the Stock and Tillage Interests

Of the farm as to make them work together for the benefit of both at the same time, and *all the time*. To carry out this plan to the best advantage, we require the most improved and early maturing breeds of cattle for converting the products of the soil into either meat or dairy products—or both. Now, one of the most approved breeds for this purpose is the Short Horn, and if we can buy better Short Horns for our purpose in the Eastern States, or in any other country than we can buy in this State, either for the foundation of new herds, or for the improvement of old established herds by the infusion of new and superior blood, it is to our interest to do so—aside from all speculative views of the transaction.

There is a *daily* demand for the products of the dairy and the shambles, and the man who keeps a breed of cattle upon his farm—whether obtained by importation or otherwise—that will produce the above named products in both increased quantity and of superior quality over that yielded by the common breeds of the country, does so to his own benefit, as well as that of the community at large. And the only speculative part of the procedure in the purchase or importation of cattle for such purposes, consists in the extra risk taken during their transit from the place of exportation, which risk is probably not more than that connected with the vegetable products of the farm generally—taking climatic influence into consideration.

Further on in your correspondent's letter we find the following: "While we award all praise to Mr. Carr in his sphere of judicious money investment, yet we feel that greater commendation should be awarded to such men as Abbott, Ford and Robson, who, notwithstanding the high cost of the experiment, have ventured to make a practical test of these breeds of cattle in their dairies and on their farms, with a view to the value to the average farmer for milk and beef, and to test the matter of real profit in this direction; or, in other words, to see if a farmer of larger or smaller means would be justified in buying these high priced animals to breed from, just for what extra quantity or quality of milk they would yield, or for the greater quantity of beef or enhanced price that beef would bring in the market. The solution of this problem we regard as the true solution of the value of the whole subject."

Were the Short Horns an untried breed of cattle for dairy purposes, or had they never, as a breed, been put to a "practical test," your correspondent would be perfectly justified in using the word *ventured* in the above quotation. But, under the circumstances, we do not think it ought to be used in connection with the purchase of Short Horns for the dairy. If Abbott, Ford and Robson are well informed on Short Horn matters, besides being men of judgment in selecting cattle for the dairy, the *venture* in purchasing Short Horns for the dairy is exactly in proportion to the degree of judgment exercised; for there are some first-class herds of Short Horn dairy cattle in this State, from which one could hardly fail, with ordinary judgment, to select first-class dairy cattle. As for the solution of the problem he speaks about, it has been solved and resolved time and again for the last four score years and more.

Buying Cattle for the Dairy.

If any man buys cattle of any breed for dairy purposes without having the requisite knowledge of the class or quality of the animals required for the purpose, or if he buys Short Horns that have been imported, thinking they must be better on that account, as I have known many people to do, when they could have been better suited at less than half the cost with cattle bred in this State; or should one buy, against his own better judgment, imported or fashionably bred animals, more for the name of the thing than for the useful qualities of the animals themselves, then if there is failure or disappointment the breed of cattle cannot be blamed for that failure. The failure proceeds either from lack of knowledge on the part of the buyer, or in misapplied judgment, a thing that is hardly likely to occur very often with any one who has to consider the matter financially.

Mr. Carr as a Breeder.

Your correspondent looks upon Mr. Carr as a speculator in Short Horns, for what reason I must confess I cannot see. Mr. Carr has an established herd of Short Horns, with the necessary land and appliances for keeping up such a herd as may be a credit and a benefit to the State at large. I believe he has only made some two or three importations of that breed, besides buying a few that have been brought here by other parties. In the last catalogue of his herd there are 29 females, 15 of which, I believe, were bred at Gabilan. But as he does not give the breeder's name in the pedigrees of those bred by other parties—a thing I would suggest for the next issue—I may be mistaken in one count either way. Of the 14 bred by other parties, five were purchased in this State, leaving nine cows and heifers imported by himself—not a very large showing in favor of speculating in Short Horns.

Breeders and Importers.

In your correspondent's second letter on the subject he explains his views a little more fully, and proves them by two quotations from former numbers of the Rural. One quotation is from my own paper read at the Dairyman's Association, in which he accuses me of using "strong language" when I say that the "majority of Short Horns that have been imported into this State have been imported for speculative purposes." If necessary, I could name half a dozen men who have imported certainly more than half the Short Horns that have been brought to this State during the last 18 years, who do not own half a dozen Short Horns in the State to day.

Besides the speculators there has been another class of importers—amateur farmers—who have, from time to time, made importations on their own account, without, probably, either counting the cost or reckoning on any profit. I consider that this latter class of importers have done more harm than any others to the name of Short Horns as useful cattle for the general farmer, for the reason that the cattle have generally been taken to some country residence in the center of an agricultural population who have closely watched the results of such importations. The management in nine cases out of ten, being left to hired men, with no knowledge of the breeding and rearing of cattle, they are consequently often unduly cared for, both in milking and feeding, thus allowing the milking qualities to deteriorate through sheer neglect and mismanagement.

Perhaps your correspondent may think this strong language, too—nevertheless, it is none the less true—and should he, in addition to what I have said on the practical value of Short Horn cattle for the general farmer, wish for ocular demonstration of the same, I can with confidence invite him to come and see for himself the every-day-in-the-year performances at the pail of the herd of Robt. Ashburner.

Baden Station, San Mateo Co., Dec 16th.

Bees.

Winter Work.

Now is the time to put up your hives for spring use, so that, if painted, they may be thoroughly dried and ready for use when wanted. Care should be taken that the frames are made with sufficient space between them and the walls and the bottom of the hive, so that the bees can pass between; otherwise there will be a lurking place for moths. Bees want to pass all around their work and thus prevent any intrusion by moths. The entrance should be sufficiently small to prevent the entrance of mice, which are very destructive to the comb, often driving out or destroying the entire colony. During the winter season, when bees are rearing but a little brood and are not working much, these little intruders are most apt to invade the hive. Hives that are occupied, with entrances sufficiently large for a mouse to enter, should, during the winter, be frequently examined. We are often asked the question, Which is the best hive to use? We should say, that which is commonly known as the Langstroth, especially for extracting. It is convenient, simple and cheap. Many extract from the single hive, which we do not approve of, as more or less of the young brood is destroyed and the colony weakened and demoralized in a manner that retards work. Extracting from the brood-chamber should be avoided, except where it is necessary in order to make room for the queen to lay or comb that contains nothing but honey. The double hive, therefore, should be used, and should be ventilated at each end by an inch or an inch-and-a-quarter hole, covered with wire cloth. Honey houses should now be built, extractors, tanks, cans, etc., got ready, that there may be no delay when the honey season begins.

Much money might be saved to bee-keepers by using man-power or horse-power saws in sawing out materials for hives. These saws are not very expensive, and we presume can be had at San Francisco. Several bee-keepers could club together for the purchase of a saw, which they would find of great service. Many scraps of boards can be sawed up into slats for frames, etc., that would otherwise be lost.—*N. Levering, in Los Angeles Herald.*

The Horse.

Horses and Their Drivers.

Very many years ago, I made up my mind that when there was a quarrel between a man and a horse, in nine cases out of ten the man was in the wrong. Continued observation has only served to confirm this belief.

The radical error into which drivers fall, is, that the horse knows perfectly what is wanted of him, and will not do it. Then the driver proceeds to show that he is the master, and, in the vast majority of cases, the horse is punished without the slightest idea why he is so treated.

For a horse to understand instantly what his driver desires, there must exist a pleasant feeling between them. The horse must feel a confidence in his driver, and with one driver a horse will show himself fearless of locomotives, and with another he will dread them. One man will drive a horse 15 miles with no more fatigue to the animal than another will produce in driving him ten. Nothing tends more to cruelty to animals than does cowardice. The man who has a lurking fear of his beast, is the one who treats him the most harshly. The man who is afraid of no horses, is just the man who treats all kindly. He is perfectly aware that there is always danger with horses; but he also knows that this does not depend upon the horse, but mostly comes from some extraneous source, the bad driving of others whom he meets on the road, or accident of some sort. He has a friendly feeling towards his beast, as being a willing and useful servant and companion, ready to do his whole duty, and more than his duty. So there springs up a pleasant feeling on both sides, the horse is encouraged and cheerful, and gets through his work easily and well. Such a driver gets vastly more from his horses than does a cruel one. They come in fresh, they feed and sleep well, and begin the next day's work under favorable conditions. Age tells but slowly on them; at 15 and 16 years, such horses still show speed and endurance, and are still gay and free goers, with years of usefulness before them, whereas the cruel man's horse is used up long before this.

There should be kindness simply from kind feeling, but it does not the less certainly bring its material reward.—*Our Dumb Animals.*

Comparative Value of Horse Feed.

Every good groom knows that sound oats and beans in due proportion, and at least a year old, are the very best food for a galloping horse—the only food on which it is possible to get the very best condition out of a race-horse or a hunter. It also has become known that horses do slow work and get fat, indeed too fat, on maize, Indian corn, which is frequently one-third cheaper than the best oats. In the East horses are fed on barley, and it is a popular idea with English officers who have lived in Persia and Syria that the change of feed from barley to oats often, when imported, produces blindness in Arab horses. Now although no men understand better or so well how to get blood horses into galloping condition as English grooms, they do not, and few of their masters do, know the reason why oats and beans are the best food for putting muscular flesh on a horse. The agricultural chemist steps in here, makes the matter very plain, and shows that if you want poor, Indian corn, although nominally cheaper, is not cheap at all. According to Dr. Voelcker's and other chemists' analyses, we find, in round numbers, in oats, beans, barley and maize, the following constituents;

	Oats	Beans	Barley	Maize
Water	14.3	14.5	14.3	14.4
Nitrogenous or muscle-producing compound	12.0	25.5	9.5	10.5
Starch and other non-nitrogenous heat and fat-producing compounds	54.4	43.0	61.1	61.0
Oil, as ready-made fat	6.0	2.0	2.5	7.0
Indigestible woody fiber	10.3	11.5	7.0	5.5
Mineral matter (ash)	3.0	3.5	2.6	2.1
	100.0	100.0	100.0	100.0

It was a common saying in Leicestershire, before deep draining, clean-cut fences, increased sheep-feeding, had improved agriculture at the expense of fox hunting, after one of those five-and-forty-minute runs at best pace that are now so rare, "it found out the horse that ate old beans and best oats." In fact, they made experiments they did not understand, which it was left for the modern chemist to explain. When we feed a bullock, a sheep, or a pig for sale, after it has passed the store stage we want to make it fat as quickly and cheaply as possible, but with a horse for work the object is to give him muscle—in common language hard flesh. There are times when it is profitable to make a horse fat, as, for instance, when he is going up for sale, after a severe hunting season. For this purpose an addition of about a pound and a half of oilcake to his ordinary food has a good effect. It is especially useful when a horse that has been closely clipped or singed is in low condition. It helps on the change to the new coat by making him fat. A horse in low condition changes his coat very slowly.

When from any cause there is difficulty in getting a supply of the best oats, an excellent mixture may be made of crushed maize and beans, in the proportion of two-thirds of maize and one of beans, which exactly afford the proportions of flesh-forming and fat-forming food. Bran is a very valuable food in a stable for reducing the inflammatory effect of oats and beans. Made into mashes it has a cooling and laxative effect, but used in excess, especially in a dry state, it is apt to form stony secretions in the bowels of the horse. Stones produced from the excessive use of bran have been taken out of horses after death weighing many pounds. When sawn through they appear to be composed of a hard crystalline mass, deposited in regular annular rings, resembling in appearance the concentric yearly rings of wood; they prove to be composed of phosphate of magnesia and ammonia. Millers' horses are particularly subject to this malady. The best way to guard against it is to add half a pint to a pint of linseed, boiled until quite soft, to the mash of each horse.—*London Live Stock Journal.*

Floriculture.

Otto of Roses.

We have had notes from our readers concerning the practicability of turning our splendid growth of roses to the precious otto or ottar, which in its pure state is worth in commerce from three to six times its weight in gold Whether the leaves have enough of the oil in them to pay we are not aware, but as the subject is thought of, the following information from the *Scientific American* will be interesting:

The most delicious of all perfumed essences is obtained by the simple distillation of rose leaves. The most favorable country for the production of the most highly scented roses is the middle of European Turkey, at the base of the southern slope of the Balkan mountains, where the roses are grown in localities where they are protected against all winds except from the south; and the flowers thus attain a luxuriance in perfume and in growth, as well as in size, of which those who have not visited these regions can hardly form any idea.

The town of Kezanlik, situated in the province of that name, is the center of the field of cultivation and distillation of the rose leaves. The leaves are gathered all over the province, which is 40 miles long, and is watered by the river Thungha and the many mountain streams which discharge into the same, furnishing the water necessary for the distillation. To give an idea of the extent which this industry has attained we need only say that there are in that province 128 different villages of which the inhabitants are all employed in the culture of the beautiful flowers. These all live in peace together, Turks and Christians; and they prosper, having become wise by experience, finding that it is better to work than to waste time in religious or political quarrels.

Almost all the country is occupied by

Rose Plantations,

And only a comparatively small portion is devoted to raising rye and barley, for the subsistence of the inhabitants and their cattle. The rose grows best on those parts of the slope where the sun shines most, and which is the least northern in exposure. A light soil is best; and the planting is done during spring and autumn, in parallel ditches three inches deep and five feet apart. In these ditches shoots from old rose trees are laid; they must, however, not be cut from the tree, but torn off, so that each shoot has some portion of the root or bark of the root adherent. They are then covered with earth mixed with a little manure. If the land is horizontal, and a mountain stream can be diverted so as to inundate it, this is done so as to hasten the growth; at the end of six months, shoots are seen coming up all along the furrows, and at the end of one year these shoots are three or four feet high, forming regular hedges. At the end of the second year roses appear, but not in sufficient abundance for them to be gathered. The gathering is commenced in the third year, after which they produce largely, the hedges being, at the end of five years, six feet high. The bushes produce flowers until fifteen years old, when the field is worn out, and must be plowed up. They do not prune the rose bushes at all, as we do, but they cut off every year, in the late fall or winter, the dead branches. The

Great Harvest

Commences about May 15th, and lasts until June 5th or 10th. The gathering is done daily in the morning before sunrise, and the distillation is finished before 12 noon, so as to have the benefit of all the freshness of the flowers,

Continued on Page 418.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is in Davis street, north-east corner of California.

Grange Directory.—A full list of Subordinate Granges, Masters and Secretaries, of California and Nevada, is published as often as once a quarter in this department. See issue of Sept. 23d for latest insertion

P. of H.—Subscribers who pay fully one year ($4) in advance for the Pacific Rural Press can receive the California Patron *free*, or other premiums. See our premium list in another column.

Worthy Lecturer's Visits.

Editors Press:—Again in the lecture field, I feel like dropping you a few items hy the wayside. On Tuesday, the 12th of December, I addressed the Grange at Petaluma, there heing many visitors from Santa Rosa, Bennett Valley and other Granges, a large attendance was present and a most interesting time. The Grange movement here showod no signs of death having set in or that the new features that in a business point of view are to give it life snd complete sucoess were in any degree wanting. All here are alive to the uew movement, and greeted the Lecturer with resolutions of determined success. "So mote it be."

From Petaluma I went to Napa and there addressed the Napa and surrounding Granges in attendance on Thursday, December 14th. Here is a field for more labor than addressing a single Grange as a center of several other Granges. There was such a call from the Granges at St. Helena and Yountville and Vallejo, that our State Secretary must appoint, at some future time, Grange meetings for the State Lecturer in these places.

From Napa I went to Rockville, where I found Suisun and Rockville Granges (now consolidated) out in full force and with a zeal that I wish could he found in all the Granges of the State. You will hear of nothing less from Rockville and Suisun Granges consolidated, hut earnest, determined work. There will be no holding back in assessments of either dues or stock in the business or other associations. They are truly alive and doing good work and ready to take hold of the new movement to make of the Grange that which it must become sooner or later to the agriculturist, the precursor to the solution of the great question of capital and lahor, and in so doing the farmers' great safeguard against all sggressions from middlemen.

From Rockville I reached Elmira in time to be with the Grange there, visited by Grangers from Vacaville, Buckeye, Binghamton and other Granges, in closed meeting from 12 to 1½ P. M. Saturday, the 16th of December, and in open meeting from 2 o'clock to 4 P. M. The house was crowded heyond sitting room, many having to stand, filled up as it was by farmers and villagers to hear what the Grange State Lecturer had to discourse to them. Here we had a lively time—all life. No lack of working interest, all in great earnest for the Grangers' great future, aud all anxious to do their part in the great work. So the work goes on, not dead but in many places most earnestly alive, while in some others they are waiting for the new movement.

Let us take courage; the work is growing, if not rapidly, surely and practically with a view to no more mistakes, but a successful issue, and great will be the product thereof, to Grangers first and to the whole industrial world. Instead, therefore, of discouragement, the working bees are all alive and promising a rich and fruitful result.

From here I go to Woodland, Sacramento, Yuba City and Chico, which will end my labors for 1876, but only to hegin at Haywards on Wednesday, the 3d of January, 1877, and from there to Livermore, Stockton, and so on, as per programme in your greatly assisting organ, at which places and times I solicit from the different Granges a good turn out.

B. Pilkington, W. S. L.

Woodland, December 18th, 1876.

Petaluma Grange.—Freeman Parker, Secretary, furnishes the following account of the anniversary celebration of the Petaluma Grange to the *Argus:* Monday, December 4th, was celebrated as an anniversary by Petaluma Grange in a manner hefittiug a young Order, full of high hopes and lofty purposes for the future. The forenoon was devoied to various instructive exercises, both musical and literary, closing with a very interesting address by the Master, W. W. Chapman. The tables were loaded with a great variety of tempting edibles: the only drink used was tea, coffee, milk and water. It is thought by some that such liquids are not apt to craze the brain, or furnish much boisterous enthusiasm, so the celebration was quiet, sensible, orderly, pleasing and profitable to all. After dinner was over and the tables removed, dancing was indulged in, but was not as satisfactory in all respects as it might have been had we not been disappointed in our music; as it was we had to temporize our music, and snbmit to a little inconvenience. The large gathering dispersed to their respective homes about sundown, anticipating other similar occasions in the future.

The Watsonville and Pajaro Grange Consolidation.

Editors Press:—It may not have heen generally known, even among Patrons of Husbandry, exoept to a fow familiar with the statistics of the Order, that there were two Granges which met and held their separate sessions in the town of Watsonville, neither of them claiming that its geographical territory extended heyond the limits of the Pajaro valley. Both of these Granges thought that their separate existence, if not a neoessity, was nevertheless dictated by a wise polioy. For the membership of each, respectively, were supposed to be the residents of the different counties of Santa Cruz and Monterey. And though all were, in a general sense, residents of the Pajaro valley, and separated only by the Pajsro river, the county line, and this simple watery line constituting the only discernible difference, yet it was supposed that the difference of citizenship might superimpose some possihle condition of interest incompatible with an identical membership. Acting, therefore, upon these impressions, the two organizations were formed, and being composed of the hest agricultural element of tho valley, they have exerted a healthful and controlling influence upon the social and material interests of this valley. But as nothing in the experience of either Grange justified the idea of a necessity existing for the separation of the two, and so much of similarity of purpose, methods and results characterized their respective works, they became convinced of the propriety and expediency of a union. But how to accomplish it—which or who was to make the propositions and take the first step to this end, was the prohlem. It was finally accomplished by a proposition to unite in the hire of the same hall, (each hitherto occupying separate halls). A committee of conference was appointed by each Grange, which resulted ia a mutual recommendation of union. A day was appointed, and the two Granges met and after careful deliberation the Pajaro Grange agreed to surrender its charter, as it was more appropriate to do so, coming from another county, than for the Watsonville Grange, which existed in and held its sessions in Santa Cruz county. The work of uniting the two Granges was completed on Nov. 25th. Both Granges assembled almost their full membership to consummate this pleasant union. All their deliberations and acts were perfectly harmonious, and after all the work of union had been completed, they sat down to a sumptuous harvest feast a united Grange. On Dec. 2d the consolidated Grange held its first annual election of officers, with the following result: Wm. Hudson (Pajaro), M.; Mr. Ripley (Watsonville), O.; M. E. Tuttle (Watsonville), L.; D. Tuttle (Watsonville), C.; A. Roach (Watsonville), S.; A. Kern (Pajaro), A. S.; O. Tuttle (Watsonville), T.; J. Roadhouse (Pajaro), Secretary; B. Dehart (Watsonville), G. K.; Miss L. Roadhouse (Pajaro), Ceres; Mrs. Wren (Pajaro), Pomona; Viola Ferguson (Watsonville), Flora. In its present united form, we may hope great things from the Watsonville Grange, for oonsidered in regard to its geographio position, its surrounding wealth, as well as the wealth of its own membership, it is one of the most important in the State. C. N. W.

Watsonville, Dec. 12th, 1876.

National Ranch Grange.

Editors Press:—I hope to see the interesting department of Grange news revived, now the Patrons' "Fourth" is passed, for to me it is one of the most attractive features of your excellent paper; and knowing that others are equally interested in this department, I gladly contribute my share for the common pleasure.

Our hall, on the evening of the 4th, was beautifully decorated, as only California halls can be in "bleak December," with evergreens and flowers. Two 20-foot tables were loaded with such good things as are only found at farmers' festivals. We did not allow our guests, 100 in number, to contemplate the tempting sight long, for we have found that an early supper at the hall is far hetter than a late one. It obviates the necessity of hurrying through with the last meal at home to be at the hall in season, and, besides, a good meal puts all in good humor and a frame of mind to enjoy the following exercises.

After supper came music, instrumental and vocal, original essays, select readings and recitations and impromptu speeches, in which all did themselves credit.

One great attraction to our visitors was a table at the end of the hall covered with fruits, which, as remarked by a gentleman present, would have graced the Centennial. And when it was remembered, as all present were aware, that seven years ago there was not a fruit tree on National ranch, it was a matter of pride and congiatulation, this exhibit of huge clusters of magnificent oranges, lemons, limes, apples, surpassing in size any we had seen elsewhere, pears, olives, guavas, grapes, quinces and almonds, all of superior size and quality. The day is in the past that any resident of San Diego county can believe the oft-told tale that we have no "back country," and what we have is only fit for grazing purposes. Resolution, perseverance, hard work and some cash will convert our hillsides and valleys into gardens of beauty, bloom and fruit, as quickly as any other portion of the State.

Our Grange increases in numbers and interest, and, during the two years of our existence, we have held regular meetings every two weeks, and never heen under the necessity of adjourning for lack of a quorum.

A few weeks since we had the unexpected plessure of a visit from Mrs. Jeanne Carr, who gave us an admirable lecture on sgrioultural and domestic matters at the Centennial.

I read with interest an account of the Matrons' meeting of the State Grange. The Lady Assistant Steward's words cannot be too often repeated, "Matrons, stand hy the Grange, as it is the only organization through which equal rights are accorded to women." She has quite won my heart, and I oan only say that when such women as Sister Hannah Carr stand hy the Grange its success is assured.

We are waiting for the report of the State Grange, hut wait with patience, knowing the Worthy Secretary's work must be laborious indeed. Flora M. Kimball, Sec'y.

From the Granges.

Pescadero Grange.

Editors Press:—After a long silence on my part I will send you a few items from Pescadero Grange, which may be of some interest to our brother and sister Grangers elsewhere. I take great pleasure in reading the letters from the Granges that appear in the columns of the Press. As a fair correspondent said in one of her letters to your excellent paper, it is not right to receive so muoh good without giving something in return.

Pescadero Grange may be put on the list of live Granges; for nearly every meeting our hall is well filled with our brothers and sisters, who bring with them bright and happy faces, which tell you at once that they are always ready to speak a word in favor of the Grange movement, and ready to perform such work as may he assigned to them among the lahorers of the Grange farm. I will assure you that our Grange has not gone back in the dark or lost any interest in the grandest Order ever conceived. We have received, like almost every other Grange in the State, some as members in our Order who had no further object in view than dollars and cents, and failing to receive large returns for a small amount of labor, have lost all interest in and seldom attend Grange meetings, It may be just as well to let all such go, for we want none to stay with us who can see no good in our Order.

The State Lecturer remarked in one of his lectures before our Grange a few days ago, that the time had not arrived yet to expect any great returns, for we are now preparing the ground to receive the seed and would in due time reap the harvest that is sure to come.

At a meeting Dec. 2d, we held our annual election for the purpose of selecting a list of officers for the coming year. The election passed off with genuine harmony and good feeling, and the result of the day's work was the electing of a full list of officers.

On Nov. 25th we had the pleasure of listening to Bro. Pilkington, Worthy State Lecturer, who spoke an hour before our Grange in his happy, earnest style, telling us of the good he believes the Grange would accomplish in the end if the members of the Subordinate Granges would work with earnest determination for the good of the Order. I wish that every Grange in the State could receive a visit from Bro. Pilkington and hear him talk. I am sure it would intuse new life among the members, for the reason that he believes all he says. The State Grange did a good thing when it selected Bro. Pilkington to take the field as Lecturer, for such lectures as the one he gave before Pescadero Grange will result in much good.

A public meeting was announced to take place at Union hall, in the evening, and many assemhled there, where our Worthy State Lecturer spoke for upwards of an hour, his snbject heing, "The Future of the Grange."

Patron.

Pescadero, Dec. 16th 1876.

Consolidation.

Editors Press:—On December 6th the Suisun Valley and Rockville Granges consolidated under the title of Snisun Valley and Rockville Consolidated Grange, No. 9; postoffice at Cordelia; place of meeting, Rockville; Worthy Master J. R. Morris; Seo'y, A. T. Hatch, for the present term. On the same day the officers for the next year for the Consolidated Grange were elected, as may he seen in another column. Worthy Lecturer Blakey Pilkington's lecture was well attended and appreciated. A. T. Hatch, Sec'y.

Cordelia, Cal., Dec. 16th.

Stockton Grange.

Editors Press:—There will be a public installation of the officers of Stockton Grange, No. 70, P. of H., on Jan. 6th, 1877, at 11 o'clock A. M., and at 12 there will be a harvest feast. At half past one the W. Lecturer of the State Grange will address the members and friends present. All Patrons and friends of the Order are cordially invited to be present.

T. J. Stephens, Sec'y.

Temescal Grange.

Editors Press:—The installation of officers takes place on Saturday, Jan. 6th, 1877, at 2 o'clock P. M., at which all members are cordially invited to be present. It is the intention to make it a social reunion, and a good time may be expected. J. S. Collins, Sec'y.

Farmers and Grangers.

The large and enthusiastic meetings which greeted Bro. Pilkington, the Worthy Lecturer of the Stste Grange, at Petaluma, Rockville, Elmira, etc., to listen to his able exposition of the principles and objects of our Order, have encouraged and induced further appointments to be made for the winter months. Meetings will be held as follows:

Wednesday, January 3d	Haywards
Thursday, January 4th	Ellis
Saturday, January 6th	Stockton
Monday, January 8th	Linden
Wednesday, January 10th	Lodi
Thursday, January 11th	Galt
Saturday, January 13th	Roseville

Notice of a meeting at Livermore appeared in the Press of last week to take place on Thursday, tho 4th of January. But as the Master of that Grange will necessarily he absent on that day it is thought best to postpone it to a future day, and call one at the hall of the West San Joaquin Grange at Ellis to take place on the 4th.

It would he more satisfactory to me if I could consult the convenience of the Granges that are to he visited by the Lecturer, hut that course seems to he impossible, as half a dozen Granges might want him on the same day, and at widely separated places. The Granges will therefore excuse what would otherwise seem to be arbitrary appointments.

It is hoped that each Patron will exert himself to bring to these meetings not only the lukewarm brothers, but all farmers and others who are interested in the success of our Order, which is synonymous with the success and prosperity of our country.

Special invitations are extended to farmers who have heen skeptical of the heneficial effects of our Order, to attend our meeting and listen to Bro. Pilkington, an able and eloquent speaker.

It is hoped that when installations take place on the same day, the installation should occur in the forenoon and the speaking in the afternoon. Amos Adams,

Sec. State Grange.

Dec. 20th, 1876.

Lieu and Indemnity Lands.

Bro. M. Woodhams, of La Honda Grange, presented tho following preamble and resolution at the last meeting of the State Grange, which were referred to a special committee:

Whereas, The titles to the public lands of this State, known as "lieu or indemnity lands," are in a very disturbed and unsettled condition, and

Whereas, A large number of Patrons of Husbandry and other farmers have in good faith become actual settlers upon said lands, and whose titles are now seriously affected by this unsettled condition, therefore be it

Resolved, That a committee of three he appointed by this Grange to investigate this matter and report as soon as possible to this Grange or its Executive Committee some plan or measure by which the evil may be alleviated or corrected.

United Installation at Yountville.—The annual election of officers of Yountville Grange will take place at their hall on the second Saturday in January. St. Helena elects this month, and Napa Grange has already chosen officers. It is now proposed to hold the installation ceremonies of the three Granges at Yountville, on the last Saturday in January, and install the officers simultaneously. Prominent officers of the State Grange are expected to be present, a harvest feast will be given, and a pleasant and profitable occasion may he anticipated. A general invitation to the public is extended.—*Napa Register.*

In Memoriam.

SONORA GRANGE, No. 208, Tuolumne county:

Whereas, Our Grange has been called upon to perform the last rites of burial to our late lamented brother, Michael W. Brooks, aged 66 years, our first bereavement as a Grange, therefore he it

Resolved, That by this sudden dispensation of Providence, Sonora Grange has lost one of its most respected members, our sister one of the kindest and affectionate husbands, universally beloved for his many virtues and genial disposition. Taken from our midst without a moment's warning, his departure leaves not one enemy behind, but many who grieve as brother for brother. The loss to our Grange is a gain to the harvesters of that better land, where the feast eternal is forever spread.

Resolved, That we as a Granga extend our united and individual sympathies to our widowed sister, in this, her great bereavement and irreparable loss.

Resolved, That a copy of these resolutions be spread upon the minutes, a copy sent to our sorrowing sister, with assurances of fraternal regard, a copy sent to the Rural Press and Sonora papers for publication.—Committee: John Taylor, Samuel Purdy.

CONFIDENCE GRANGE, No. 121, Santa Barbara Co.

Whereas, It hath pleased our Divine Master above to select and call from our number to pass to a higher degree our respected sister, Maria O'Neil, Therefore he it

Resolved, That in the death of our sister Confidence Grange has lost a worthy member, her family a kind and affectionate wife and mother, and the neighborhood a much esteemed member.

Resolved, That we deeply sympathize with the family of the deceased in their hereavement; that this preamble and these resolutions be placed upon the minutes of the Grange, and a copy be sent to the afflicted husband and also to the Guadalupe *Telegraph* and to the Pacific Rural Press, with the request that the same be published.—Committee: Mrs. T. Austin, Mrs. B. O. Walker, Mrs. W. W. Ayres.

Election of Officers.

ALFALFA GRANGE, No 1, NEVADA. Election, December 9th: J. W. Smith, M.; T. W. Norcross, O.; J. C. Haynes, L.; A. A. Longley, S.; J. W. Boynton, A. S.; George Deremus, Treas.; A. Banta, C.; E. C. McKenney, Seo'y; A. M. Lamb, G. K.; C. B. Norcross, L. A. S.; H. F. Hatch, Ceres; F. H. Smith, Pomona; H. S. Bsnta, Flora.

EDEN GRANGE, No. 106, ALAMEDA Co.—Election, Deo. 9th: L. Perham, M.; O. Dennis, O.; T. Hellar, L.; J. McDermedt, S.; J. Webster, A. S.; D. D. Mann, C.; J. Marlin, T.; Miss Josie Sharai, Sec'y; S. Hellar, G. K.; Mrs. S. Dennis, Ceres; Mrs. Charlotte Wood, Pomona; Mrs. F. Anway, Flora; Mrs. W. Knox, L. A. S.

GOLDEN GATE GRANGE, No. 266, SAN FRANCISOO.—Election, Dec, 20th: J. D. Blanchar, M.; F. McMullen, O.; A. W. Thompson, L.; J. R. Read, S.; Frank Wolf, A. S.; T. J. Brooke, C.; J. P. Jones, G. K.; F. K. Rule, T.; Mrs. J. R. Read, Sec'y; Mrs. M. J. Blanchar, Ceres; Mrs. J. Earl, Pomona; Miss Rosa Saul, Flora; Mrs. A. W. Thompson, L. A. S.; For Trustees, Messrs. Frank Cressey, J. Earl and F. K. Rule.

GRAND ISLAND GRANGE, No. 22, COLUSA Co.—H. D. Strother, M.; M. Eddy, O.; J. Hearn, L.; Wm. Ogden, S.; E. Potter, A. S.; P. A. Earp, C.; J. Welsh, T.; J. C. Wilkins, Sec'y; C. C. Hicock, G. K.; Mrs. A. J. Walpool, Ceres; Mrs. C. Graham, Pomona; Mrs. M. Gleason, Flora; Mrs. M. Strother, L. A. S.

NAPA GRANGE, No. 2, NAPA, CAL.—Election, Dec. 9th: M. Eyre, M.; S. Eaton. O.; J. L. Marshall, L.; H. Knief, S.; J. F. Knief, A. S.; E. W. Robinson, C.; J. W. Ward, T.; H. W. Haskell, Seo'y; H. Goodrich, G. K.; Miss Ida Goodrich, Ceres; Mrs. C. Plass, Pomona; Miss Mary Eaton, Flora; Mrs. S. Eaton, L. A. S.

PESCADERO GRANGE, No. 32, SAN MATEO Co. Election, Dec. 2d: I. C. Steele, M.; J. H. Osgood, O.; W. G. Thompson, L.; Mrs. B. Hayward, C.; Charles Burch, S.; J. C. Fritch, A. S.; B. V. Weeks, T.; E. Leighton, Seo'y; Mrs. M. J. Leighton, G. K.; Miss Ellen O'Brien, Ceres; Miss Angie Burch, Pomona; Miss Hattie Honsinger, Flora; Mrs. Ellen Burch, L. A. S.

PETALUMA GRANGE, No. 23, SONOMA Co.—Election, Dec. 9th: W. W. Chapman, M.; Allen Roseburg, O.; T. C. Putnam, L.; M. D. Hopkins, S.; C. D. Grover, A. S.; D. S. Dickson, C.; D. G. Heald, T.; Freeman Parker, Sec'y; H. Chnrch, G. K ; Mrs. Elizabeth Chapman, Ceres; Mrs. D. S. Dickson, Pomona; Miss Mary Warren, Flora; Mrs. Eliza Grover, L. A. S.; Theodore Skillman, Trustee; Albert S. Hall, Financial Seo'y.

POINT OF TIMBER GRANGE, No. 14, CONTRA COSTA Co.—S. N. Wills, M.; I. Huey, O.; Vernon Taylor, L.; Thomas McCabe, C.; C. J. Preston, S.; Volney Taylor, A. S.; A. Richards, T.; G. W. T. Carter, Sec'y; C. Carlton, G. K.; L. Plumby, Ceres; M. A. Jaquillard, Pomona; Josephine Hackler, Flora; Ellen Carter, L. A. S.

SONORA GRANGE, No. 55, TUOLUMNE Co.—Eleotion, Dec. 9th: Robert F. Williams, M.; J. F. Ralph, O.; John Taylor, L.; E. N Twist, S.; S. B. Allen, A. S.; Wm. Kelly, C.; Alfred Smith, T.; J. W. Purdy, Sec'y; R. M. Chenoworth, G. K.; Mrs. Mary Blackburn, Ceres; Miss Florence Kelly, Pomona; Miss Emma Wood, Flora; Mrs. Mary Allen, L. A. S.; Geo. C. Soulsby, Trustee.

SUTTER MILL GRANGE, No. 179, COLOMA, EL DORADO Co.—W. H. Valentine, M.; Wm. Stearns, O.; J. G. O'Brien, L.; Albert Mosely, C.; Francis Veerkamp, S.; G. W. Ramsey, A. S.; E. M. Smith, T.; H. Mahler, Seo'y; Wm. Hooper, G. K.; Mrs. M. J. Stearns, Ceres; Miss Rosa McKay, Pomona; Miss M. Kesselring, Flora; Mrs. L. J. Valentine, L. A. S.; Robert Chalmers, Trustee.

SUISUN VALLEY AND ROCKVILLE CONSOLIDATED GRANGE, No. 9, SOLANO COUNTY. Election, December 9th: H. D. Tisdale, M.; R. C. Haile, O.; H. N. Foster, S.; Ellen Cannon, L.; J. M. Baldwin, T.; A. T. Hatch, Sec'y; J. McMullen, C.; H. Martin, A. S.; S. Babbitt, G. K.; Alice Edwards, Ceres; Amelia Barbour, Pomona; Amanda Russell, Flora; Julia Kemball, L. A. S.

TEMESCAL GRANGE, No. 35, ALAMEDA Co.—Election, Dec. 16th: Thomas Yolland, M.; P. H. McGrew, O.; Mrs. S. A. Webster, L.; T. J. Simpson, S.; Wm. Kennedy, A. S.; J. W. Crawford, C.; L. Frink, T.; J. S. Collins, Sec'y; C. Bagge, G. K.; Kate H. McGrew, Ceres; Emily Bagge, Pomona; Eleonora Bagge; Flora; Nellie G. Babcock, L. A. S.; Mrs. S. A. Webster, Orgsnist; J. V. Webster, Trustee for three years.

VACAVILLE GRANGE, No. 5, VACAVILLE, CAL.—Election Dec. 9th: J. M. Elliott, M.; W. B. Davis, O.; C. Wells, L.; Geo. Brown, S.; Wm. Jepson, A. S.; Mrs. Mary Williard, C.; James R. Rodgers, T.; A.P.Coburn, Sec'y; Miss Jennie Wells, Ceres; Miss S. Elliott, Pomona; Miss Clara Davis, Flora; Miss Mary Wells, L. A. S.

NEW GRANGE.—Application has been received from citizens in Phœnix, Arizona Territory, for a charter for a Grange at that place. The application was immediately forwarded to the Secretary of the National Grange, from whom a dispensation will in due time be forwarded to the applicants.—*Cal. Patron.*

LATE advices report a threatened revolution in the Sandwich islands.

AGRICULTURAL NOTES.

California.

ALAMEDA.

DITCH.—Sunol Cor. Washington *Independent:* Mr. Charles Hadsell'e irrigating ditch, under the engineering of Mr. Scowden, is nearly completed. Mr. Scowden has proved himself a perfect master of his undertaking. The ditch is a mile and a quarter long, five feet wide on the bottom, with the average walls of five feet wide, at an angle of 45 deg. There is no doubt but Mr. C. Hadsell's great enterprising spirit in this, as well as in his other creditable enterprises, will be greatly remunerative. If more of our wealthy people in the country were of his spirit it would be a great blessing to the people generally and a paying investment to themselves.

STONES ON THE HIGHWAY.—Some days since a fine horse passing over a public road a few miles from here was seriously injured by stepping down rapidly and forcibly upon a loose stone on the highway. There are hnndreds of them lying in every direction on all our public roads. At night they are liable to do great damage, and when we see so many scattered about we can only wonder that more damage is not done than actually occurs. We see not why a very little more pains might not be taken by the road overseers—and then all these stones would be cleared away, and the safety of the roads be very greatly improved thereby. This is an improvement that would benefit everybody—since everybody has to travel more or less on these roads.

FRESNO.

IRRIGATING CANALS.—*Republican*, Dec. 16: Charles H. Bairett, engineer in charge of the irrigation ditches of W. S. Chapman, both at Borden and near Fresno, is now constructing one of the most complete systems of irrigating canals ever built in the State. The main canal, carrying water to the Central Colony, is 30 feet wide on the bottom, with an undoubted capacity of 75 cubic feet of water per secoud. A uniform grade of two and-a-half feet to the mile is established by a series of drops or bnlkheads, and the whole is being constructed in the most systematic and substantial manner. At the easterly line of the colony lands the canal is divided into three main channels, from which distributing ditches are taken, passing through the entire length of the colony grounds, three miles, and again uniting in one large channel which carries water on to lands further west. The system of irrigation now being constructed here is worth a visit from any one interested in the subject of irrigation.

FARMING.—*Expositor*, Dec. 13: At present farming is practically at a standstill. The ground is too hard and dry to plow to advantage, and the result is that farmers are getting somewhat diecouraged. Grain that was early sown, and the grass also, are suffering very much from the drouth and the extreme cold. If rain comes in abundance this month everything will go on swimmingly, otherwise we shall have to look to the irrigated lands for a crop this season. As yet, however, we see no reason for deepondency.

KERN.

BUENA VISTA CANAL.—*Courier*, Dec. 16: On the work of the west side, or Buena Vista canal, the force has been increased to 208 men and 325 horses, exclusive of teams and drivers on the road, hauling lumber and supplies. The original plan of a canal 120 feet has been enlarged to 150 feet in width. About one mile has been finished through the deepest cut, of about 10 feet. The management ot Mr. S. W. Wible is spoken of as most efficient and thorough, everything going on like clock work.

COTTONWOODS.—Now is the time for transplanting the willow and cottonwood for fence poets. It is not nnusual to see long rows of stakes, intended for trees, with a top to them, which have grown a few feet and died. They were transplanted too late, when the sap was up and the buds starting. There would then be sap enough in the stalk to start the branches, which would grow lnxuriantly a few feet in hight without a single root forming at the bottom. When cut in the fall they may be left with impunity lying on the gronnd for weeks without suffering from it. Every farmer should see that his enclosure along the highway is lined with these trees, even where the fence is not constrncted of them. There is no way of so cheaply adorning the farm. The better length is eight feet. Where the posts are longer, the epronts at the top being far from the root, and the heat of the sun having more surface exposed to it, the growth is checked, and often the tax upon the sap of the tree is so great that the side exposed to the sun is burned and dies, leaving but a narrow strip of bark on the shady side to support it.

LOS ANGELES.

AGRICULTURAL CONDITIONS AND PROSPECTS.—*Herald*, Dec. 16: With the exception of a trifling shower, we have had no rain in Los Angeles this fall and winter. It is too early yet to say that we shall have a dry season. When the rains are delayed till Christmas the rainfall is nearly always satisfactory in volnme. Bnt all signs fail in California, and we may not be called upon to report a very heavy rainfall this year. However, as we have frequently said, more money is made in Los Angeles in a dry than in a wet year, owing to our unlimited facilities for irrigation and to the great quantities of moist lands to be found here. The present year we had unprecedented orops, exceeding our usnal average by nearly one-half; but, as the prices were bad, we doubt if our farmers have reslized as much net money as they did the year before, when the rains were very moderate. It is possible that the opening of the Arizona markets, by the extension of the Southern Pacific, will change this, and result in a remunerative demand for all our surplus products. Los Angeles county has at last established her title to being a reliable wheat producing section. We have obtained considerable eclat by the shipment direct to Liverpool of two large shiploads of this important staple. Our farmers should see to it that the example of the Messrs. Lankershim & Van Nuys, in the San Fernando valley, is extensively imitated. We are glad to note that the raising of pork is receiving the attention of our farmers of late. Considering the prolific yield of our corn lands, and the fact that a single acre of our moist soil often produces as high as 40 tons of pumpkins, we should be the banner hog county of the Pacific slope. Los Angeles has almost completed the transition from a pastoral to an agricultural county. We still have almost countless herds of sheep, and our wool product continues to head the list of all the counties of the State, but the farmer is steadily replacing the herder, and the change, when completed, will be a most profitable one.

NAPA.

THE BRANDY BILL.—Napa *Reporter*, Dec. 16: I arrived here on yesterday. To-day I called to see the new Commissioner of Internal Revenue in regard to the passage of my grape brandy bill, which is now pending before the Senate. I laid all the papers before him, and after presenting the facts relating to the case, he gave me much encouragement. I feel confident that the bill will pass the Senate at an early day.—J. K. LUTTRELL, Washington, D. C.

WHEAT.—*Register*, Dec. 16: Small lots of wheat are still coming in to Sheehy's warehouse on Main street. The warehouse is now nearly full, and the thickly piled sacks of wheat present a very comfortable appearance. Occasionally a farmer comes to get a few sacks for seed, but with this exception, no wheat has been removed from the warehouse since first stored.

SAN BENITO.

SQUIRREL LAW.—*Advance*, Dec. 16: The squirrel act is inoperative here at present. The work is suspended owing to the refusal of the inspectors to qualify before entering upon the duties to which they were appointed by the Board of Supervisors. It is, however, the duty of every person owning or occupying land within three miles of any cultivated field, to keep the land clear of squirrels, and it is only when they fail in this duty that the authorized agents of the public, called inspectors, are by law required to enter upon the land and destroy them. The cost and expenses incurred by this public agent in the prosecution of his duties must be paid by the land owner, or the land will be subject to a lien, which will not be removed until the costs are paid.

SAN JOAQUIN.

PEARS FORTY DAYS OUT.—*Independent*, Dec. 15: Peter Lesher concluded some time ago to put up a box of pears and ship the fruit to Mr. Bennett, of New York. The package weighed 68 pounds and was shipped as "fast freight," but it appears that it was over forty days and forty nights in reaching its destination. The fruit reached Mr. Bennett's hands, however, in good condition, which was doubtless in a great measure dne to the skillfnl manner in which the pears were packed. Mr. Lesher has had much experience in packing fruit for exportation, and is reputed to be an expert at the business.

SAN MATEO.

EDITORS PRESS:—Dry weather still continues; no rain since the last of October. The days are bright and warm, but mornings are frosty. Some of our farmers have been at work some time plowing and putting in seed, while others have not commenced to plow as yet. Mr. Orrin Brown, of San Mateo, who owns a large farm here, tried the experiment of flax culture, which proved a decided success. He sowed abous 200 acres, and as a result he got about 12 oentals per acre of clean seed, which certainly paid him well for his experiment. I understand that he has leased his farm to different parties who intend to sow principally flax this season. It has been demonstrated to a certainty that the soil and climate along this coast is adapted for flax cnlture, and more attention will be paid to its cultivation in the future.—E. L.

SAN LUIS OBISPO.

POTATOES.—*Tribune*, Dec. 16: A lot of 16 potatoes received from Mr. Hugh Isom, of Morro, weighed 44 pounds, being an average of 2¾ pounds apiecc. The size of them was so uniform that no one could say with a feeling of certainty which was larger or smaller. These were a sample of the product of six acres raised on the rich Morro bottom near Mr. Isom's house.

SONOMA.

MORE NORMAN HORSES.—Petaluma *Argus*, Dec. 16: H. Mecham, of this city, received a letter from James A. Perry, of the Riverview stock farm, Wilmington, Ill., stating that he would arrive at Petaluma, this (Friday) night, with a stud of six Norman draft stallions, five of which are imported. Among the other horses that Mr. Perry is bringing with him is the Duke de Chartres, that was awarded the highest prize for Norman draft stallions, at the Centennial exposition, at Philadelphia.

BLACKBERRIES IN DECEMBER.—C. A. Nichols, who has leased the Harmon ranch, two miles west of Petsluma, brought into our office on Monday a bunch of blackberries, perfectly ripe, picked from the vines that day. The fruit was ripened out doors, and was large and well matured. Who would not rather live in a country where they can pick blackberries instead of icicles in December?

FORESTVILLE.—Sonoma *Democrat*, Dec. 16: Forestville forever! We are almost persuaded to believe that we are living on some tropical island, for we see barley in what is called the dough state on Mr. Davis' ranch, apple trees in bloom on Mr. Oliver's place, and a hay-rake in the shop of Oliver & Harbin, for repairs. Whether the rake has been used recently for hay-making I could not say. It looks rather late in the season for that business, but I would not be surprised at anything in this part of the moral vineyard.

FOWLS POISONED BY LEAD.—A farmer near Santa Rosa lost a number of valuable fowls. He determined to examine and see if he could not find out the cause of the mortality. In the gizzard of one pullet he found 26 No. 4 shot, and in another he found three pieces of lead equivalent in weight to three buck-shot. He believes that they were poisoned by the lead, and that very often an otherwise unaccountable mortality in all kinds of fowls may be traced to this cause. It would be well for those interested to look into this matter, and be careful about dropping shot or lead in any form about their poultry yards.

SUTTER.

AGRICULTURAL PROGRESS.—*Banner*, Dec. 16: The gambling spirit is slowly dying out. Farming is becoming a fixed business and the specnlator farmers, who went into it in the same manner that they went into mining, are giving place to men who look upon it as a life-long occupation, and who understand the business. Our inflowing population is mainly of the class that is satisfied with making a living and laying up a little for the future by hard work and economy. The agricultural counties are steadily growing in population, while those devoted almost wholly to mining are as surely falling back. All this points unerringly to the conclusion that our future importance depends upon what our farms and orchards and pastures produce, rather than to the gold that shall be dug from our hills. It points to the conclusion that capital will hereafter seek investment in more legitimate channels, and that legislation, heretofore swayed almost exclusively in the interest of mining, mnst now be shaped to favor the paramonnt interest of the country. We have existed so far in, the contemplation of the Government of the United States, as a country where all the world may come and tear up the face of the earth in search of gold. It is getting to be faintly understood at Washington now, that there are rivers and harbors on this coast valuable to commerce which must be improved and protected from destruction; that there are large tracts of land here more valuable for agricnltural purposes than for dumps on which to deposit the waste material of the mines, and that, on the whole, the entire duty of the Government is not discharged when it has made the acquisition of mining property easy. In saying this we do not mean to be understood as underrating the value of the mines. We are simply stating a patent fact: that whatever they may have been in the past, they are now of secondary importance.

VENTURA.

THE COMING SEASON.—*Press*, Dec. 9: The work of putting in the grain crop for the coming year is being pushed steadily in nearly all sections of the county. A large number of men and teams have been employed for over two months past in the Santa Clara valley putting in grain with chisel cultivators, in order that it may receive the full benefit of all the rains. On the Conejo and in the Ojai valley the farmers are using every endeavor to get their wheat in before the first rain. Great preparations are making to seed a very large area of new land, and, if the season be propitious, as they generally are when the rains hold off until late, our grain crop the coming season will considerably exceed half a million centals.

YOLO.

GRAPES FOR HOGS.—*Mail*, Dec. 16: Mr. R. B. Blowers informs us that he bought 84 hogs the past season and turned them into his vineyard, where they remained four weeks. He then sold them at the same rate per pound, and netted $150. It would seem from this that grapes are valuablo as food for hogs, and that many of our farmors who are destroying their vineyards on account of the low price of grapes in the market, might make a little money in fattening hogs. At any rate it is worth trying.

WILL IT RAIN?—EDITORS PRESS:—Weather prophets are puzzled to divine what may be in store for Yolo in regard to rain-fall. Opinions are various and each believes himself. It is claimed on the one hand that we shonld receive one-half the annual rain-fall before Christmas, and as that is but eight days hence it is doubtful whether the desired quantity will be vouchsafed ns. Others maintain that we are indebted to the late spring rains for a generous yield of wheat, and that this holding off so late in the autumn is the best indication of the later rains. There is complaint that the land is still too dry for plowing, though farmers are busy throughout the county preparing the soil and sowing grain. We can only wait and see.—J. J. NICHELL.



Light at Last.

A Tale for Christmas Time.

[Written for the RURAL PRESS by HECTOR A. STUART.]

A Stormy Christmas.

A storm of wind had blown all day from the northwest. As evening closed it increased in violence and by nightfall blew with a fury rarely known even on that coast of storms—the coast of Newfoundland. On a point to the eastward of St. Johns, near the lighthouse, stood a small cabin—the home of an honest fisherman, his wife and only son. James Baines, the latter, was a true type of the hardy fishers of that storm-beaten region. Like his father he was a fisher from boyhood. A boat was his cradle and the winds his lullaby. He was taught to fear naught but God, to brave danger, toil industriously and follow the strict tenets of the Scotch kirk. Reared in this manner he was in every respect a man: bold, industrious and God-fearing. The father saw in him a worthy follower of himself, and his mother, with a deeper feeling, almost idolized him—proud in her simple, yet earnest nature of his manly attributes; foreseeing also in him her stay and glory in mature age. In truth, James Baines was a noble fellow, and right well did he merit the love of Ellen Bask, the daughter of an old couple who tended the beacon upon the hill.

Ellen Bask was a girl whom the noblest man on sea or land could love with honor. She had inherited a goodly share of her mother's charms (in her young days the beauty of a Highland village, famous for the comeliness of its lasses), and to these added a quick wit, refined nature and an amiability of disposition not often found among those of her sex blessed with exterior graces. She was withal rightly bred and the softening influences of piety gave an increased interest to her character, like the rays of a golden sunset on a lovely landscape, mellowing and subduing all into one scene of softened splendor.

Such was Ellen Bask, at this time in the bloom of maidenhood, and though of retired manner and wont to mingle little with the youth of her native place, her dark eyes had already brought more than one suitor to her feet. But one only received her favor, James Baines, the hero of our story.

We pass over the period of courtship and introduce the lovers pledged to wedlock and only waiting the passage of a few weeks before entering upon that hallowed state. But human plans are ever apt to change; man forms while a higher power often thwarts his combinations.

Among those who were suitors for the hand of Ellen was a young man called Nat Gibson He was the youngest of three sons who owned "old Nat Gibson" as their sire, and who certainly had little to boast of in their parent. Of old Nat dark tales were told; his youth was cloudy and his manhood passed as a wrecker. Many a false light had he been known to kindle, and many a goodly ship lured to destruction—aye, and graver deeds were hinted, but we pass them over, being alien to our theme. It is enough to know that he was schooled in crime, that his heart was dark and his spirit evil, and that though an humble fisherman he was ever on the alert for mischief and prepared to engage in any enterprise that promised a hope of reward. His wife, a woman worthy of being his mate, had died several years before; the elder son had been lost at sea; the second met a violent death in a drunken brawl; the third remained the old man's sole companion in a hut under the ledge of a cliff, on whose brow stood the lighthouse. On this wild night—this Christmas night, 25 years ago—the father and son sat in their rude dwelling, sullen in look, yet animated in conversation.

"I tell ye, lad," said the elder Gibson, drawing a match almost ferociously across a piece of sandpaper near the fire place and lighting an earthen tobacco pipe, "I tell ye, lad, it's your last hope. Ye want the girl but canna get her wi'out some bait. Ye hae na money."

"Neither has James," answered the son, who sat moodily near the hearth, striking an empty pipe on the rum keg which served him as a chair, "he is as poor as I, yet Ellen loves him."

"Woman's fancy, lad, easily overcome if ye hae the right lure. Ye must hae money, Nat."

"That's so; but I cannot make it fishing."

"Sa ye canna; na mair can James—but he's a bold lad an's gawin' awa' to Californy to mak' his fortin'. Canna you do likewise?"

"I can," exclaimed the young man with energy, "I am as brave a lad as James, and can go as far into danger."

"Well said," cried the old man with a chuckle, "ye've a touch of ye'r father's spirit, boy. Trip lively and bear away."

"I'll mate him as he stretches out," was the answer, followed by an oath. "James Baines will have Nat Gibson on his beam day in and night out and—"

"Time will show which is the better man," said the father, finishing the sentence and clinching it, as was his wont, with a roll of smoke, which, curling round his head, gave a sort of spectral look to his sinister countenance.

"Aye, aye," answered the son, "time will tell; give me fair sea room and a steady luff and I will hold my own."

"Yes, and you will get Ellen, too. But mark ye, boy, James must never come home." The father said this in a husky voice. The son drew back; his eyes met his father's; one glance sufficed to read their language. He shuddered

"He shall *not* come home," was the answer. As he spoke a gust of more than ordinary wildness passed over. The hut rocked and a rusty sword suspended over the fire-place fell to the floor. The two men started, glared at each other, and simultaneously muttered: "A bad omen;" then, as if ashamed of their superstition, laughed sardonically, the younger picking up the sword and the elder bringing out a bottle of spirits from a locker and tossing off a dram. His example was followed by the son, after which they resumed their seats and, reloading their pipes, fell again into conversation.

"Yes," drawled the father, "James must *not* come home. Out of sight, out of mind. Ellen will soon forget him once he's gone, and, woman-like, be ready for another offer. If ye hae siller, Nat, ye mun be lucky. It's the jingle o' coin that wins a woman."

"And coin I'll have," answered the son, "if I risk life for it. I have wooed Ellen as a poor man; I will win her as a rich man. I will buy with money what I could not get by affection. Once mine, I will lead her a rugged life; aye, she will rue the day she scorned Nat Gibson."

The young man pronounced these words with energy, while his face betrayed the workings of his soul. A wierd light sparkled in his eyes, and his aspect was so demon-like that even his father cowered. Yet he exulted in his son, and with a hoarse endorsement of "Bravo, Nat! there's mettle in ye after all," passed the bottle and signaled him to drink. The son drank and was in turn followed by the father. The conversation was then resumed and maintained till the increasing fumes of the liquor produced stupefaction, when first the father and next the son fell asleep.

On this Christmas night a different scene was visible within the cot sheltering old Baines the fisherman, his goodly wife and stalwart son. The evening meal had been finished, the tea things washed and laid along the dresser in shining rows, the pine table drawn down to its accustomed place against the wall, the lamp lit, the door barred and with a new log cast upon the fire, the little household, grouped before the blaze, prepared to beguile the hours ere retiring for the night.

Sadness was upon each face. The hearts of the three were heavy, for the son was soon to be a wanderer—an exile from his land and home. He was to go abroad, cross the seas and round the stormy cape in a wild chase for fortune. As the readers is already aware, he was destined for California.

Gold had been found in that far-off land. The story of its vast abundance had stirred the cold blood of the northern fishers, for lucre effects all men, and the boldest were eager to quest a portion of the golden deposit. James was among these. He was of an adventurous spirit, longed to see the world, and also longed to better his condition. The life of a fisher has little enticing. The bread that sustains it is hardly won and in its gaining life is often jeopardized. He also desired to see Ellen improved in circumstances. This could not be while he toiled for a pittance. He must change his course, make a bold push and strike a fortune at a blow.

A determined man, once resolved he knew no faltering. His parents knew this also, and forebore to persuade, yet the downcast gaze of his father and the frequent sighs of the mother revealed their inward grief in a language deeper than words.

For a while the little household was silent, apparently musing on the storm without, yet busy with more solemn thoughts.

"'Tis a wild night," at length muttered the father, "I hope it ne'er forbodes ye ill, Jamie, in ye'r enterprise. Boot this is ye'r last Christmas here, and a wild one, forsooth."

A tear glistened in the eye of the mother, and she cast an anxious glance on her son. The young man roused from his reverie, and spoke cheerily—

"Never fear, father, a little bluster bodes no ill, and I don't think nature would grow so rageful just to warn Jamie Baines that he was going on a dangerous venture. No, father, I am not of sufficient worth to cause such a dispensation, so ye can rest easy on that score. I, myself, have no fears. I trust in Providence."

"May ye ever do sae, Jamie," responded the mother; "ye'r safe wi' such a guide. Trust in God, and ye'll hae no reason to fear; neither man nor deil can harm we wi' such a protector."

"Well said, gude wife, yet for a' that Jamie may miscarry. Christians hae fallen by untimely blows. Stephen's faith would not save him frae martyrdom, and just men are reaped by death even as the unjust."

"'Whom the Lord loveth, he chasteneth,'" murmured the woman, with a quiver in her voice.

The old man bowed his head. He was about to reply, when a knock was heard at the door. There is sometimes a strange prescience in the mind when saddened by melancholy that seems like the spell of divination. The summons at the door filled the little group with a nameless terror. James started to his feet, and with a nervous hand drew the bolt. Two persons entered. One was Ellen, daughter of the light-house keeper, the other a seafaring man, tall in stature and stern in countenance. He had evidently been buffeted by the sea. His garb was rent in many places, his face and hands bruised and bleeding, while sand and sea-weed clung to his person. He had been piloted to the hut by Ellen, and in a few words stated the object of his visit—

"Aid to a castaway!"

"Where stranded?" asked Baines the elder.

"Down by the reef, near the foot of the light-house."

"What aid is needed? We are but two."

"Enough to man a boat unstaved on the beach. Three men will suffice."

Young Baines moved toward the door. A cry of anguish burst from the two women, they clung to him passionately, and begged him to remain. He hesitated.

"Come on, for the love of Heaven," cried the castaway, "souls are perishing while we idle here."

"Stay, Jamie," said the elder Baines, "I will go myself. I am auld, but my hand can turn an oar, and God save me from standing fast whilst souls are in distress."

"Come on," cried the wrecked sailor somewhat angrily. "Time is precious. Every second may peril a life. Come on!"

"Aye, aye," was the answer. Another moment and James Baines, the younger, was out in the storm, pushing towards the beach. He closed his ears to the cries of the tender beings he had left in the hut, and, nerving himself with appeals to Heaven, followed the castaway, who, with something like supernatural agility, led the way across the precipitous ledges that intervened between the hut and the sea shore.

The storm was terrible. The wind blew in great blasts that seemed to cut into the very earth, and rousing the sea to anger, that element displayed its wildest fury, breaking against the coast in deafening thunders, and seeming to emulate the deepest reverberations of the cloud-encumbered heavens. Rain fell in torrents and incessant flashes of lightning gave a sublime cast to the horrors of the hour. Yet the fury of the tempest was past, and when the two men reached the beach, it was evident that it was subsiding.

"Now for the boat," exclaimed the castaway in a decisive voice, as he laid hold of a boat lying under the lee of a point of rocks. "The ship still holds, we may save her people yet. Ho there! lend a hand here and get the craft afloat."

This command was addressed to a group of men who stood on the beach gazing upon a dark spot in a circle of foam near the mouth of the inlet. The dark spot was the wreck previously seen when the flashes of lightning illuminated the waters.

"Aye, aye!" was the response, and the boat, grasped by a dozen stalwart hands, was soon shot into the boiling surf—a place where the sea was less broken being selected for the launching. Three men formed the crew: James Baines, the castaway, and one whom James little thought to meet there, young Nat Gibson. Of the two James showed the most surprise; indeed the other seemed to be already aware that he was to form one of the party. But there was no time for reflection, as with the wrecked sailor at the tiller and the others at the oars, they labored through the seas on their mission of mercy.

After a toilsome passage they gained the wreck, which was crowded with people, all half drowned by the breakings of the seas. A line which the boat's crew had towed from shore was immediately made fast to a hawser and on this was a block reeved, to which was attached a grating of a hatchway, tackles being used to pull it to and from the wreck. This formed what is called a "traveler," and on this contrivance the shipwrecked people were transported to the shore. At length all were removed and as the wreck was breaking up the crew of the life boat were anxious to depart. The boat, which had been secured under the lee of the wreck, was hauled in. Nat Gibson sprang aboard and was followed by the wrecked sailor, but before James could do likewise, Nat shoved off. The wrecked sailor seized an oar to pull back; Gibson was seen to endeavor to prevent the proceeding, the boat mounted on the crest of a wave and a flash of lightning showed the two men engaged in a desperate struggle. The boat sank into the trough and they were hidden from sight. At the same moment the hawser parted, a tremendous sea swept over the wreck, crushing it to fragments and hurying James in its depths. He rose and, seizing a spar, clung to it, hoping the surge would bear him shoreward. But the tide was running out and as the wind was falling he was carried seaward. By daybreak he was far from land, drifting on the illimitable ocean. Still he did not despair, gloomy as was the prospect. He had picked up some pieces of topmasts with which he made a raft, and to this lashed himself. The storm had abated and the sea was becoming calm. He had a bottle of spirits and water in his pocket and a couple of fish entangled in the cordage of the masts were laid by against future need. He hoped to fall in with some vessel before driven to the extremity of devouring these scaly edibles; his chief concern being for the loved ones on land, who he justly thought would be crushed with grief at his untimely fate; for lost they must suppose him. His anguish at this reflection became at times insupportable; he feared not for himself, but that those he loved should grieve for him cut into his soul. In one of these paroxysms he uttered an exclamation of agony—an exclamation which has become sacred—the utterance of the keenest distress which has ever racked mortal or immortal. The last appeal of the incarnate man of sorrows in the crisis of his sufferings.

"My God, why hast Thou forsaken me?"

The cry of the sufferer on Calvary brought no visible response, but the voice of the sea-tossed mariner was answered by a shriek, as a sea bird passed over the raft. He looked up; a topsail shimmered on the horizon. Hope kindled. He regained courage. The vessel rose. Her canvass lifted, and at last her hull was in sight. She drew near. He hallooed He was heard. She rounded to; a boat was lowered and he was saved! The vessel was an English brig from London for the West Indies, blown out of her course by the storm. In her he was carried to St. Kits, where he dispatched two letters—one to his parents and the other to Ellen, informing them of the disaster which had befallen him, alleging Nat Gibson as its cause, narrating his providential deliverance and intention of pushing through to California. These letters were a year in reaching their destination; in the meantime James had crossed through Mexico from Vera Cruz to Acapulco, and reached the Golden State in the hight of its bustling infancy.

Here we leave him for awhile, turning to observe how matters fared with the chief personages of our narration on the bleak coast of Newfoundland.

Shade and Sunlight.

When morning dawned all of the life-boat crew were missing. The men who had saved others were not to save themselves. Gloom rested over the survivors and horror couched under the roofs of three habitations. The beach was searched, and the search in part rewarded. On a rock was found the unconscious form of Nat Gibson, a knife in his hand and blood on his breast. He was taken to his father's hut and tenderly cared for. He recovered, but of the events of that night he would never speak. He was more sullen than before, kept himself aloof from all—friends and strangers—and at last departed secretly for lands unknown.

James Baines was mourned as dead and the strange sailor was never again seen. Thus closed the events of that tempestuous night—that Christmas night of agony and crime.

* * * * * *

We pass to California. In one of the gulches in the Sierras James Baines toils as a miner. He has been fortunate. The placer he has worked has yielded richly, and he has just written home that, "if all is well," he will shortly return master of a competency. His dust, already reaching several thousands of dollars in value, is buried in a zinc box under the floor of his cabin, as was the custom in those primitive times. He steadily adds to its store and with joy sees the pile increase, anticipating the day when he can hear it hence as a golden present to the idols of his heart.

Half a mile from his cabin is a camp of rough characters—men of all nationalities, who work little, quarrel continuously and shunned by the miners of the vicinity as dangerous neighbors. The leader of these men is a man not unknown to the reader—Nat Gibson. The story of his life from his leaving St. Johns would read like fiction, but the incidents would be dark, and are as well left in oblivion. He was now the ringleader of these turbulent spirits and sooth to say, they could not have found a better master. He was to James Baines what shade is to sunlight.

The contrast between the two men was as great, perhaps greater, than ever. One was the personification of good, the other of evil. While one was wasting his days in idleness and sin, the other was steadily employed in laying up a store for the future and in improving mind and soul, enlarging by study the intellectual and expanding by contemplation and a steadfast perusal of the Word his spiritual faculties. Nor was James Baines selfish in his acquisition of knowledge and piety. A Christian man, he emulated the example of his great Master and "went about doing good." He had a kind word for all, was ready to assist the needy, and endeavored, as far as he could, to curb the wickedness by which he was surrounded. He was seconded by a few men like himself, who, forming a little band, met as the apostles of old, on the first day of the week, for the worship of God. During these gatherings the door was open and any who chose would take part in the exercises.

One sultry afternoon, just as the little congregation was engaged in singing that noble hymn,

"Oh, for a closer walk with God,
A calm and heavenly frame—"

To that most harmonious of all tuneful compositions, "Balerma," a stranger entered the cabin. He was a tall, angular-looking man, young in years but evidently mature in crime. His face was dark and sinister and a mocking smile played over his features as he gazed upon the various members of the little church, here in this remote and lawless land engaged in uttering the praises of Him from whom cometh every good and perfect gift. The stranger's gaze at length rested on James Baines, who

wae leading the singing. In an instant hie demeanor changed. His eyes glared, a deathly pallor overspread his countenance, his limbs ehook, and had he not grasped a rafter for support he would surely have fallen. This man wae Nat Gibson, and well might he be surprised at seeing the man whom he had intended to tomb in the eeas a living being before him! He wasin fact aghast. He would have fled, but could not. An invisible power held him fast. The hymn seemed to hold him also—mayhap recalled hallowed memories—so he remained despite his horror, gazing with a vacant expreseion on the form of the man whom he had long believed moldering in the ocean.

James occaeionally glanced at the stranger, but crime had so changed his appearance that he was unrecognized.

The hymn closed and James, taking a text, delivered a plain, strong and fervid discourse on Forgiveness. He showed the glorious victory gained by him who forgave, over himself and Satan, to him who followed the reverse course. He dwelt upon the godliness of returning good for evil and showed in vivid colors the blissful condition of the world if men forgave more and avenged lese; that the mission of Shiloh was forgiveneee, and that without this attribute none can justly hope for eternal happiness. The words fell like barbed shafts into the heart of Nat Gibson. Each sentence struc home. He felt ite truth and left the cabin filled with remorse. His conscience was awakened and from that moment he wae a changed man.

The day following he withdrew from his companions of the camp and went into a retired place, where he built a cabin of pine logs and lived alone, toiling industriously and striving to follow the injunctions of the man whom he now honored, and whom he once sought to detroy. Every Sabbath he was present at the eervicee in the cabin, joining in the singing and listening devoutly to the reading of the ecriptures or the religious truths pronounced by their rude but earnest expounders. Before the services closed, however, he stole away; he shunned all fellowship with man, even with those whom he esteemed, and came and went like a stranger. Still he treasured the truths gleaned in that humble field. He procured a bible, a volume of eacred songs, a few tracts, and with these he nerved himself against the machinations of the evil spirit, improved himself in grace and at laet become an humble and devout follower of Christ. The world may have had many an abler man, but none we trow more zealous in faith than the converted wrecker. Thus he lived for several months. In that time he had accumulated quite a goodly pile of gold dust, and began to think of a return to hie native place.

But the year was now drawing to a close; the skies darkened, the lees hardy trees cast their foliage, the black pines became blacker, enow fell at times and the winds increasing in volume announced the approach of winter.

Gibson wae out one day in chase of a deer. A storm came on and overtook him; shivering with cold he sought refuge in an adjacent cabin. He lay there all night and in the morning was carried to his own hut, where he lay very ill with fever. His sole attendant was a boy, who could do but little for him. Physiciane and medicines were unknown, eo he had to truet to simple remedies, which failed to alleviate his disorder. In this extremity he had but to rely upon faith, and marvelous wae ite power. It suetained his epirit in its writhings with the pangs of the flesh, it consoled him in many a gloomy hour, and at last served as a beacon star to guide hie soul through the valley of the ehadow of death.

From the first it was evident his last call had sounded. The eummons wae imperative and he had but time to equip for the ordeal before he wae compelled to depart.

It was Christmas night.

The anniversary of that night on which he had so cruelly left Jamee Bainee to the fury of the eeas. It was also stormy; snow wae descending, the winds howled dolefully and the pines rocking in the blast eeemed like angry demone uttering forth discordant tones of agony and complaint.

It was a fit night for a troubled eonl to croee the eea of eternity, passing from a ecene of tumult to one of serenity. Gibson felt he wae nearing the brink. He had made his peace with God, yet one thing dwelt heavily on hie conscience: his conduct towards James Baines. He could not die easily without craving his forgiveneee. He asked the boy to eummon him immediately. The boy departed. Nat Gibson was left alone, dying in that isolated hut, the wild gusts and groaning trees dirging his epirit ae it iesued from ite earthen ehell to the mystic realms of futurity.

Calming the Passage.

Jamee Baines was sitting in his cabin on this night, thinking upon the past. Hie thoughte were gloomy. He remembered he was in a strange land, remote from thoee he loved. He recalled his gray-haired sire, his saint-like mother, and one mayhap even dearer than theee, and, as their images rose before him, he felt an indeecribable sadnese tinge his epirits. He remembered, also, that on a Christmas night, one year ago, he was cast adrift by Nat Gibeon, hie rival for the hand of Ellen Baek. Ae this man's villalny came before him he could scarce repress a vindictive feeling, yet he speedily repressed it, knowing that as a Chriatian he could not hate any living thing, nay, not even hie most determined foe. At thie stage of his reflections a knock was heard. Opening the door, he eaw before him a figure white with snow.

"Who are you?" asked James.

"A meesenger from a dying man, who wishes you to visit him immediately."

"Who is the man?"

"Nat Gibson."

James started. Had a bomb exploded at hie feet he could not have been more astonished. The name of the man of whom he had been thinking so darkly sonnded in his ears and thrilled his spirit with a wierd significance. Could it be possible, he thought, that thie was his enemy—hie would-be destroyer—who was now craving his aid? It might be; time brings strange changes, yet he was suspicious. He feared it might be a lure, and with reason, for of all men he would be the last whom Nat Gibson would care to meet. He did not know the great change which had been wrought in the once erring man. Yet eo bold, so generous was his nature, that as it was, he could not be guided by thie fancy; but, after some further questioning of the meseenger, reeolved to obey the summons.

Throwing on his top-coat and placing a pair of pistols in his belt, he sallied out and, following his more active guide, wae soon scaling the mountain side amid the horrors of a mountain enow etorm. A wilder night had rarely glowered upon the Sierras, yet the two brave hearts pushed on, and though late arrived in safety at the hut of the dying miner. They were just in time, for Nat Gibson's light had almost burned o its socket. As they entered, he turned his yee upon James Baines, and an expression of nguish poured over hie care-worn visage. He extended his hand—

"I have sent for you, Jamee," he said, "to ask a last favor. I am dying."

"Heaven is merciful; can man be otherwiee," wae the answer. The two men clasped hands. A peal of thunder that caused the earth to quake seemed to witnese the solemn compact.

"Hark, the signal!" cried the sick man wildly. "'Tie the voice of the captain. The iseue comes. Beat to quarters!"

"He wanders," muttered James ae he gazed sadly upon the face of the eufferer. "I fear my coming will not avail much."

"Aye, but it will," was the answer. The shadow had passed and the fated man's reason again shone unclouded. "Aye, it will. I have have sent for you, James, to crave forgiveness for the great wrong I did you. I tried to drown you, but failed. Heaven wae over yon. Yet I thought you dead, and many an hour your ghost has haunted my memory. It was ever before me. I tried to shun it, but could not; tried to harden my heart against it, but in vain. It was alwaye present. Yee, ever present, till I saw yon in your cabin and heard you sing and discourse of heavenly things. Then it left me—then I grew better; a load was taken off my eoul. I became a changed man—a better one I hope and now, repentant, cleansed of my sins through the Word of Him who died for sinnere, I am ready to depart, feeling that I shall not cry in vain for mercy."

"The appeal, I feel assured, will not be vain. As Heaven forgives you, so do I forgive. All that man can do will I also do to help you, my suffering brother."

'Bless you, James; you were always good. But I am paet human aid. I must turn to a higher source for comfort. But list, my mind strays; look under yon plank in the center of the cabin. There all I own in this world is buried. Take it and keep it, it is yours; only let not my father pass in poverty to his grave. This done, all is done. And now, earth farewell. Sing a hymn, James—that one I have often heard you eing—

'While Thee I seek, protecting power,
Be my vain wishes stilled'—

It may soothe my spirit as it wings across the dark river."

The hymn was eung. The voices of the two eingere (for the boy also sang well) roee in strange nnison with the roaring winds without; yet ere the closing line was reached, the earthly tenement of Nat Gibson was tenantless. Who could justly grieve? On that night, while the winds howled and the thunders crashed, the eye of man, if cleared of its terrestrious film, might have seen a chariot of fire like to that which bore the Tishbite to heavenly climes, bearing to kindred realms the exultant eoul of the redeemed wrecker. He dies well who dies in the Lord. * * * There is a lonely grave in one of the canyons of the Nevadae. A rude cross of wood still marks ite place, and etill bears the name of its tenant—Nat Gibeon.

Hearts of Oak.

We return to St. Johne. It is Christmas night. One year has passed since James Baines set ont on his errand of mercy and returned not. There is gloom in the little cot on the cliff. The joy of ite aged tenants has departed. The hope of their lives has vanished, and all ie shadow around them, yet they linger upon the etage; the blast that rende the young often epares the old tree.

The etorm is loud without. Its eounds recall the past, and the venerable pair dream mournfully by their desolate hearth.

"'Tis a year ago eince Jamie wae lost," murmured the old man, "and this night ie nnco' ae wild. May Heaven eend to others that mercy on this which wae denied us on that night o' terror."

"Dinna rail, maun, though your load be heavy; Providence is just, and what He has taken He may again restore."

"Not in this world, Margery; in another, wha can doubt?"

"In this, also; ye ken I hae had a strange dream. I saw Jamie, and he was aleeve."

"In a dream, perhaps, but in leef, alas! never."

"Say not ea, I believe Jamie ie still aleeve."

A chuckle was the only anewer vouched this remark. At that moment voices were heard without, gleeful voices, and soon after a eeriee of clattering knocks resounded upon the door. Dame Margery rose hastily and opened the wicket. Ellen Bask bounded in, followed by her father.

"Good news," cried the latter, "Jamee—"

"Is alive!" almost shrieked Ellen, flaunting on high an open letter.

"God be praised!" wae the reeponse of the old couple, who, overcome with emotion, eeemed for a time lost to life,

"For sudden joys, like griefs, confound at first."

But recovering, the glad tidings were gradually unfolded. Two letters—thoee which James had written on his arrival at St. Kite, had been received. They told of his marvelous escape, and of his departure for California. They also hinted darkly of the wrecker's son, Nat Gibson, but that worthy was far away and the euspicions disturbed him not. Theee were the only blots on the brightness of the hour, and they sank deeply in the hearts of the parents. That Christmas night wae indeed one of joy, perhaps the more by reason of its contraet with ite tempestuous predecessor.

* * * * * *

Twelve months have passed, and another Christmas ushers in a season of merry-making and praise-giving. A storm blusters without, the seas are angry, the blasts violent and the skies charged with lightning. Thunder rolls in sullen peals, and all the elemental powers seem combined to make the night one of malignant tumult and sublime horror.

The little house on the cliff rocke with the blaet, yet the walls are firm; the fire burns cheerily, and the aged tenants sit cozily by the fire-place, and, with lighter hearts than when we last saw them onc year since, lieten to the bellowings of the tempest. Several letters have been received from Jamee. They tell of his labors as a miner, of hie good fortune, of his affection for his parents, of his love for Ellen and of his truet in God. One has told of the happy death of Nat Gibeon, of his bequest, of his burial. Money, too, has accompanied theee miesives, and the gaunt form of want no longer haunts the fancies of the venerable pair. The last epietle is the most eeteemed of all, since it tells of James' speedy return to the place of hie nativity.

"I wonder how long Jamie will be awa'?" queried the dame, as she eipped a spoonful of strong tea, freshly made as a epecial honor for the occasion.

"Not long, I'm thinking," eaid the good man, following the example of his white-haired spouse, "he might be here to-night."

"Heaven forefend. It will gang ill wi' any craft off the coast to-night. I hope Jamie is mony a good league beyond the reach o' thie uncanny bluster."

"I hape sa mysel'; yet wha can tell? He may be here this night."

As he spoke, the eound of a gun was heard, evidently fired at sea.

"Hush!" cried the dame, "a signal o' distress."

"I hope it's not ill wi' Jamie," anewered the husband, rieing and opening the door. He was followed by his wife, the two gazing anxiously into the darkuess.

Suddenly a flash lit the heavene and soon after a report rolled suddenly from the eame direction.

"The auld reef again. Another castaway on the rocks that nigh lost us Jamie," exclaimed the aged man, "I must awa', wife—to the beach."

"Stay! you're maud—wha can you avail? Stay, for the love o' heaven, etay!" ehrieked the anxious woman. But her cries availed not. The time-bent man, endowed with almost superhuman etrength, plunged into the storm and pushed his way toward the beach. Arrived there he found a crowd of men grouped together, gazing seaward toward a point of rocke on which a ship was lying. The lightning had ceased, but the flashes from her guns revealed her perilous situatiou and spoke in tonee intelligible to every ear, of terror and distrees. A boat—a life-boat—had already been launched, but failed to reach the wreck, the seas carrying it around the point into a hollow in the ehore, where it landed.

A man advanced in yeare, with a hawk-like face and long, unkempt locks bleached to whitenese, was endeavoring to obtain a crew to man a second boat. But volunteere were shy. The life-boat had taken the best meu and those who remained were loth to risk their lives in what seemed a ueeless venture. But their refueal only added ardor to the old man'e efforts.

"Come on," he cried, "for mercy's sake, men. Do not etand idle while human beings are periehing! come on; be meu, not cravens! A few bold strokes and all ie done. Come on, to the rescue."

His appeale at laet had effect. Three men etepped forward.

"Bravo, lade!" he shouted. "One more only is needed. I want a hand for the stroke-oar. Who epeaks?"

"Bainee," was the answer.

"What old Baines?"

"Aye, auld Baines, who'll pull as stoutly as the toughest. Awa, we lose time."

"Brave to the laet," said the caller of the crew, who was none other than old Gibson, the wrecker. A strange zeal fired him this night. He too, like the elder Baines, was nerved with unwonted spirit. For once devoted to a noble purpose, he wae heroic. Never greater than on this night—this night when he braved death to eave othere.

And here our etory ends. The boat was launched, reached the wreck and took off 22 souls—crew and passengere. Never did old Baines pull with lustier strokes than on that passage, and well were his efforts rewarded. On the wreck was his eon James Baines! He had his gold dust girt about his pereon and came home wrecked but with a fortune. One event, however, saddened the reecue. Gibeon, the captain of the crew, was carried off by a sea! So closed the career of the elder wrecker, who, dying in a good cause, wae greater in death than in life.

Here we drop the veil. The reader can imagine eubsequent events: James and Ellen married, a happy family, domestic bliss and all the etceteras that complete a picture of unalloyed felicity, such ae we trust all who read thie story are enjoying on this Chriatmas night, December 25th, 1876.

Young Folks' Column.

A Christmas Song.

The oak is a strong and stalwart tree,
And it lifts its branches up,
And catches the dew right gallantly
In many a dainty cup.
And the world is brighter, and better made,
Because of the woodman's stroke,
Descending in sun, or falling in shade,
On the sturdy form of the oak.
But stronger, I ween, in apparel green,
And trappings so fair to see;
With its precious freight, for small and great,
Is the beautiful Christmas tree.

The elm is a kind and goodly tree,
With its branches bending low;
The heart is glad when its form we see,
As we list to the river's flow.
Ay! the heart is glad, and the pulses bound,
And joy illumines the face,
Whenever a goodly elm is found,
Because of its beauty and grace.
But kinder, I ween, more goodly in mien,
With branches more drooping and free,
The tint of whose leaves fidelity weaves,
Is the beautiful Christmas tree.

The maple is supple, and lithe, and strong,
And claimeth our love anew,
When the days are listless, and quiet, and long,
And the world is fair to view.
And later,—as beauties and graces unfold,—
A monarch right regally drest,
With streamers aflame, and pennons of gold,
It seemeth of all the best.
More lissome, I ween, the brightness and sheen,
And the coloring, sunny and free,
And the banners soft that are held aloft,
By the beautiful Christmas tree.

—*Mrs. Hattie S. Russell, St. Nicholas.*

The True Story of a Doll.

A year ago, a young girl, one of the teachers in a echool in a great city, bade good-bye to the children and went home. The children laughed a great deal, and the etory went about how that Miss Nellie was going to be married eoon, and was going home to learn to keep house.

Nellie was one of the merrieet girls in the world. In echool or at home, everybody tried to eit next to her, to hear her laugh. Nobody wae ever so friendly or eo full of life, they said. But she was not strong; and when she went home, she grew thinner and weaker day by day, while the doctors stood helpleesly looking on. The marriage was put off again and again. At last ehe could not leave her room. Yet still people tried to come close to her; the laugh was always ready on her lips, and the big blue eyee grew more friendly with each fading day.

It began to be noticed, however, that ehe was anxious to sew or knit all the time, to make eomething for little children—soft, white little shirts, or baby's socks. In the city where she lived there is a hospital for eick children, in which there are many "memorial beds" given as legacies by dying women, or in remembrance of them by their friends. Nellie had no money to endow a memorial bed, her thoughts were buey with the sick babiee.

"I will drees a box of dolls," she said, "so that each can have one on Christmas morning."

They gave her a doll, and ecraps of silk and lace, and she worked faithfully at it with her trembling fingers.

"I will have thom ready," she would eay.

But it seemed as if she would not have even one ready, she was forced so often to lay it down. One September night she was awake all night, and by dawn made them wash and dress her and give her her work-box and eciesors.

By noon the doll wae dreseed, and ehe laid it down, smiling.

An hour or two later, they told her that the end was near. She kissed them all good-bye. Her face was that of one who goee upon a pleasant journey; and, holding her mother's hand, she closed her eyee and went away.

There ie the doll, alone in its box. I thought if each little girl who reads this story would drese a doll and eend it to a poor child in some asylum or hoepital on christmas morning, that Nellie would surely know of it, and be glad that she and her loving fancy had not been forgotten.—*St. Nicholas.*

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SAN FRANCISCO

Saturday, December 23, 1876.

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The Week.

The flight of the weeks has brought us again to the holiday season. To all the homes to which our weekly visits have been made, we sincerely wish a Merry Christmas. Let the joyful voice sound high. Let the happy spirit enter and possess the home and all its inmates. Let the day be memorable. Many are the bright spots in life if one but clear the eye from weariness to perceive them, and the mind from care to enjoy their shining. Christmas should be, of all the year, the merriest day. Thus we wish it may be to every reader of the RURAL PRESS.

It is the season of giving and receiving gifts. Many a tongue is aching to-day to tell what must be held in silence until Christmas morning. We, of all the world, are worst to keep a secret. A newspaper keeping its mouth closed is an anomaly. We cannot resist the temptation to tell our readers what the Holidays will bring the RURAL PRESS. We hear that the publishers are going to give us a bright new suit of typographical clothes as a New Year's gift. They say that the RURAL deserves a thorough refitting for the success which it is gaining, and we are sure the editor and readers will rejoice together over the generous gift. And as the publishers evince such a disposition to enable the RURAL to do its best work, we trust that our readers will echo the effort and give us many a good word with those who should give us their patronage and support. With the beginning of the new year our circle of readers should be greatly increased, and this can be done if each of our friends will make us a Holiday present of a new subscriber; our books are open for the names. Let us give the RURAL PRESS a grand surprise.

The Advance of Agriculture.

In the main there are two ways in which the science of the farm can be advanced. First, by constant and intelligent efforts among farmers to make their land and stock yield larger returns, and second, by studying more carefully the commercial laws which govern the sale and handling of products until they reach the consumer.

In the full and best discharge of his business the farmer is both a merchant and a manufacturer. He manufactures necessaries and he sells that which people cannot do without. He has this advantage at the ontset, and there are a hundred chances for turning it more fully to his profit. But the greatest part of the farmer's business is production. Production with him is growth, either of plant or animal. But what is growth? Growth is material increase in accordance with natural laws. What is the understanding of natural laws? It is natural science. Who is he who raises the best crops? He is the man who can work best with the natural laws which regulate growth. And who is the man who works best by natural laws? He is a scientific man. Here we are, then, right upon a question which agriculturists have stumbled upon repeatedly. The man who raises the best crops and the best stock and keeps his soil in the best condition is the scientific farmer. He may be scientific without knowing it, but he is scientific nevertheless, for he gets the best growth, the best growth is gained by conformity to natural laws, and conformity to natural laws is working upon scientific principles. This is not what is generally understood by "scientific farming," but that makes no difference. There are several ways of reaching facts, but he who gets them, understands them and profits by them, is the scientific man. Although no wise man will neglect the careful study of what men have written about agriculture in books and newspapers, it is possible to conceive that a man may be scientific without them by closely reading the lessons which he sees in his land and animals. The reason "scientific" or book farming has so often failed is because some of its advocates have been reading with their books upside down or because they have not been wise enough to apply the truth which they read to their farming operations. They have been called "scientific farmers," and their failures have brought a name which they did not deserve into disgrace. They may have been educated men, they may have been wonderfully wise in certain directions, but they were not scientific *farmers*, because farming, like anything else truly scientific, must succeed.

It is difficult to see how the operations of the farmer, depending, as they do, upon natural laws, can be expected to reach a great advance without a better understanding of those laws, any more than one can see how an inventor can gain a great triumph without knowing the mechanical laws which govern the movement of wheels, the power of springs and levers and the extent of force which may be involved in his machine. Is it any more necessary for the mechanic who makes a mold-board, to understand what curve he can use to get the cleanest turn with the least resistance, than for the farmer to understand what is the natural effect of turning the furrow and what laws govern growth upon the inverted ground?

As we have claimed that every successful farmer is, to a greater or less degree, a scientific farmer, it will be appropriate to discover what natural science really is. Charles Kingsley says: "Science is knowledge of a natural object, its causes, its effect, its classification, or, in plain English, it is asking about an object which comes before us. What is it? How came it where it is? And what can be done with it?" What straightforward, simple questions these are, and yet the answers to them compose science. It is useful and practical science, and that is what we need in agriculture. The man who gets a larger yield from his field than that obtained from the one which lies next to his has gained possession of science in some way. What is necessary now for the advancement of the agricultural industry is that this valuable science, or knowledge of how to do it, shall be wider spread, and for this dissemination there can be no better way than for farmers to push ahead together for the improvement of practice in all branches of the industry.

NOTE ON FROST.—General Naglee, of San Jose, has made the discovery, which no doubt other viniculturists and horticulturists have made for themselves, that frost is more severe on vines and plants near the ground than a few feet from it. For that reason he trims his vines so as to bring the fruit three or four feet from the ground. Of course a severe frost will affect all foliage, but observation has shown that fruits a few feet from the ground will escape a light frost that would kill those lower down.

BEET.—Wm. Bibler, of Lakeville, Sonoma county, brought a beet to San Francisco last week that was quite a mammoth, weighing 120 pounds. It was 16 inches in diameter and was raised from seed planted May 1st, 1876. Hard to *beat!*

Flax for Fiber.

EDITORS PRESS:—I am always eager to peruse the columns of your most valuable paper. I am pleased to learn that arrangements are now perfected in San Francisco to manufacture flax fiber. Will you please let me know what work has to be done with fiber and the different kinds of work from the time the seed is in the ground until the fiber is ready for market. I would also like to know if fiber that is harvested and threshed will be marketable. In fact, I am eager to learn every particular and all the different kinds of work that has to be done with flax, and as near as may be what the expense would be per acre. I have plenty of good soil and time now to sow, but don't like to go at anything blind.—CONSTANT READER.

At present we cannot give any further information concerning growing flax than is contained in the very explicit letter of Mr. Fleckinger, which is printed in our issue of Dec. 9th. We shall, however, be pleased to hear from any of our readers who have experience to relate on the subject.

The points of novelty to most of our readers are those which our querist asks for concerning the preparation of the fiber for the market. To secure this information, we made a visit to the new West Coast flax mills in this city, and had an interview with the manager, Mr. Crane. To him we are indebted for much courteous attention.

The flax, to be of value for fiber, must be *pulled* when the seed is ripe, and not threshed. A man can pull an acre in two to three days. Then the flax is bound in small bundles and the seed whipped off. This is easily done, either by whipping off with the hand, or putting between two small rollers. These rollers can be easily made and turned by horse power or otherwise. After this the flax has to be rotted. This is done by spreading it out on the field for a couple of weeks, if there is rain or dew. If there is no rain or dew the flax must be "water-rotted." This is the Oregon practice. They dig a hole in the ground 25 feet square and make a sort of tank that will hold water. The flax is laid in in the bundles, and it takes about one week to rot it. The flax is then taken out and dried.

The next process is to break the fiber. The best "break" is called the "Sanford & Mallory." This will run through about two tons of the straw a day. This machine costs about $200.

The material then has to be "scutched" or cleaned. This is done by a simple contrivance of knives fastened into a revolving hub, which strike the fiber which is fed against them. The flax is then ready to bundle up and send to market.

The actual cost of pulling, rotting, breaking, and dressing, under any circumstances, will not exceed five cents per pound for the lint. The lint is now valued at 15 cents per pound in this market. Mr. Crane showed us a letter from a house in Canada, which offers to furnish him lint at 13½ to 14 cents.

This is the price which has ruled there year in and year out, and it is fair to presume that the price here will rule as high as 12 cents. This will give a good margin of profit to the producer.

The expense of rigging up a flax mill for preparing the lint for market would be something like this: Breaker, $200; scutching knives, $100; other shafting, pulleys and belting would perhaps make $100 more. The additional expense would be a horse power or engine of about four-horse power. A mill of this kind will work up the straw from 600 acres. It is necessary to have a skilled man to supervise the rotting and cleaning; men with this skill can be had for common farm wages, for there are many in the East who understand the business, and would be glad to come to this State.

We have given merely a rough estimate of the cost of treating the fiber, that our readers may see how much is required to start in the business. There are not many who would desire to put in 600 acres and small growers could combine to pay for the cleaning apparatus.

Persian Insect Powder.

Since publishing the article in a recent issue descriptive of the Persian insect-destroying powder, or the plant from which it is derived (*Pyrethrum carneum*), we learn that a gentleman in Stockton, G. N. Milco, a fruit dealer in that place, has for several years past been experimenting on the adaptability of the plant to the California climate, with such marked success that he has this year planted 50 acres in that happy panacea for the wicked flea, etc. His experiments after procuring the seed were confined to ascertaining the proper soil for the cultivation of the plant, the result of which was the conviction of the superiority of the sandy loam in the bottom lands of the Mokelumne river, similar to that devoted to the growth of the hop vine. He thereupon leased 50 acres on that stream, about 25 miles from Stockton and prepared it for the reception of the plants. As he is a native of Dalmatia, where the plan, is largely grown, he is familiar with its cultivation and is sanguine of his ultimate success. The plant is perennial, increasing in its production year after year, and the yield is said to be about 2,000 pounds per acre after the first two years. As the powder is worth from $1 to $5 per pound in the market, and as there is no other producer of the genuine article known in the United States, he naturally anticipates a fortune in his powder. He has submitted specimens of his production to a Boston chemist, who pronounces it of a superior quality, and equal to the best imported article, and his personal experiments with it in the annihilation of fleas, bed bugs, cockroaches, flies and other insects confirms its undoubted value.

QUERIES AND REPLIES.

The Aughinbaugh Blackberry.

EDITORS PRESS:—I answer to query printed in a recent issue of the PRESS, and for the benefit of all who have my blackberry, I would advise cutting the vines back to from two to five feet as soon as convenient. Training up will not pay for the expense and labor. Frost cannot be guarded against.

This berry having originated from the common wild blackberry of California, differs widely from all other blackberries now in cultivation, as the male and female principles do not exist in the same flower, nor even in the same plant; in consequence of which my last year's crop was very limited, having from time to time destroyed the male plants. I am now taking up every fifth plant in the row and putting in a male plant, which I tie to a stake so the pollen may find its way to the blossoms below.

If your plants do not bear well, find a patch of wild plants, which are generally about nine-tenths male plants. Set one to every four or five of your female plants, and you will have the earliest, largest and best flavored blackberry in the world. I seriously regret that I did not make the discovery sooner, and am not offering plants for sale this season.—G. AUGHINBAUGH, Alameda, December 12th, 1876.

Fern and Insects.

EDITORS PRESS:—I send you by mail a specimen of fern found in this county. It is new to me. Please give me a name for it. I find it on rocky pointe on the foothills, southern exposure. I have never found it except where it could have full sun the most of the day, often among fragments of rock where I could not get a bucketful of earth in an hour's trial.

2d. I send specimens of insects (new to me) in larva and pupa states, I think. It seems to me that the pupa is pushed out of the enclosing limb and falls to the ground. I send some empty scars on evergreen oak twigs.

3d. I send empty nest of another insect, also new to me. This I found on an oak twig; the first I ever found where I could remove it so as to watch farther development. I have found several attached to rocks so that I could not move them. The first was seen in October, quite soft. In November I found one just entering the pupa state. This I found empty in December.—J. ROGERS, Auburn, Placer county, Cal.

1. The fern is the *Pellea mucronata*, one of the most beautiful of our ferns. It is not rare, but it is found nearly everywhere on our rocky hillsides. It is found on the hills to the north of the Golden Gate.

2. The twigs are full of the punctures of a species of *Cynips*. Mr. Edwards says he has received a great many specimens of the work of this insect during the last year. The twigs our querist sends are some of the best Mr. Edwards has seen, and he will give them further examination.

3. The nest is that of a "mason building wasp." The species cannot be determined without the insect. These wasps build of little fragments of rock, cementing them on the twig. As our querist notes, they generally build upon the rocks.

Curious Cuts on Apple Trees.

EDITORS PRESS:—Could you or some of your readers inform me what insects or birds attack the young apple trees in my orchard at this time of the year? There are small holes the shape of a horse's foot, with toe pointed downwards, cut through the bark about from a foot to two feet from the ground, on a line with one another, at regular distances of about an eighth of an inch from one another and entirely circling the tree. Some of the trees have five or six rings round them made in this way, causing the sap to run very freely, and, I should judge, causing great injury. The trees attacked in this way are the most thrifty trees I have. They have been about five years planted out and I have never observed any such thing before. Although I have examined them most carefully and have watched them to see if I could catch anything at work on them, I have been unable to assign a cause for it. I should like to hear from you if you can inform me what is the cause; also if you can suggest any remedy to prevent its recurrence, and what I can do to heal the wounds already made so as to prevent its injuring the trees any further.—W. C. GREENFIELD, Middletown, Lake Co.

This matter is very curious and new to us, consequently we cannot give any satisfactory information concerning it. As the description given seems to indicate insect work, we consulted Mr. Henry Edwards. He can only say that the cuts seem to be the work of a kind of wasp. There are leaf and bark cutting wasps, but he has seen none work just as described above. He thinks it impossible to decide definitely on the matter until the intruder is captured, and he thinks this can be done if Mr. G. will continue his watch. He advises him to look through the trees for insect nests, and finally watch the trunks of the trees in evening or the early morning. If this discloses nothing it would be well to give an examination at night with a lantern, as insects inflicting similar injuries work at night. If Mr. G. will pursue his search, and send us what he thinks to be the culprit, we will have the rascal examined and prescribe for its destruction. We should be pleased to hear from any reader of the PRESS who has noticed anything like that described by our querist.

The Demand for Olives.

EDITORS PRESS:—I see in the PRESS of December 9th an inquiry from Edward Holmes, Riverside, Cal., in reference to olives, and my name quoted in connection. Mr. Holmes wishes "reliable information in regard to the demand for olives." Please allow me through your columns to say to him that the market cannot be "overstocked." The next generation cannot supply all that this country can and will require. If we can raise enough to produce a market for the oil and the pickles here, we will help each other. I am in the olive culture, and wish others to go and do likewise.—DANA B. CLARK, Santa Barbara, Cal.

NORMAN HORSES.—The importation of fine Norman draft horses continues. There are now at Rickards' stables, on Market street, several fine animals, among them stallions named "Hercules" and "White King," which every lover of horses should examine. They are the property of R. B. Chisholm, and A. Sackrider has charge of the stock now in this city.

ON FILE.—"Woodside Papers," J. E. J.; "Santa Cruz Water Works," C. N. W.; "Rich People," E. B.; "Science's Manias," G. D. W.; "Notes from Western New York," J. B. J.

Cheap Houses for Poultry.

EDITORS PRESS:—Will you please give in RURAL PRESS a plan for a poultry house and directions for feeding? How many hens shall be kept in one flock, *i. e.*, to one hen house, provided they are not confined in a yard? We read with much interest the Poultry Department; please keep it full.—A. O. BARBER, Snelling, Cal.

These questions have been fully answered by our poultry editor; see PRESS of Jan. 29th and March 11th, 1876. The articles which have appeared from time to time in the PRESS have been collated by Mr. Eyre and printed, with some additions, in the form of a small pamphlet, which he sends to his customers on receipt of ten cents, to cover cost of printing and postage. As many of our readers may have failed to preserve their RURALS, and as we have many new subscribers who have not seen the earlier articles, we will reprint some of them from Mr. Eyre's pamphlet. Mr. Barber will find his questions thus fully answered: First, as to

Cheap Houses.

To keep fowls, in California, free from disease, it is, in my experience, almost indispensable that they roost in small flocks, in separate houses. I have found no difficulty as to large numbers, if too many be not crowded into one house. My plan is to build small, cheap houses—either 7x9 or 8x10 feet—the former, if it be proposed to move them often. I make them four feet high to the eaves; the roof is of boards, seven feet long (6 feet in the 7x9 houses) running one foot over the eaves; a small sliding door, about one foot square, in one end, a door two feet wide and five or six feet high in the other. The houses are made thus: Take 6 posts, say 3x4 inches, and 4 feet long; one for each corner and one in the middle of each side. Nail the side-boards to them, (say your house is to be 7x9) the 9-foot boards. Then stand them up and nail the *back end* boards to them. Now place the rafters at each end and nail; and fasten a ridge pole in the center at the top. Then nail a piece 2x3 across the front on to the rafters at the hight of the top of the door. Then nail boards up and down on the front, leaving space for a door. I then nail on the roof; finish the back; cut hole 13x13 in. at the bottom of the back, to be covered with a little door to slide up and down. Cut 12x12 inch ventilator at the gables in each end. The little circles in the engraving show where the ends of the roosts are nailed. I have movable nest boxes placed near the door. I cover all cracks in the roof and elsewhere with 1x3 stuff, which is cheaper than half-inch batting. There is no chance for drafts, the most prolific source of disease. I trust to the ventilators in the peaks of the gables to give the necessary ventilation.

The lumber costs, in Napa, $6 for each house, as I use old pieces or posts for the corners and middle pieces, to which to nail the boards. To move such a house, place under it two pieces of scantling, nailed firmly to a cross-piece at each end, and hitch a team to one of these cross-pieces. I allow 20 to 25 fowls to each house. A farmer who keeps 100 hens should have four (five would be better) of such houses in different places, around the barnyard if he wish, the farther apart the better, with two cocks and 20 to 25 hens to each house. The fowls may run together in daytime; each will find its own house at night. I dot the houses over my fields, about 50 to 100 yards apart. My hens are removed by a 30-acre lot from my cocks; except those in my breeding pens, cocks and hens never see each other till mated. When it is necessary to apportion 20 hens to a house, I fix a yard to it and pen them in for three days and three nights, then remove the yard and they never fail, with a few exceptions, to find their proper house at night. These yards are made of

Movable Fence.

Such fence is eight feet high, made of laths nailed on a frame constructed of three pieces, 1x3 inch, nailed on standards six feet high, also 1x3; the first piece at bottom, the second three feet ten inches above, and the third at top. Roosts should be one foot high for Asiatics, two feet for smaller breeds.

Feed for Grown Fowls.

Chickens, while growing, may be fed all they will eat; but when they have attained their growth and commenced to lay, hens should not be allowed to grow too fat. Many fine fowls, especially the Brahmas, are completely spoiled by over-feeding. Chickens from eggs laid by a fowl which is too fat, are weakly. A misshapen egg is almost always a sure sign that the hen is too fat. The purchaser of a fine pair of Brahmas, anxious to take the best of care of them, may, by over-feeding, totally destroy the laying qualities of the hens, and thereafter probably decry the breed as poor layers, when in fact he alone is to blame.

Hens allowed to roam, having access to the barnyard and to the straw pile, with plenty of green grass, etc., around, require very little food. On many farms it is folly to feed at all; certainly over a quart of grain to 100 fowls daily, is too much. My fowls, scattered over the fields, with nothing but the pasture and the bugs they pick up, are fed a quart of soft food in the morning and a pint of grain at night to each 25. Those confined in corrals are supplied with green food, mostly grass, which I keep growing in each inclosure. They are fed meat twice a week during winter. I boil up the "pluck," or the head of a beef in a large cauldron, with the best of the kitchen refuse and cabbage, potatoes, onions, etc., at times thrown in. The twenty-gallon boiler is filled with water and the mess, when nearly cooked, thickened with bran and shorts. This forms the morning food three or four days in the week. Other mornings the mixture is made of three parts bran and one part middlings, or two of bran and one of shorts, mixed with hot water into a thick, crumbling mass. Fowls confined in pens are fed of soft food a quart to ten or twelve according to the breed and size. At night they are given, at the most, a pint of grain to each dozen birds, and often less. They have lime, crushed oyster shells, pounded bone and charcoal. Corn should be fed very sparingly, either whole or ground, to laying hens; it is too fattening, and when fed constantly is likely to cause derangement of the liver in our climate. I use it on cold and wet days, and never in summer. In summer time, when the grass is dried up, I feed cabbages; giving them whole.

A First-Class Paper Sustained.

We have just refused a $200 patent medicine advertisement from a reliable firm in Boston. The rate offered was satisfactory, but so long as our readers will sustain us in our course we are determined not to print a trashy paper, nor

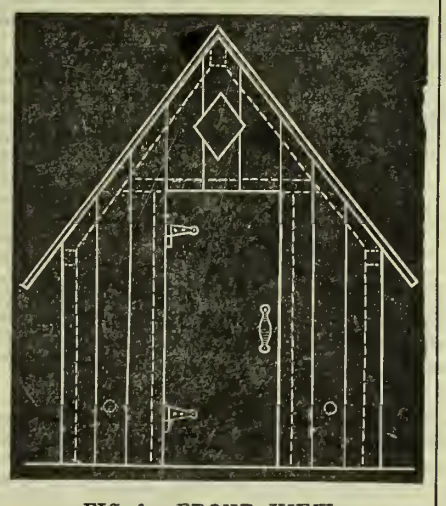


FIG. 1. FRONT VIEW.

insert all sorts of quack advertisements for the purpose of selling the paper seemingly cheap, when it would really be dear at any price. We refuse thousands of dollars annually for advertisements of doubtful character, but such as are sought for by the publishers of ordinary family and so-called first-class weeklies. We believe our subscribers to be intelligent, thinking and reasoning individuals, who can appre-

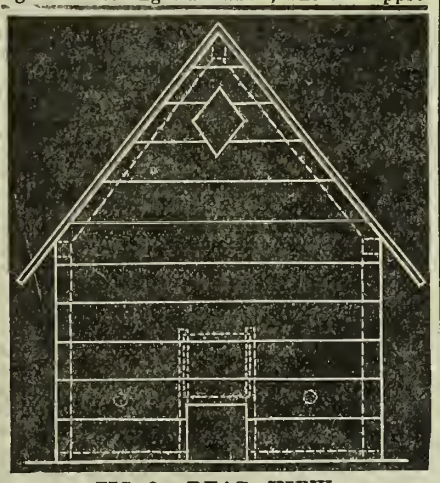


FIG. 2. REAR VIEW.

ciate the difference between *bona fide* editorials and the thin advertising puffs conveyed through nearly every issue of many of our so-called cheap journals. We do not believe our best patrons wish us to compromise the amount or character of our reading matter in the RURAL.

GENERAL CROOK, in his annual report, says: Miners in the Black hills did not violate the

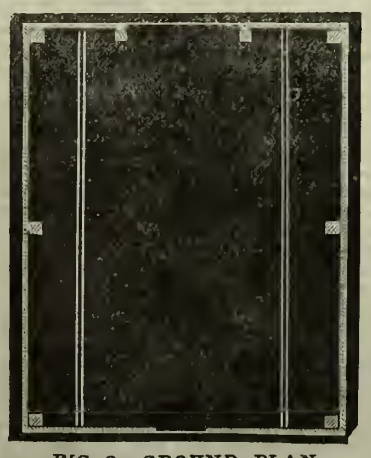


FIG. 3. GROUND PLAN.

Sioux treaty until the Indians had ceased to regard it. He thinks the government has treated the Sioux with unparalleled liberality, which they repaid by raids along the border of the reservations.

Case-Bearing Moths.

Description of a New Californian Species.

The following paper on the case-bearing moths (*Psychidæ*) with reference to the Californian species, was read at a recent meeting of the California Academy of Sciences by Henry Edwards, Esq. We have prepared engravings of the case and larvæ, which are herewith presented:

Among the whole of the insect races, perhaps there are no more curious and interesting examples than are to be found in the family *Psychidæ*, the species of which, in the early stages of their growth, weave habitations for the caterpillars of fragments of stick, bark, lichens and other vegetable substances, carrying these singular structures about with them through the whole of their larval stage, and in the case of the female, arriving at maturity, bringing forth her eggs, and eventually dying without once quitting her self-constructed prison. The *Psychidæ* are a portion of the great silk-spinning family of the *Bombycidæ*, but present many characters which are distinct in themselves, and



Cases of Œceticus Davidsonii, attached to the Stem.

1, 2. Chrysalis, removed from its case.

entitle them to rank, as they are now by most entomologists allowed to do, as a separate and well defined tribe.

Though containing comparatively few genera and species they have a wide geographical distribution; examples of the group are to be found in Europe, North and South America, West Indies, Mexico, Ceylon, Northern India, China, South Sea islands, and Australia, being most abundant in the sub-tropical regions of the globe. Many of the species are, however, small in size, and it is possible that a very large number yet await the industry of observers.

In the construction of the caterpillar cases, they manifest wonderful ingenuity, and their houses are even more remarkable than those of the well known caddis-flies among the *Neuroptera*. Pieces of bark, leaves, straws cut to a uniform length, twigs, mosses, lichens and grass, form, among the various species, the outer covering or decoration of the home, while the interior is lined with dense, soft silk, the threads of which are also used to bind together the external fragments. Almost as soon as the larva is hatched from the egg, it begins the formation of its case, never quitting its habitation as it enlarges in size, but splitting it at the sides, weaving into the opening portions of the vegetable matter chosen and adding to the exterior larger pieces of stick, straw or leaves, as the case may be. "While the creature is small, and the house of no great weight, it is carried nearly upright, but when it attains size and consequent weight, it lies flat, and is dragged along in that attitude." The abdominal legs are furnished with a series of strong hooks, by which the larva retains so firm a hold of the interior of its tube that it is impossible to remove it without injury. When feeding, only the head and the first three or four segments are protruded, and if the caterpillar wishes to remain quiet, it fastens itself by strong silken threads to the branch on which it may chance to be; these threads, on a desire for removal, being bitten off close to the case.

It has the power of turning round inside of its case, and when full grown, and about to change to the chrysalis state, it places its head downward, so that when the perfect insect is ready to emerge, it may do so from the posterior portion of the tube. And it may here be said that it is the male alone which escapes from its curious habitation. The female is, in most of the genera, totally unprovided with legs or wings, and is little more than a living bag of eggs, looking, as one author has said, "more like a grub than a moth, the head, thorax and abdomen being hardly distinguishable from each other." Her eggs are laid within the body of the tube, after which operation she dies, the first occupation of the young caterpillars being to consume the body of their mother, "a proceeding almost exceptional in the lepidopterous insects" Having done this, they leave their early home and go forth into the world to follow independent lives.

The males emerge from the chrysalis state in about three weeks, and are dull-looking moths of dark color, generally unattractive in appearance, having the antennæ in some cases deeply pectinated only at the base, and in others, feathered throughout the whole length. They are remarkably swift in their flight, dashing themselves, in search of the females, wildly among the branches of the trees, and as their wings are delicate in structure, in many species nearly transparent, specimens in good order are very rare in collections.

The typical genus *Psyche* is mostly confined to the old world, some 40 species being there known to naturalists. The most striking examples of the group, however, in which the larva case are sometimes four or five inches in length, belong to a genus named *Œceticus*, of which a species named *Œceticus Saundersii* is found abundantly in the West Indies, feeding upon fruit trees, and at times causing considerable damage. A closely allied form is common in Sinaloa, Mexico, some of the tubes of which, together with about 16 species of *Psychidæ* from various portions of the globe, I have the opportunity of exhibiting this evening. I have, however, in my collection, many of the cases, the perfect insects of which are unknown to me, and I may here mention that in confinement it is, from some cause or other, almost impossible to bring these creatures to maturity. During my residence in Australia, one species which, in its caterpillar state, was common upon the *Leptospermum lanigerum* (the tea-tree of the colonists), though persistently collected through several years and watched with incessant care, never reached the perfect stage, and to this day the imago is unknown to me. Nor was this due to the attacks of parasitic insects, as the substantial and somewhat formidable looking houses of the larva rendered them almost impervious to the onslaughts of ichneumons and other insect enemies. Death usually occurred after the caterpillar had undergone its change, the chrysalis gradually drying up after assuming its proper form, nor could any care and attention which I was able to bestow avert this misfortune.

Owing to the resemblance which exists between these remarkable insects and the fasces which were borne before the dignitaries of ancient Rome, one species has been termed the lictor-moth, while others are known as house-builders, sack-bearers, basket-carriers, and like appellations. According to the Rev. J. G. Wood, "the Singalese call them by a name which signifies billets of wood, believing that the insects were once human beings who stole firewood while on earth, and are forced to undergo an appropriate punishment while in the insect state."

The species at present described as natives of the United States are very few, not more than five, belonging to perhaps as many genera, being distinctly known to entomologists. The most common of these is a species called *Thyridopteryx ephemeriformis*, which, according to Dr. Harris, is occasionally abundant in Philadelphia and its vicinity, and there popularly known in its larval state as the drop-worm, or basket-worm. It is at times very destructive to the arbor-vitæ, larch and hemlock trees. In California, though none as yet have been described, three species are known to me, two of which belong to the typical genus, *Psyche*; the third, and by far the most interesting, which has just been discovered by our President, Prof. Davidson, representing the genus *Œceticus*. It is, however, a matter of regret that at present the caterpillar cases of these three species are alone known, the perfect insects as yet evading our discovery.

Though, perhaps, not quite in order to give names to insects from their earlier stages alone, I am induced to offer brief descriptions of these curious creatures and to suggest the names appended to them, in the hope that I may, by directing attention to the subject, induce observers in various portions of the State to devote their energies to the discovery, not only of the more mature conditions of the species already imperfectly known to us, but to the detection of other forms of these most interesting insects.

Psyche fragmentella. Hy. Edw. n. sp.

Chrysalis case about an inch in length, taper-

Continued on Page 420.

Continued from Page 411.

which is at once driven off by the heat of the day. In hot seasons, the roses open more rapidly, and the crop may last but for 10 days; but in wet, cooler seasons, the progress is slower, and the crop may last for 25 days; but then the daily harvest is smaller in proportion, so that the final result is about the same. However, cool, slow weather is preferred, as it eases the daily labor.

The Stills

Are of the roughest kind, and small; they hold from 200 to 240 pints of water, and are carried to the rose bushes to be filled. To 20 pounds rose leaves, 160 pints of water are added; and the whole is distilled at a gentle heat until 20 pints of water are distilled off. This quantity contains nearly all the perfume of the leaves, which are then thrown away with the remaining water; and the still is again filled with 20 pounds leaves and 160 pints water. This operation is reneated until all the leaves have been used. The water thus distilled off is a strong rose water; and the result of eight or ten distillations is put in a still and submitted to a second distillation, when a stronger rose water is obtained; so strong, indeed, that it is unable to contain the essence in solution, and the latter floats on the top of the water. Experience has shown that, for every ounce of otto of roses, 3,000 pounds of rose leaves are required.

The total yearly production of eight districts, into which the 160 villages of the province of Kezanlik are divided, is on an average 3,500 lbs of otto of roses, of which the district in which the capital is situated produces half. Some years ago, however, the bushes were exceptionally prolific. Thus, in 1866, 6,000 pounds were produced; but in 1872 only 1,700 pounds could be obtained. We ought to add that every rose farmer has his own stills for producing otto of roses immediately after picking the flowers; and thousands of industrious workers are thus occupied, earning in a single short period of 20 days the products of a year's labor in preparing the soil, planting, and taking care of the growing plants. When the distillation is over, the farmers come from all parts of the provinces to the capital to sell their products, those who have large quantities selling directly in the great commercial centers, such as Constantinople and Adrianople. At present, however, an enterprising firm in Kezanlik, considering the delay to which the trade with the last-named cities is subject, and the chances of adulteration, have established a depot in Paris, France, from which this delicate and expensive perfume is now distributed over Europe and all the world.

Poultry Yard.

M. Eyre, Jr., Napa, Cal., Corresponding Editor of this Department.

Roup—A Good Remedy.

This is, perhaps, the greatest scourge that the poultry breeder has to contend with; but with the care and attention that fowls are receiving at the present day, this disease is becoming less frequent. The disease may be prevented by proper sanitary regulations, and judicious housing and feeding. The requirements necessary to its prevention are well ventilated houses, where the fowls are not exposed to any drafts.

The symptoms are various; sometimes the first symptom is a sneeze, the eyes or nostrils, or both, are discharging a thin, watery substance, which gradually thickens as the disease develops, until it becomes white and mattery, emitting a very offensive odor. In other cases, the eyes and head become swollen and inflamed. In either case there will be more or less discharge from the eyes or nostrils, and also a feverish condition after the disease becomes well seated, the birds appearing sluggish, with a gradual wasting away. The first step should be to transfer the fowls to a warm and dry room, and the water fountains should be disinfected, as also the feed boxes, to prevent others from taking the disease. Give the diseased fowls each a dose of castor oil, one tablespoonful, and afterward administer the following, viz: Olive oil 1 oz., gum camphor 1 drachm, carbolic acid 12 drops; take a spring bottom oil can, (sewing machine is best) hold the affected bird firmly, open the mouth and inject a drop or two in the slit in roof of mouth, on and under the tongue, and in each nostril; the amount to be given, and the frequency of application must be determined according to the severity of the case. In mild cases, one application, morning and evening, will be sufficient, but in severe from three to five applications daily. Use the "Douglas mixture" freely in the drinking water. If any ulcers are found in the mouths, apply burnt alum and honey, by swabbing out the mouth with a rag. If the eyes or head are swollen, bathe them twice a day with Labarraque's solution, diluted in twice the quantity of water, or if the discharges are copious bathe oftener. Continue this treatment until recovered. In the absence of other remedies I should try, with strong hopes of success, the sulphur fumigation. Do not return the fowls that have been cured of the roup to the general yard, for some days after recovery.

Useful Information.

How to Make Filters.

Prof. E. W. Hilgard writes to the Napa *Reporter* as follows: In view of the continued complaints of bad water in your city and in other places where malarious, or rather, perhaps, "malaqueous" diseases are or have been prevalent this season, it seems worth while to suggest that the small amount of water necessary for drinking purposes even in the most temperate household is so readily purified by the simplest means, that there is scarcely an excuse for not so purifying it whenever there is reason to suspect that its impurities are likely to affect injuriously the health of the inmates. The boiling to which the water used in making soup, tea, coffee, etc. is subjected, will in most cases so far remedy its injurious qualities that its purification is not a matter of so much moment as is that of the portion which we drink "straight."

A common water bucket provided with a layer of clean gravel, say pea size, an inch thick, then an inch of sand, coarse below, growing finer above; then the rest of the bucket filled with charcoal pulverized to the size of blasting powder, but the dust sifted out—constitutes a filter that will effectually purify all the drinking water of a family for a week or two.

Of course it is better to have a larger and more permanent arrangement, in the shape of a tall barrel or tank fitted with a double bottom, on top of which the gravel, sand and charcoal are successively placed. It is conveniently covered with a tin pan fitting the top, into which the water may be poured, and from which it seeps slowly through a sponge closing a strainer in the middle of the pan, into the charcoal below. A filter of this kind is very generally used in the Northern States, and a 30-gallon one will serve a family for six months before it needs replenishing, unless indeed the water put in the top be too foul to be fit for human use in any case.

The charcoal not only frees the water from impurities of a vegetable or animal origin, but it also diminishes materially the amount of mineral matter which sometimes renders waters unfit for daily use.

The omission of so simple a precaution where there is even a chance of contamination of water, is scarcely excusable after we have been taught by the labors of the English sanitary commission that fully 90 per cent. of all cases of typhoid fever are referable to preventable contaminations of air, water or food. Diphtheria is in the same category; and it will hardly do to talk about "providential" dispensations when we are only reaping the direct consequences of our own improvidence. Ventilate and disinfect by all means; but above all don't go on drinking liquid poison in every glass of water.

How to Sharpen a Screw-Driver.

The screw-driver, says the *Builder*, is found not only in the tool-chest of every mechanic, but in most houses and offices. It ranks with the hammer, the saw and the axe in general utility, and yet few persons know anything about how it should be sharpened so as to do its work most efficiently—that is, with the least expenditure of power, and the least injury to the heads of the screws.

In driving a screw into wood, the force used to press the screw-driver against the head of a screw, tends to aid the latter in penetrating the wood, but when we attempt to extract a screw, every pound of pressure that we apply tends to render it more difficult to get the screw out. It therefore becomes very important that the screw-driver should be so formed that it may be kept in the nick of the screw by the exertion of the very least degree of force, for if it has any tendency to slip out we can keep it in place only by applying pressure, in which case we run great risk of injuring the nick and rendering it impossible to draw the screw.

If we examine a screw driver in the condition in which it is so ordinarily found, we shall find that it presents a section in which the sides of the wedge, in which all screw-drivers terminate, are curves with the convex sides outwards. Now, the effect of thus curving the sides of this wedge is to render it greatly more obtuse. Moreover, when we turn the screw-driver, the tendency to slip out of the nick is just in proportion to the obtuseness or bluntness of the wedge, and therefore this form is the very worst that can be chosen. In the hands of good workmen, therefore, we find that the screw-driver ends in a wedge of which the sides are perfectly straight. This is a very good form, but it is not equal to that in which the sides of the wedge are curves, but the concave sides outwards. In this way we lessen the obtuseness of the wedge at the extreme point and produce a turn-screw which may be kept in the nick by the least possible pressure endwise.

To grind a screw-driver into this form, it is necessary to use a very small grindstone, and many of the artificial stones found in market answer admirably. Many mechanics would find it to their advantage to keep one of these small grindstones for the purpose, as it could be run in the lathe with very little trouble.

Vanillin from Pine Trees.—M. Bouquet de la Grye, on presenting to the Agricultural Society of France two samples of vanillin derived from the sap of the pine, made the following remarks: One of the samples is vanillin in a pure state, whilst the other is prepared for the use of the confectioner. Vanillin exists in the sap of the pine (*Pinus sylvestris*) and of the larch. The first attempts at its extraction were made by Hofmann, but on a small scale. The price of vanillin, though high, in consequence of the operations necessary for its extraction and purification, is still lower than that of natural vanilla. The difficulty lies in procuring the sap. For this purpose the trees are felled during the period when vegetation is most active—in May and June—and stripped of their bark. They are then immediately scraped. The product of this operation, collected in vessels of tinned iron, is immediately heated on the spot to prevent fermentation, filtered, concentrated and allowed to cool and settle. A substance is thus obtained which resembles powdered sugar, and which is known as coniferin. This is a stable compound, and is sent in barrels to Paris, where the vanillin is extracted.

Fire-Proof Shingles.—A writer in the *Polytechnic Review* says: A gentleman in Philadelphia has effected arrangements for practically introducing, upon a large scale, an extremely simple and excellent process for impregnating shingles with antiseptic and non-combustible substances, the immediate object of the process being to prevent the destruction of shingles by rot, and to render them proof against fire under ordinary contingencies.

Good Health.

Hints On Bathing.

The following is an extract from an interesting paper read by Dr. Thomas Bond at an "education conference" of the society of arts, in London: In taking a cold bath in the morning the surface of the body should be warm and moist; therefore the bath should be taken immediately on rising from the bed, and before the surface of the body has had time to cool, or the capillaries to contract. The shock of the cold water should cause them suddenly to contract, then quick reaction will take place in the same way as after a Turkish bath. Unless this reaction occurs after the bath there is great danger of getting a chill; at any rate the full benefit of the bath is not obtained. Persons with weak circulation, who cannot take an ordinary morning bath, often derive great benefit from the Turkish bath. It opens the pores and improves the circulation of the skin, so that the shock of cold water can afterwards be borne. The same person can generally bear a cold bath if they get for a few minutes into a warm bath first, and then immediately plunge into cold water. By these means an active reaction is brought about. Warm baths should, in my opinion, never be taken on rising except under the above conditions, but warm baths at night are often desirable. They should be taken just before going to bed, when they have the effect of relaxing the muscular system and of promoting sleep by soothing the activity of the brain by the withdrawal of blood from it. I do not think warm baths at night are weakening, as the depression of vital energy which may occur is recovered during sleep. In river and sea bathing, persons should be careful not to remain in the water too long, nor should they exert themselves sufficiently to cause exhaustion, as the power of reaction is much impaired thereby; neither should persons get into cold water when cooling. The old-fashioned idea that persons should wait to cool before plunging into the water is a fallacy. There is no danger in plunging into the coldest water in a state of profuse perspiration, if the heart and arteries are in a healthy state. Of course it would be unwise to do so immediately after a full meal, as the action of the heart might be impeded by the distended stomach.

Cure for Hiccoughs and Colds.

Editors Press:—Having seen your clipped article, credited to Pottsville *Miners' Journal*, entitled "Hiccoughing to Death," I deem it a boon that price will not measure or gratitude fathom in the breast of the afflicted sufferer, when he is informed that "verartria" powder, when agitated in a vial and the stopper removed, and the dust thus raised smelled up into the nostrils, so acts upon the mucous membrane, as a stimulant, as to stop the hiccough, so that he will not hiccough another single time after so inhaling the powder through the nose.

Nothing can possibly be a more perfect success than the effect of the above remedy. "Verartria" is a salt obemically produced from the medicinal herb, white hellebore. I would say that "verartria," used in the same way, is beneficially employed in colds, where the nostrils are closed or where the eyes are rendered heavy by a stoppage of the lachrymal or tear ducts, and also produces sneezing, which is nature's simplest remedy to clear the organs of the head when oppressed by a sluggish action of the emunctories of the part. We have seen a case of 80 hours' constant distress and many other more ordinary cases of hiccoughs cured as above stated. It can be procured at any drug store. Emory L. Willard, M. D.

S. F., Dec. 9th, 1876.

Do Not Give Opium for a Cold.

Hall's Journal of Health cautions against the use of opiates for colds. It says: Cough, in a cold, is nature's effort to eject from the lungs what does not properly belong there; precisely as when a crumb "goes the wrong way," that is, into the windpipe instead of the stomach. In each case opium diminishes the sensibility of the parts so that they do not feel the presence of the offending particles, and nature is checked. Any one can see that because a dose of morphine quiets the cough from a crumb in the windpipe, it does not "cure," it does not bring it away. Most precisely so is it with phlegm in the lungs; it has the effect to keep it there to accumulate, just as water does in the spout of a pump, when little boys close the mouth of it with their hands, pumping on all the time. Here the comparison ends. However long the water is kept in, it is water still. Not so with phlegm in the lungs; every instant it is kept there, the heat of the parts being 100 degs. Fah., it evaporates, becomes less watery, and of consequence more tough, harder to dislodge, increasing in bulk by accumulations which also grow thicker by evaporation, until "the pipes" are plugged up with tough phlegm so that the air passes it with increasing difficulty, and the patient wheezes like—an asthmatic; the lungs labor fearfully for breath, they cannot get enough air, hence the blood becomes impure and thick, and in this condition goes to the heart, which labors to send it on through the body, but cannot wholly empty itself at each beat, as is natural; and the blood still pouring into it from the lungs, it gets preternaturally full, hence its fibers are relaxed and then distended: this is "enlargement of the heart." For a while nature struggles to relieve herself of this surplus, until the laboring heart has expended all its strength in the vain effort, until it cannot give another beat, and suffocation is the instantaneous result.

Disinfectants.—*Nature* says: A committee appointed by the Russian government at the St. Petersburg medical academy, to investigate various proposed antiseptics and disinfectants, have arrived at the following conclusions: 1. Carbolic acid is the most efficient means against the development of ammoniacal gas, putrescense, and development of lower organisms in organic matter under decomposition, and is therefore the best antiseptic. 2. Vitriol, salts of zinc, and charcoal, are the best means for deodorizing matter under putrefaction. 3. The powders of Piot. Kittary, besides the properties they share in common with other carbolic disinfectants, deserve attention because of the isolated state of phenol in them and their contents of quicklime, which absorbs moisture—the principal condition of each kind of putrefaction—as also some part of the gases. 6. Chloride of lime and permanganate of potash quickly destroys the lower organisms in putrid liquids. 7. The disinfectants certainly retard the putrid processes in organic bodies, but their influence is only temporary; as a means of purifying air in dwellings their influence is very small, if not totally *nil*, because of the very small degree of concentration of their ingredients that can be used without injuring the health of the inhabitants. 9. For uninhabited buildings the best disinfectants are nitrous acid and chlorine.

Ruined by Rivers.—The *Journal of Chemistry* notes the fact that the French shore of the Mediterranean divides into two distinct parts, which offer a strange contrast to each other. From Genoa to Marseilles all is life and beauty; "all the world" goes thither for pleasure or health. From Marseilles to the coast of Spain, one finds everywhere solitude and desolation. The latter region was at one time highly prosperous, but it has been entirely changed by the immense quantities of sand and mud brought down by the rivers. Narbonne, in the time of the Romans, communicated directly with the sea. It had its lagoon, like Venice, and a deep canal afforded passage to heavy merchant ships and the tiremes of the imperial fleet. The lagoon is now blocked up, and the commerce, wealth and activity are all gone. Arles was another very important city; it had two ports, like Alexandria, and was so rich and powerful that a poet of the fourth century spoke of it as the "Rome of the Gauls." The Rhone, with its annual seventeen million cubic meters of sediment, has been its ruin. So with other cities; but while they have become separated from the sea, agriculture is gradually taking possession of the land won from the water, and the vine and olive may yet restore a part of the ancient prosperity.

The Temperature of the Soil.—In the bulletin of the Scientific Association of France, MM. Becquerel gave a report of the observations of temperature made at the Museum of Natural History, during 1875, with electrical thermometers placed in the air, and in soils covered with grass and soils cleared of vegetation. From the results of the last four years it is shown that the mean annual temperature of the two soils, at a depth of 39 inches, and that of the air, is nearly alike; that at depths of 4 to 24 inches the influence of vegetation is to raise the annual mean 0.7° C. above that of soils clear of vegetation; and that during these four years the temperature of soils covered with grass or any other vegetation has not fallen to the freezing point, a fact of no little importance to horticulture.

Domestic Economy.

Science in the Kitchen.

A lady writer for the New York *Tribune* says: Of late it has become quite the fashion in many circles to talk about food, its preparation and especially the adaptation of varieties of food to supply the diverse physical demands occasioned by diverse industrial and intellectual labors. "I am going to write a cook book in eight chapters," said one of our most brilliant journalists, a man as skillful in selecting his food as in selecting his words. "One chapter shall be how to make perfect bread; another shall take up coffee and its making, another the potato, another eggs, another steak. Complex dishes are good in their way, but what we most need to know is how to prepare the simple and ordinary articles of diet in the most perfect manner."

The establishment of cooking schools gives the best solution of the difficulties under which our housekeepers labor that has yet been offered. In our large cities cooking classes are being formed and taught by accomplished cuisiniers, men who have served long apprenticeships at the art, and understand the chemistry of cooking no less than the mechanical manipulation of food. The attendants on these classes are not servant girls chiefly, but their mistresses, ladies of refinement and culture who have become at last convinced that to secure the health and happiness of their families science in the kitchen is an indispensable requisite. The ordinary programme at these schools is the preparation of a bill of fare for dinner, embracing soup, fish, roast, entrees, entrements and dessert. The *chef*, in his white cap and apron, in the presence of his class, weighs, compounds and cooks the various articles constituting the bill of fare, so that the pupils see with their own eyes how everything is done, and learn all the little niceties of preparation on which the excellence of food so much depends. The arts of flavoring, of serving, of garnishing, taught in this way, are learned with comparative ease, and the lessons inculcated of exactness in weight and measure, of precision in mixing and manipulating ingredients are invaluable. Only by such instruction as this can cookery ever be made to take its proper place among the fine arts, and the cook in a family hold equal rank, as she should, with the music teacher or the drawing teacher. Only in this way can the kitchen be lifted into equal honor with the parlor. Equal? It should be held in highest honor, as the engine room is held in our factories and machine shops, for without it what are all the rest worth?

The time will come when, connected with our schools, there will be kitchens in which cookery will be taught as a part of the regular instruction of the pupils, for this is a practical age, and the question continually agitated by our educators is how shall our youth be best fitted to engage in the active duties of life, and we shall begin our study and our teaching, after having swung around the whole circle of the sciences and the arts, where life begins—at the stomach.

BREAD WITH POTATOES.—Potatoes assist fermentation, and render the dough lighter and more tender when we wish to make bread in haste. Peel and boil, or steam, a quart of potatoes, mash them very fine, or, what is better, press them through a colander while they are hot, add half a pint of water and a salt-spoonful of salt, stir them into a batter, and then put in an yeast cake previously softened, or a teacupful of lively yeast, and make into a dough with two quarts of sifted flour. Knead half an hour, put plenty of flour on your board, and knead it until it cleaves from the board with a light tearing sound. Be careful not to let your dough grow very cold while you work it. Divide into loaves, and set to rise in a warm place. Watch the process, and when the loaves are quite light have your oven in good heat and bake three-quarters of an hour. This bread is very nice if well made, *i. e.*, the potatoes made very fine and kept hot, and perhaps the flour warmed also; but it is not so good when stale as that made with a scalded sponge.

TOMATO SOUP.—To make one gallon, take three quarts of beef stock; one medium-sized carrot; one medium-sized turnip; one beet; one small onion; peel and cut these up in small pieces; then add three quarts of best fresh tomatoes, and boil for an hour. Strain through a sieve; then put five ounces of butter in a saucer; heat it to a light brown; now, take it off the fire, and add, while hot, three tablespoonfuls of flour. Put in the boiled tomatoes, and season to your taste. Add one dessert spoonful of sugar. Put it on the fire and stir till it boils. Let it boil for five minutes, skimming it the while. It is now ready for the table. More sugar and flour can be added, if necessry.

EGG TOAST.—Break the eggs carefully into water boiling hot, but not really boiling. Let them simmer till they are delicately cooked or till the yolks are covered with a white film, then take up with a skimmer and lay on slices of buttered cream toast. Salt the water in which the eggs are boiled, and see that it covers the eggs. Butter and pepper may be added on the table.

APPLE WATER.—Cut some very tart apples fine, pour over them boiling water, and let them simmer gently for half an hour. Strain off the liquor and sweeten to taste.

INSECTICIDES.—The *Chemist* gives the following abstract of a paper by Mr. Massie, in the *Repertoire de Pharmacie*: "For three years the author has made use of bars of forged iron, weighing about one and a half kilograms, for the preservation of barley, rice, bran, wheat, etc., in whitewood boxes, holding 150 liters. Though it is difficult to explain the action of the metal, it is none the less an excellent preservative. Metallic mercury produces similar results, and in certain cases is more efficacious than iron. That he might be in possession of certain data on the efficacy of two metals, the author experimented by placing in glass vessels, holding one liter, the following substances—viz: barley, rice bran, meal, ergot of rye, cantharides, and white biscuit. Three flasks were filled with each. In one a piece of iron (80 grams) was placed; in the second mercury (5 grams); to the third no addition was made. With one exception the vessels were not closed, and were allowed to stand in an ordinary well-lighted room from May 7th, 1875, till December 2d in the same year. On the latter date they were examined, when it was found that the sound specimens, without addition, in almost every instance had suffered deterioration to a greater or less extent, and in two or three weevils had made their appearance. The same specimens with iron or mercury were unaltered, save the bisouit with iron, in which a few holes could be counted. The specimens containing weevils originally did not seem to be affected by iron; but mercury seems to have had a decided effect in checking the multiplication of the insects, if it did not destroy them altogether."

DANGER OF PORTABLE STEAM BOILERS.—*Iron* says: The chief engineer of the Manchester steam users' association, Mr. L. E. Fletcher, who has done yeoman service to the public by his unceasing efforts to reduce the number of deadly accidents from imperfect steam boilers, at the last meeting of the association brought forward the subject of portable boilers and their special dangers. Portable boilers are often placed under the charge of agricultural laborers and other persons who are below the average in mechanical skill; and it is important to know that in addition to this source of peril there is a great neglect prevalent among their constructors with respect to their proper fitting with safety valves. It is obviously essential that in ignorant hands the safety valve should be placed beyond the danger of being tampered with; but these valves are, Mr. Fletcher tells us, so arranged that an extra turn of the thumb screw on the spindle of the screw balance with which it is loaded, frequently suffices to lock the valve fast and render it perfectly useless, thus bottling up the pressure and leading to the bursting of the boiler. Many cases of fatal accident from the bursting of portable boilers are on record. By seven which were quoted twenty persons were killed; in one of them eight persons perished. Mr. Fletcher's conclusion is one in which most sufficiently informed and competent judges will agree—namely, that the safety of the public from the risk of boiler explosions can only be secured by legislative enactment.

HEN'S EGGS AND COLD.—The degree of cold which a hen's egg can bear without losing its power of development has lately been investigated by M. Colasanti. Having first observed that salt water at ordinary temperature did not affect the development of eggs, he buried some eggs in a freezing mixture of ice and ordinary salt. Of any three or four treated thus, one or other always breaks its shell, and the contents both of these and of the unbroken ones were found solidly frozen. After remaining one or two hours in the mixture (the temperature of which quickly went down to from —7 degrees to —10 degrees C. for 30 to 40 minutes, rising again to —4 degrees or —5 degrees C. by the end of the second hour), the unbroken eggs were taken out, washed and dried, and placed in the hatching oven, having a temperature between 36 degrees and 40 degrees C., and after 10 days they were examined. In every case a normal embryo was found to be developed, without the least trace of anomaly. They were in all respects like the normal embryos of eggs that had been placed in the hatching oven without previous exposure to cold.

COLD IN ITS RELATION TO HIGHT.—According to some remarks of M. Martins, of Montpellier, cited in the *Belgique Horticole*, the intensity of cold at night diminishes up to a certain hight. This phenomenon was tested by M. Martins by placing thermometers in the Botanic garden and at various hights on the cathedral tower. In clear nights the increased warmth at a higher elevation is the most perceptible; in dull nights there is little or no difference. The reason of the greater injury inflicted on the lower branches of shrubs, etc., is thus accounted for.

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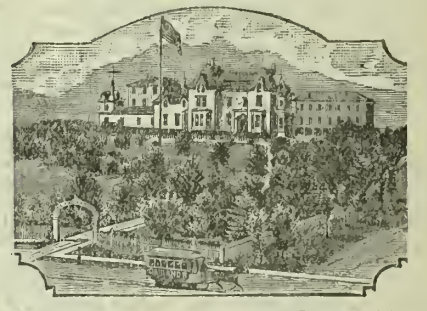
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Continued from Page 417.

ing gradually to its posterior extremity, and composed externally of portions of leaves and bark, mostly ovate in shape, and from one to two lines in greatest diameter, in most cases laid flat on the silken web, and not overlapping each other. Chrysalis pale tawny, shining, smooth, of uniform thickness throughout.

Length, 0.40 inch.

On trunks of pine trees, Strawberry valley, Siskiyou county. Hy. Edw.

Psyche coniferella. Hy. Edw. n. sp.

Chrysalis case a little over an inch in length, thickened anteriorly and composed of fragments of the leaves of pine, about three lines in length, laid in rows upon the silken web, and overlapping each other, in the manner of *P. graminella* and other European species. The fragments diminish in length on the posterior layers.

Grass Valley, Cal. On palings and trunks of pine trees. Hy. Edw.

Œceticus Davidsonii. Hy. Edw. n. sp. (See engraving.)

Chrysalis case about one and a half to one and three-fourth inches in length; stout, a little thickened in the middle, and composed of pieces of sticks or twigs from one-third to one and a quarter inches in length, laid side by side longitudinally, one or two pieces nearly always extending posteriorly some distance beyond the termination of the case. The fragments with which the case is covered are of different lengths, and are about 15 in number, the interstices being filled with wood dust (most probably produced by the jaws of the insect itself,) closely woven into the silken groundwork of the case. The edges of the pieces of wood are always neatly rounded by the insect, and all outstanding branches are bitten off. Chrysalis, with the abdominal portions, light chestnut brown, with the wing cases almost black. It is nearly tubular in form, smooth, with some small hooks on the abdominal segments.

Length, 0.65 inches.

Discovered by Prof. Geo. Davidson on Mt. Diablo, on the branches of *Castaneopsis chrysophylla*, Dougl., (chinquapin chestnut.) I have much pleasure in recording this interesting discovery by attaching to the species the name of our respected President.

It will be observed, both in the present species, and one closely allied to it from Australia, that there are, as I have showed, in most of the cases, some pieces of twigs longer posteriorly than those of which the remainder of the case is composed. It has struck me that these may be intended as a means to assist the male insect, or arriving at the perfect state, to escape from the body of the tube, the twig affording foothold and enabling the creature to draw its somewhat unusually long abdomen from the aperture. I do not state this as a fact, but the subject is worth the observation of those who may be fortunate enough to have the opportunity. I suspect that the cases containing males only have these lengthened sticks, but if this be so, we are utterly at a loss to understand the process by which the creature arrives during the caterpillar stage, at a knowledge of its sex, and so frames its habitation accordingly.

The Season.

The chances of the season are now being discussed with deep concern in all circles of California society. The anxiety of the farmer is reflected upon all lines of life and effort. The purchasing power of our agriculturists is the great factor in the city's prosperity, and all calculations hinge upon it. In the country the continued cloudless skies are clouding many an outlook for comfort and prosperity. We have had during the week several indications of a rainfall, but each time they have cleared.

Although the darkest anticipations are indulged in, it is hopeful to seek what promises remain for the longed-for rain. A correspondent of the *Bulletin* argues an abundance yet to come, and reasons in this wise:

"I have been searching the weather records since 1849 for a parallel to this winter's weather, and I find one winter that resembles this in an extraordinary degree, viz., that of 1854-55:

	1854.	1876.
August	.01	.02
September	.15	.26
October	2.41	2.69
November	.34	.23
December 1st to 18th	.05	.00
Total	2.97	3.20

"The similarity will be more apparent when the average rains for October, November and December 1st to 18th are taken into account, which are about 6-10 of an inch to October, 2½ inches in November, and 2½ inches from December 1st to 18th. Now, if the weather of this season continues to follow the peculiarities of that of 1854 as closely as it has done to date, (and I think it will to a considerable extent,) we shall have within two weeks from date heavy rains with high winds, and shall have abundant showers at intervals throughout the spring months.

The rainfall of 1854-5 up to December 30, 1854, was	2.97 inches
Afterwards	20.71 inches
Total	23.68 inches

"It is worthy of remark that the least rain we have had in any season since 1849, after two inches or over in October, followed by light rains in November, was in 1859-60, when about 20¼ inches fell, so that, judging from the past, we may expect at least 17 inches more during the balance of this season."

Hedges on Tule Lands.

Some have settled upon a wire and post fence as the best for tule lands, while others have adopted the post and board fence, driving the posts and using but two boards, to make a cattle fence. Those who have tried the wire fence and have abandoned it, say the wire rusts or rots off too soon where the same goes through the post when the same is exposed to the annual overflows, and if there is any current in the water, the wires catch drifting tule and other drift till the weight and working of the water and winds loosen the posts and finally destroy the fence. About the same objections are urged against the post and board fence. The whole subject seems to be involved in difficulties, which can only be settled by the discovery of some mode of making a fence not heretofore used, or some material not heretofore applied. The Osage orange, though very successful as a fence on rich bottom lands in this State, has never to our knowledge been tried as a fence for the tule lands. A circumstance has come under our observation, which is at least very suggestive in this connection. We had an Osage orange hedge running across a low hollow place on land adjoining the tule. This land was not generally overflowed, unless some of the levees on the Sacramento river gave way and let the water run over the land. The break that occurred last winter in the levee below Washington, furnished an occasion of this kind. The water overflowed the land on which the hedge was growing, and filled the low hollow to the depth of four or five feet deep, and remained there all the latter part of the winter and spring. In the middle of June the water was at least four feet deep on some portions of the hedge, and did not fully dry off until quite late in July. Notwithstanding this condition of things, the plants leaved out at the usual time, and grew thriftily and continued to do so all through the season, showing no signs of injury from the water or any other cause. There is not at this time any perceptible difference in the appearance of the hedge thus covered with water and that the water did not reach at all. We think this was a pretty severe test of the ability of the Osage orange to withstand the effects of a prolonged overflow of water, and as an indication that the same may be successfully cultivated in a tule as a fence. The soil where the plants are planted would have to be cultivated, and a strip on each side to protect the hedge from fire, and, this being done, it is our opinion that the Osage orange will make the cheapest and best fence in the tule that has yet been tried. In this connection we would mention the fact that the Osage orange is one of the most rapidly growing trees we have, and, as a fence for tule is wanted mostly for cattle, and not for hogs, if planted in the hedge form and plashed or bent down, say at two years old, and then allowed to grow without other trimming or plashing, it will grow up and answer the purpose of such a stock fence, and at the same time form one of the best wind-breaks that can be grown. Grown in this way the larger trees will soon acquire such a size as to render them valuable for timber, and then they may be cut out for that purpose without injury to the fence or to the wind-break, as the sprouts that will immediately spring up from the stem will rapidly supply the place of the old tree.—*Record-Union.*

F. A. Hill and Salinas Gang Plows.

EDITORS PRESS:—Your correspondent did not intend such prominence either to his criticisms or his commendations as has been given to them in one of the past numbers of the PRESS, by a person signing himself "F. A. Hill." As to our motives in giving our notes, they are fully explained and vindicated in the article to which Mr. Hill refers, and we shall give no other. How Mr. Hill, after an introduction as reporter of the RURAL PRESS, and two days spent together in the examination of his exhibits and trials of his plow, can reconcile the statement that "the reporter of the PRESS was not on the ground," with truth, we will leave with himself to decide. Finally, as Mr. Hill has wantonly attacked our good name in the columns of the PRESS, we require him through these same columns either to prove his charges or else to stand at the bar of public opinion—a convicted falsifier. C. N. WEST.

Dec. 19th, 1876.

ALMOND GROWING.—S. H. Olmstead writes to the Santa Barbara *Press*: In the spring of 1860 I planted sixteen acres of "root grafts," setting them 14x20 feet, or 155 trees to the acre, which proved almost a total failure, only 20 grafts growing. The following spring I replanted the ground with "dormant buds," adding 16 acres more. This was another failure; only about 200 of the buds started. The next year I re-budded a few of the trees, and in the spring of 1872 I planted 1,000 yearling trees, which grew and have done well. In the spring of 1874 I planted 500 more, and the following spring I removed from the orchard over 1,200 "seedling trees" (those on which the buds had failed to grow) leaving none but the genuine "Princess de Langnedoc" variety, of which there are 2,260 trees, occupying 14½ acres, from which nuts were gathered this season. The orchard yielded 17,700 pounds (an average of about 8 pounds to the tree, or 1,240 pounds per acre) against 10,000 pounds last year and 400 pounds the year before. I commenced the harvest this year on the 25th of September, and finished on the 19th of October, employing fifteen men, who boarded themselves. I paid $1.25 per day for gathering, and 1¾ cents per pound for shucking. There were 110 days' labor at $1.25 per day, making $137.50, and 17,700 pounds of nuts at 1¾ cents, $309.75—total cost $447.25, or 2½ cents per pound. The fruit will shrink in drying and preparing for market about 25 per cent., which at present prices will leave considerable over $100 per acre, clear of all costs and expenses. The trees are perfectly healthy and vigorous, and the fruit improves in size and quality as the trees grow older, some of the oldest trees yielding 50 pounds of nuts. My failures in starting the orchard were owing to want of experience in tree-planting, and not to any difficulty in raising the almond, which is easy of propagation and a rapid grower. Shall fill out the orchard this winter with yearling trees from my own nursery.

Lemon Growing.

The San Jose *Mercury* of December 17th: says: We have been presented, by Mr. W. H. Rogers, with a bunch of three of the finest "Sicily" lemons we lately have seen, which were grown in his orchard in the foothills, near Los Gatos. The culture of oranges and lemons is, while not of particularly recent attempts in this valley, still of decided infancy as regards the success which has attended the efforts, and the establishment of their culture upon any scale of business, or attention to the study of growing of what is probably not an indigenous plant in this portion of the State. Mr. Rogers' efforts, have, however, met with a success the most gratifying. His orchard embraces at the present time about 100 bearing lemon trees, and 60 oranges, all of which are now of but four years' growth from the setting. The lemon trees, though of the dwarf species, have this year borne from 50 to 100, or over, lemons each. Mr. Rogers expresses the opinion that with proper treatment the culture of both these fruits could be made extremely profitable in the "narrow belt" of the Coast range, if not throughout the valley. By experiments extending over several years he has ascertained that the same treatment will not do for both; that while the roots of the one spread near the surface the other takes a deep shoot, the only proper way in which to grow it being the sinking of a pipe two or three feet deep into the ground at the time the trees are set, and occasional watering by means of the pipe, which naturally attracts the roots and gives the desired moisture, without breaking the surface, which is found injurious to the tree. Mr. R. also informs us that by the course which he has pursued he has picked ripe lemons from his trees every month since November, 1875, and that indications point to even better results when the trees shall have arrived at maturity. He has some banana plants in fine appearance, and predicts a crop next summer. Thus far all attempts at the raising of cocoa nuts have failed, though he still hopes to succeed in this direction. The results of these experiments clearly show that with proper treatment, even the exotics of the southern portion of this State can be raised in Santa Clara valley and made paying as business investments.

WINTER APPLES.—The Merced *Argus* says: Wm. A. McCreary, an orchardist on Merced river, brought to our office on Saturday last a box of the finest winter apples that we have seen in the market this season. In the box were some six or seven different varieties, all large and of most delicious flavor. Mr. McCreary owns a small farm four miles above Snelling, on the west side of the Merced river, upon which is one of the most valuable orchards in the county. The orchard consists of several acres of apple, pear, peach, plum, apricot, nectarines and other kinds of fruit in great variety, care having been taken in selecting the choicest kind of fruit-bearing trees. Adjoining the orchard is a vineyard, containing all of the finest varieties of vines introduced into the country, the product of which finds a ready market in the adjacent towns.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

FOR WEEK ENDING DECEMBER 12TH.

TRAVELING SATCHELS.—Elizabeth W. T. Keeney, S. F.

APPARATUS FOR HYDRAULIC MINING.—Geo. W. Cranston, S. F.

FARM FENCES.—Charles Cremer, Red Bluff, Cal.

MACHINES FOR STITCHING MATTRESSES.—David Harris, S. F.

MACHINES FOR STUFFING MATTRESSES.—David Harris, S. F.

SECTION JOINTED NOZZLES FOR HYDRAULIC MACHINES.—Richard Hoskin, Dutch Flat, Cal.

FEED RACKS FOR HORSES.—Joseph Oscar Johnson, Salinas City, Cal.

OIL CAN AND FAUCETS.—Alfred H. Marshall and Geo. W. Marshall, Lower Lake, Cal.

THRESHING MACHINES.—Geo. R. H. Miller, Oregon City, Oregon.

SETTEES.—Hiland A. Moore, S. F.

OIL CUPS.—Wm. T. Garratt, S. F.

MANUFACTURE OF SOLDER WIRE.—Hiland G. Hubbard Placerville, Cal.

SAFETY GUARD OR COCK EYES FOR HARNESS.—Fayette, W. Knapp and Christopher Schalbhorn, Fiddletown, Cal.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

General News Items.

BERTHS for shipping are now plentiful at the wharves.

CARDINAL CONSTANTINE PATRIZI, Dean of the Sacred College, is dead.

CHARLES E. CHENERY, commercial editor of the San Francisco *Chronicle*, died on Sunday last.

FOUR HUNDRED employees in the bureau of printing and engraving at Washington were discharged Saturday, about two-thirds being women.

THE Charter Oak life insurance company of Hartford has purchased $3,000,000 of real estate on Broadway, Wall and Broad streets, New York.

THE poultry ring is reported as now pretty thoroughly broken up by the action of the two large firms who are selling to the best bidder whoever he may be.

THE Colorado steam navigation company's steamer *Montana* was burned in the Gulf of California on December 14th. The passengers and crew were saved, but the ship and cargo are a total loss.

A TERRIBLE colliery explosion occurred on the 18th, in the South Wales company's pit, near Newport. Seventeen bodies have been recovered, and many of the miners taken out alive are seriously, and some fatally injured.

THE accounts of the famine received from Madras are worse than those from Bombay. Large numbers of starving people are flocking into Madras to escape death from starvation. There is much distress existing in the country districts.

IT is rumored that the New York Central railroad company are about to extend their freight business to include ocean transportation, and that a contract has been made with John Roach & Son for the construction of eight iron steamships, of 4,000 tons burden.

IT is stated on good authority that the Khedive is dissatisfied with his American military officers, and has notified them that contracts will not be renewed. The policy of this step is questionable, as a renewal of the Abyssinian war is considered imminent.

Beware of Dry Seasons!

Cultivate Irrigated Land and get Two Crops a year. No Failure.

Irrigated Land for sale in quantities to suit, on the installment plan; four years' credit, no interest charged. NO CHARGE FOR WATER FOR IRRIGATION. On railroad, only nine hours from San Francisco. Adapted to the growth of semi-tropical fruits and all vegetable productions.

THE BEST ALFALFA LAND IN CALIFORNIA.

Call or send for Maps, Circulars, etc.

CENTRAL CALIFORNIA COLONY,
306 Pine Street, San Francisco.
M. THEO. KEARNEY, Manager.

To the People's and Grangers' Immigrant Bureau, 40 California street, S. F.

Gentlemen:—I see by a notice in the PACIFIC RURAL PRESS that you have many applications from persons wishing to purchase lands. I offer for sale ninety acres of the Mount Pleasant ranch, situated on the turnpike road between Auburn and New Castle, Placer county, being two miles from Auburn and one mile from New Castle. Both places are on the C. P. R. R., and have Express office, Post-office, etc., and are good shipping points for produce over the mountains. About twenty-five acres of said land are under improvement; two acres in Berries, a few choice Grapevines, and a few fruit trees in bearing. The soil is from three to eight feet deep and well adapted to the growing of all kinds of Fruit, Grain or Alfalfa. Good facilities for irrigating from Bear River ditch. This is one of the best fruit sections in the State, large quantities of all kinds being shipped from here daily during the Summer season. The purchaser will be given house and barn room free until he can build. Reference may be made to the Postmaster at New Castle or Auburn, or to O. T. Adams, New Castle, who owns land adjoining mine. Title, U. S. Patent. My reason for wishing for wishing to sell is old age and inability to labor. Price, $1,800. JAMES MUNSELL Sr.

Apply to JAMES MUNSELL, Jr., 224 Sansome St., San Francisco, Cal.

STOCKTON, CAL., December 9th, 1876.

To the California Farmers' Mutual Fire Insurance Company, S. F.: Gentlemen—Herewith allow me to express my thanks to you and your company for the promptness you have manifested in adjusting my loss by fire, which occurred on the morning of November 9th, 1876, and the payment of the same in full, amounting to $650. I shall never fail to recommend your company to the farmers of California desiring insurance, as being a fair and equitable company to do business with. Trusting that your company may continue to prosper and retain the confidence which it so richly merits, I remain, respectfully yours,
WM. PRESBURY.

ANY PERSON receiving this paper after giving an order to stop it, may know that such order has failed to reach us, or that the paper is continued inadvertently, and they are earnestly requested to send written notice direct to us. We aim to stop the paper promptly when it is ordered discontinued.

To have the money needlessly spent every year would give substantial comfort to all. To have the money saved by buying SILVER TIPPED boots and shoes would buy each parent every year a pair of new shoes. Also try Wire Quilted Soles.

MENZO SPRING,
Manufacturer of
Dr. Bly's Patent Artificial Limbs.
OFFICE AND ADDRESS,
No. 166 TEHAMA STREET,
Cor. Third, bet. Howard and Folsom, San Francisco.
eowbp

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

San Francisco, Wednesday, Dec. 20, 1876.

The chances of the season are still the one topic of conversation in trade circlea. Merchants report business exceedingly dull, except in lines of goods suitsble for the holidsy demand. Holders of produce look to the skles for the prices wbich they may secure for amounts now in hand. In Wheat the week has scored nothlng notable. There is a gap still between the views of holders and shippers, snd the slighily improved foreign advices of yesterday hsve not yet led buyers to ralse their bids above $2 for shipping Wheat. This does not meet holders' views.

Range of Cable Prices of Wheat.

The ocurse of the Liverpool quotation for Wheat to the Produce Exchange during the days of lsst week has been as reoorded in the following tsble:

	Oal. Average.			Olub.	
Thursday	10a	11d@11s	3d	11s 1d@11s	6d
Friday	10s	9d@11s	1d	10s 11d@11s	5d
Satnrday	10s	9d@11s	1d	10s 11d@11s	5d
Monday	10s	9d@11s	1d	10s 11d@11s	6d
Tnesday	10s	9d@11s	1d	10s 11d@11s	6d
Wednesday	10s	9d@11s	1d	10s 11d@11s	6d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.			Olub.	
1874	9s 10d@10s	2d	10s	4d@10s	7d
1875	10s 6d@11s	—	11s	—@11s	6d
1876	10s 9d@11s	1d	10s	11d@11s	6d

The Foreign Review.

London, December 18th.—The *Mark Lane Express* says: Reports of the growing crop, both here and on the Continent, continue satisfactory. Some of our conntry markets are firm notwithstanding the increased supplies, hut the provincial trade is generslly lethargic. Confidence has not been shsken, however, and holders submit to the temporsry lull without endeavoring to press sales. This week imports lnto London were 14,193 quarters, whereof 7,000 were from some American and Atlantic ports. It is quite possible that trade will continue quiet for the next week, ln consequence of the holldays and the indiaposition of millers to accumulate stocks at the end of the yesr, but the present condition of trade is healthy, and the rate of importation certainly below the country's evident requirements. Oalifornia supplies sre still in the distance, and the long pending question of peace or war in the East is still undetermlned. Feeding stuffs have improved somewhat during the week, mainly in consequence of increased imports of Maize, and considerable transactions occurred ln the latter for future delivery. The chief feature of the floating cargo trade has been the arrival at calling porta of several steamers laden with Ghirka Wheat, which is sold rather lower, there being also some reaction to the recent extensive bnsiness in Oalifornia Wbest afloat.

Freights and Charters.

Few Wheat charters, says the *Post*, were drawn during the past week. Rates are tending downward, and in one instance a vessel has accepted an offer of £2 to Liverpool. We quote nominally at £2@£2 6d to a direct port. Shippers experienced great difficulty in obtaining round lots of choice Wheat, as farmers are unwilling to sell, owing to the drouth. Until the rains fairly commence and the new crop gets under way, the outward movement of the Cereal will be small. A period of stagnation is therefore expected to rule in the freight market for some time to come. Vessels are constantly seeking outside buaineas, whereby they can get away from the port without loss. But even this department is likely to be overdone, as wants are few at tbis season of the year. Wheat tonnage on the berth aggregates 32,736 tons, while 39,836 tona of disengaged tonnage are in port. There are at present 7,877 tons engaged for miscellaneous purposes. The engagements of the week are: ship Northern Light, 1,859 tons, Wheat to Liverpool, £2; Antwerp, £2 5s; Br ship, Angerona, 1,292, chartered to arrive for Liverpool at £3 5s, has been rechartered for same port at £2 5s; Ger bark Germania, 389, Wheat to Great Britsin, prior to arrival, £3 5s; Br. bsrk Parknook, 790, Wheat to Liverpool, £2 3s; Oork, U. K., £2 5s 6d.

New York Grain Market.

New York, December 17th.—Cable reports have also been very unsatisfactory, and with limits of freight orders for Wheat, etc., reduced, transactions in Whest have been exceptionally smsll, with a slight decline in prices of inferior spring. Better gradea are held on Western limits, fully five cents per bushel above the prloes which shippers and millera are willing to pay. No. 2 Spring has sold at $1.29@$1.35; No. 1 at $1.36@$1.37; and fair to choice Winter, $1.34@$1.50. Corn is a trifle higher; 59@60c for prime Shipping. Barley is depreased and dull. Oats are firm. Flour is steady. These staples, together with most others, are held above the foreign msrkets, on the assumption that with comparatively light supplies, prices must sooner or later advance on the other side.

Chicago Grain Market.

Chicago, December 16th.—The leading Produce markets have been lrregular during the week, hut generally strong snd a shade higher. Wbeat receipts have been smaller, despite the cheaper rates of transportation that are now past, and the probabilities are thst no speedy rlse can now be reasonably expected, unless decidedly warlike news la received from Europe. The lncreased rates to New York have the effect of depressing prices here, though the free rnmors that such increase was expected had apparently no influence on the course of the markets. Receipts of Wheat the past week have been 301,000; Corn, 488,000; Oats, 183,000; against Wheat, 416,000; Corn, 194,000; Oats, 81,000, in the same week last year. Shipments aggregate 588,000, against 201,000 in the same week last year. Cash Wheat closes at $1.18; Corn, 45½; Oats, 33½. Provisions have been firm and higher.

Oregon Wheat.

The Portland *Commercial Reporter*, of December 7th, estimates that the exports from Oregon np to date have been 782,328 centala Wheat, and 51,622 barrels Flour to Great Britain, and 2,575 barrels Flour to Hongkong, against, for like time of last season, 680,498 centals Wheat and 9,442 barrels Flour to Great Britain, and 2,020 barrels Flonr to Hongkong. Excess so far thla season (Flour reduced to Wheat), 244,735 centals, and that the receipts at Portland have been 784,485 centala since the commencement of the hsrvest season of 1876-7, which, added to Flour received for a like time, gives the following:

Wheat, centals	784,485
Flour, reduced to Wheat	222,556
Total	(?) 1,040,041

There are now 15 or 18 vessels of the grain fleet in the river, and those on the berth are having quick despatch.

New York Wool Markets.

New York, December 17th.—The Wool market opened exceedingly dull for all descriptions, and continued so up to Wednesday, when an increased demand set ln, and at tho close wss qulte active. The Goods market is not in a condition satiafactory to manufacturers. The near approach of the new year, calling for a settlement of accounts, the tsking of stock and the nsnal closing up of yearly affairs, are the chief causes of the somewhat lighter inquiry. Prices may be still quoted firm. Salea for the week are 600,000 lbs Colorado, at 18@21c; 10,000 lbs heavy spring California, 20@24c; 124,500 lbs fall do, 16@22c; 150,900 lbs Texas, 18@29c; 30,000 lbs XX Ohio, 48c; 15,000 lbs X do 45c; 45,000 lbs combing and delaine do, 52@55c; 50,000 lbs do Jersey, 47½c; and 135 balea Donskoi, 52 do Rio Grande, 20,000 lbs Oregon, 100,000 lbs Wisconsin, 30,000 lbs No. 2 and above Ohio, 80,000 lbs washed do, 48,000 lbs unwashed and unwaahable do, 50,000 lbs Indiana sub-waahed, 30,000 lbs low domestic noils, 284 hags super pnlled, 475 do combing do, 60 do X do, and 12 do No. 1, on private terms.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week Nov. 28.	Week Dec. 6.	Week Dec. 13.	Week Dec. 20.
Flour, quarter sacks	23,659	33,426	23,221	73,080
Wheat, centals	369,423	254,366	285,027	339,886
Barley, centals	36,030	42,451	38,708	25,206
Beans, sacks	3,655	9,160	5,749	4,092
Oorn, centals	4,199	5,978	4,280	7,?95
Oats, centals	18,814	2,355	5,290	9,960
Potatoes, sacks	23,106	20,673	17,189	23,392
Onlons, sacks	1,790	1,298	1,146	1,252
Wool, bales	1,337	438	390	342
Hops, bales	1,274	78	.....	420
Hay, bales	1,019	976	1,035	1,621

Bags—The jobbing prices for Bags are possibly one-eighth to one-sixteenth cent leas than our quotations below. The market is weak and demand nominal. There are rumors a lost of the embarrasament of some of the large dealers, but nothing authentic is noted. The supply of Bags which must be csrried over is large.

Barley—Barley experiences a small sdvance in price. We note sales during the week: 1,000 sks Coast Feed at $1.20, silver; 1,500 do choice Feed at $1.25, half silver; 8,000 do choice Brewing, season's storage, at $1.25, gold, sold last week, but not before reported; 700 do Cosst Chevalier at $1.15, gold; 1,000 aks choice Bay Brewing at $1 25, gold; 3,000 do Coaat Feed at $1.17½; 700 do do, $1.20; and 300 do, $1.22½, silver; 1,000 sks choice Bay Brewing, $1.30, gold; 650 do Bay Feed, $1.22½, silver; 300 sks choice Feed at $1 22½; 500 do at $1.20; 2,500 good Coast do at $1.17½, silver; 500 sks choice Feed at $1.25 per ctl, half silver; 2,000 do Bay Brewing at $1.27½; 150 aks choice Feed at $1.27½ per ctl, silver; 1,300 do Bay Brewing at $1.27½; 1,000 do at $1.30 per ctl, gold.

Beans—Beans are unchanged.

Corn—Sales of Corn warrant a slight improvement ln qnotations. Tho market is quiet. We note sales st follows: 300 aks large Yellow, at $1.20, silver; 619 do choice at $1.17½, gold; 300 ska Yellow, at $1.20; and 1,000 sks of large Yellow, in lots, at $1.17½ ₱ cental, silver.

Dairy Produce—Butter prices are the ssme as last week. The supply is plenty, although not so much is visible as a week ago. Dairymen are looking for the drouth to advance their rates. Cheese is plenty. Eastern Oheese is now in market and quoted by dealers st 12@19c for the best New York.

Eggs—Eggs are weaker. The price now is 40@42½c for fresh California, with the lower figure prevailing.

Feed—An advance of Oil-cake Mesl to $35 per ton is the only change in ground Feed. Hay preserves its former range. Sales noted are few: 39 tons fair Wild Ost, $14; 29 tons Oat, $12.75; 180 bdls Wheat and Oat, $15.75; a possible extreme of $17 for Choice Wheat Hay is noted.

Fruit—The frnit stalls are still the bright spots on the city atreets. There have been large srrivals of imported frnits, including Bananas from the Hawaiian Islands; Oranges, Llmes snd Pineapples from Mexico; Oocoanuts snd Limes from the Society Ialands; and Lemons from Australia snd the Mediterranean. The first of the regular Los Angeles Orsnge orop arrived dnring the lsst week, and sold for $20@$25 per M. Los Angeles Lemons are now in market.

Hops—Sales have been made st reduced pricea. We note a sale of 20 bsles at 20c. per lb. Ten days sgo some of the Willow Grove Hops sold at $25. There is but little demand. Shippers sre wsiting to receive the results of their former ventur es and do not care to invest more at once. The best rsnge now quotable in thls msrket is 20@25c. The New York market for the week ending December 9th, is reviewed by Emmet Wells as follows:

The market continues dull and prices nnsettled The most noted feature of the trade this week, is the large falling off in the export demand. Our Hops do not seem to meet with the same favor in Germany that some of the early shipments did, and the fact is becoming more apparent, that we muat look to some other foreign market for an outlet to our surplus. It haa been said that England would take our Hops as soon as the price declined to about 25 cents. Good shipping Hops are already offering at this figure, yct we see no disposition on the part of English shippers to take hold.

Qnotations—New Yorks, good to choice, 27 to 30c ₱ lb; New Yorks, low to fair, 20 to 25c ₱ lb; Eastern, 25 to 28c ₱ lb; Wisconsins, 18 to 25c ₱ lb; Yearlings, 10 to 15c ₱ lb; Olds, all growths, 4 to 8c ₱ lb; Californians, 30 to 33c ₱ lb; Oregon, 28 to 30c ₱ lb.

Oats—Prices for Oats are advanced. Feed Oats are qnotable as high as $2 for the choicest. Milling Oats are nominal, owing to the absence of this quality from the market. There is no doubt a price better than our qnotation might be had, but we quote the price as nominal in absence of transactions. We note ssles: 600 ctls choice Humboldt Oats at $2, half silver; 600 sks Feed at $1.75; 100 do Milling at $1.90, gold; 230 sks choice Feed at $2; 300 ctls good Feed at $1.85 per ctl, gold.

Onions—Onions have improved during the week. Union City are now quotable at $1.00@1.25; Stockton and river at 87½c@$1 per ctl. The receipts have fallen off, and there has been a scarcity of supplies.

Potatoes—Potatoes have shown an upward tendency, as marked by our qnotations below. Thore is a wide range in the qnalities received and consequently in price.

Poultry and Game—Hens and Roosters are a shade lower. Geese are lower. Turkeys show a slight advance. Quail are sbundant and lower. Venison is now quotable at 7@9c per lb.

Provisions—We note no change in fresh Meats, but a slight cheapening in third quality Beef. The market for Cured Mests is unchanged.

Vegetables—There is no change in Vegetables.

Wheat—The trsde hss been slow and the market rather weak. We note sales which show the range of prices gained dnring the week: 2,200 ctls good Shipping, $2; 600 do, $2.05; 3,000 sks good Milling, $2; 2,800 do Shippiug, $2; 347 sks Superfine, $1.97½; 465 do good Milling, $2.05; 500 ctls Milling, $2.05; 100 tons at $2; 4,000 ctls Milling $2; 200 do Coast, $2.05; 300 do do $1.85, gold; 600 ctls choice Milling $2.05, and 400 aks Superfine, $1.97½ per ctl.

Wool—We note sales of 96,000 lbs fall Wool st 12½ @17½c. The trade is small and without life.

DOMESTIC PRODUCE.

[WHOLESALE.]

Wednesday, M., Dec. 20, 1876.

BEANS.

Bayo, ₱ ctl	2 50	@	2 75
Butter	1 50	@	1 75
Pea	1 80	@	2 00
Red	3 00	@	—
Pink	2 75	@	3 00
Sm'l white	1 80	@	2 00
Lima	2 00	@	2 25

BROOM CORN.

Common, ₱ lb	2	@	2½
Choice, do	3	@	4

COTTON.

Cotton, ₱ lb	15	@	18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	30	@	35
Point Reyes	35	@	37½
Pickle Roll	30	@	32
Firkin	25	@	30
W'st'n Reserve	16	@	25
New York	—	@	—

CHEESE.

Cheese, Cal., lb	10	@	15
do Old	—	@	—
Eastern	12½	@	15

EGGS.

Cal. fresh ₱ doz	40	@	42½
Ducks'	43	@	44
Oregon	37½	@	—
Eastern	21	@	30

FEED.

Bran, per ton	20 00	@	—
Corn Meal	27 50	@	—
Hay	10 00	@	16 50
Middlings	30 00	@	—
Oil cake meal	—	@	35 00
Straw, ₱ bale	70	@	75

FLOUR.

Extra ₱ bbl	6 50	@	7 00
Superfine	4 75	@	5 25
Graham, ₱ bbl	5 50	@	6 00

FRESH MEAT.

Beef 1st quality lb	4½	@	6½
Second do	3½	@	4½
Third do	2½	@	3
Mutton	4	@	4½
Pork, undressed	6	@	6¾
do, dressed	8¼	@	8¾
Veal	5½	@	6
Milk Calves	7	@	8½

GRAIN, ETC.

Barley, feed ctl	1 20	@	1 25
do brewing	1 30	@	1 35
Chevalier	1 25	@	1 40
Corn, White	1 17½	@	1 20
do Yellow	1 17½	@	1 20
Oats	1 80	@	2 00
Milling	—	@	2 00
Rye	—	@	1 75
Wheat shipping	1 95	@	2 12½
do milling	2 10	@	2 15

HIDES.

Hides, dry	20	@	20½
do wet salted	7	@	8½

HONEY, ETC.

Beeswax, per lb	25	@	27½
Honey in comb	10	@	12½
do Strained	6	@	8

HOPS.

New crop	20	@	25

NUTS—Jobbing.

Alm'ds h'd sh'l lb	—	@	12½
do, soft sh'l	16	@	18
Brazil do	14	@	16
Cal. Walnuts	9	@	10
Chile Walnuts	11	@	12½
Pecanuts	17	@	18
Peanuts per lb	8	@	9
Filberts	15	@	16

ONIONS.

Union City ctl	1 00	@	1 25
Stockton	87½	@	1 00

POTATOES.

Petalnma, ₱ ctl	75	@	87½
Salt Lake	—	@	1 50
Humboldt	85	@	90
Half Moon bay	70	@	90
Cuffey Cove	90	@	1 00
Early Rose new	60	@	70
Sweet	60	@	75

POULTRY & GAME.

Hens, per dz	7 50	@	8 50
Roosters	6 00	@	6 50
Broilers	5 00	@	6 00
Ducks, tame, dz	9 00	@	11 00
Geese, per pair	2 00	@	3 00
Wild Gray dz	2 00	@	2 50
White	—	@	1 50
Turkeys, Live, lb	17	@	20
do Dressed	18	@	21
Quail, per doz	1 00	@	1 25
Snipe, Eng., doz	—	@	1 50
Doves, per dozen	50	@	57
Rabbits	1 00	@	1 25
Hare, per doz	—	@	2 50
Venison lb	7	@	9

PROVISIONS.

Cal. Bacon, L't, lb	14	@	15
do Medinm	13½	@	14
do Heavy	—	@	13½
Lard	12½	@	14
Cal. Smoked Beef	10	@	10½
Eastern do	—	@	—
East'rn Sbonld's	—	@	—
Hams, Cal	14	@	14½
do Armour	16½	@	—
do Worster's	—	@	—
do Dupee's	18	@	—
do Davis Bros'	—	@	18

SEEDS.

Alfalfa, Chile lb	9	@	14
do California	15	@	17
Canary	10	@	12½
Clover Red	—	@	22
do White	50	@	55
Cotton	6	@	10
Flaxseed	—	@	3½
Hemp	6	@	8
Italian Rye Grass	25	@	30
Perennial do	20	@	30
Millet	10	@	12
Mustard, white	8	@	—
do. Brown	3½	@	4
Rape	4	@	5
Ky. Blue Grass	30	@	—
do 2d quality	29	@	—
Sweet V Grass	—	@	75
Orchard do	30	@	35
Red Top do	—	@	25
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	20	@	25
Timothy	10	@	10½

TALLOW.

Crude, ₱ lb	6¼	@	6¾
Refined	8	@	8½

WOOL, ETC.

FALL—			
Free	12	@	14
Choice	14	@	16
Northern	17	@	21
Burry	10	@	16
Oregon Eastern	21	@	—
do Valley	25	@	—

FRUITS AND VEGETABLES.

[WHOLESALE.]

Wednesday, M., Dec. 20, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M	30 00	@	35 00
Tahiti, do	—	@	—
Cal. do	20 00	@	25 00
Limes, ₱ M	5 00	@	8 00
Lemons Cal. ₱ 100	—	@	1 50
do Sicily ₱ b'x	8 00	@	—
Bananas, ₱ bnch	2 00	@	3 50
Cocoannts, ₱ 100	5 00	@	6 00
Pineapples, ₱ dz	6 00	@	8 00
Apples, ₱ box	40	@	1 00
Blackberries cse	—	@	—
Cherries ₱ lb	—	@	—
Figs	4	@	5
Gooseberries	—	@	—
Huckleberries	—	@	—
Strawbor's ₱ cs	—	@	20 00
Pomgranates	—	@	—
Raspberries	—	@	—
Currants, ₱ cs	—	@	—
Oranberries bbl	14 00	@	15 00
Peaches, ₱ lb	5	@	9
Pears, ₱ bx	75	@	2 00
Crab apples, ₱ lb	2	@	3
Grapes ₱ box	100	@	1 00
Rose of Peru	75	@	1 25
Muscat	75	@	1 25
Tokay	75	@	1 25
Quinces, box	75	@	1 00

DRIED FRUIT.

Apples, ₱ lb	4½	@	6
Pears, ₱ lb	7	@	8
Peaches, ₱ lb	7	@	9
Apricots, ₱ lb	10	@	12½
Plums, ₱ lb	3	@	4
Pitted, do ₱ lb	12½	@	14
Raisins, imported	3 25	@	3 75
Cal. Raisins box	1 50	@	2 50
Black Figs, ₱ lb	4	@	6
White, do	10	@	—
Prunes	12½	@	17
Citron	28	@	30
Zante Currants	9	@	10

VEGETABLES.

Asparagus ₱ lb	—	@	—
Beets ₱ otl	—	@	60
Cabbage, ₱ 100 lbs	50	@	60
Carrots, ₱ 100 lbs	37½	@	40
Cauliflower, doz	75	@	—
Celery, doz	50	@	—
Garlic, ₱ lb	2	@	2½
Green Peas ₱ lb	—	@	—
Green Corn ₱ doz	—	@	—
Snm'rSquash ₱ box	—	@	—
Marrofat Sqsh, tn	8 00	@	9 00
Artichokes, ₱ doz	—	@	—
String Beans, ₱ lb	—	@	—
Lima Beans	—	@	—
Parsnips, per lb	1	@	1½
Shell Beans	—	@	—
Peppers, green, bx	—	@	—
Cucnmbers, ₱ box	—	@	—
Tomatoes, box	60	@	1 25
Egg Plant, box	—	@	—
Rhubarb box	—	@	—
Lettuce, doz	10	@	—
Turnips, pr otl	50	@	62½
Mushrooms	—	@	—

LUMBER.

CARGO PRICES OF REDWOOD.

Rough, ₱ M	$18 00
Rough refnse, ₱ M	14 00
Rough clear, ₱ M	30 00
Rough clear refnse, M	20 00
Rustic, ₱ M	32 50
Rustic, refuse, ₱ M	22 50
Surfaced, ₱ M	30 00
Surfaced refuse, ₱ M	20 00
Flooring, ₱ M	28 00
Flooring, refuse, ₱ M	18 00
Beaded flooring, ₱ M	30 00
Beaded floor, refnse, M	20 00
Half-inch Siding, M	20 00
Half-inch siding, ref, M	16 00
Half-inch, Surfaced, M	25 00
Half-inch Surf. ref., M	20 00
Half-inch Battens, M	20 50
Pickets, rough, ₱ M	1 00
Pickets, rough, p'ntd	13 00
Pickets, fancy, p'ntd	26 00
Shingles, ₱ M	35 00

PUGET SOUND PINE—Retail Price.

Rough, ₱ M	22 50
Fencing, ₱ M	22 50
Flooring and Step, ₱ M	32 50
Flooring, narrow, ₱ M	35 00
Flooring, 2d quality, M	25
Laths, ₱ M	3 50
Furrink, ₱ lineal ft	—¾

REDWOOD—Retail.

Rough, ₱ M	22 50
Rough refuse, ₱ M	18 00
Rough Pickets, ₱ M	18 00
Rough Pickets, p'd, M	20
Fancy Pickets, ₱ M	30)
Siding, ₱ M	25 00
Surfaced and Long Beaded	37 50
	35 00
Flooring	25 00
Do do refuse, ₱ M	32 50
Half-inch surfaced, M	40 00
Rustic, No. 1, ₱ M	—¾
Battens, ₱ lineal foot	3c
Shingles ₱ M	

GENERAL MERCHANDISE.

WHOLESALE.]

Wednesday, M., Dec. 20, 1876.

BAGS.

Eng. Stand Wht	9½	@	10
Neville & Co's			
Hand Sewed, 22x26	9½	@	10
24x36	10½	@	11½
23x40	11	@	12
Machine do 22x36	9½	@	10½
Flour Sacks ⅛s	9	@	11
" " ¼s	6	@	7
" " ½s	4½	@	5
Hessian 60-in	11	@	12
do 45-in	9	@	10
do 40-in	8	@	9
Wool Sacks, 3½ lbs	45	@	50
do 4 "	50	@	52½
Stand. Gunnies	11½	@	12
Bean Bags	7	@	8

CANNED GOODS.

Ass't'd Pie Fruits in 2½ ₱ cans	2 75	@	3 00
do Table do	3 75	@	4 25
Jams & Jellies	4 25	@	—
Pickles ½ gl	—	@	3 50
Sardines, qr box	1 65	@	1 90
do hf boxes	3 00	@	—

COAL—Jobbing.

Australian, ₱ ton	8 00	@	8 25
Coos Bay	8 00	@	9 00
Bellingham Bay	—	@	8 00
Seattle	—	@	9 00
Cumberl'd	14 00	@	17 00
Mt. Diablo	5 75	@	7 75
Lehigh	—	@	22 00
Liverpool	8 50	@	9 00
West Hartley	—	@	14 00
Scotch	8 50	@	9 00
Scranton	13 00	@	16 00
Vancouver's Isl	10 50	@	12 00
Charcoal, ₱ sk	75	@	—
Coke, ₱ bbl	—	@	60

COFFEE.

Sandwich Island	—	@	21½
Costa Rica per lb	21	@	—
Guatemala	20½	@	21½
Java	—	@	23
Manilla	20	@	21
Grnnd in cs	25	@	—
Unicorv	27	@	—

FISH.

Sac. Dry Cod, new	5	@	5½
cases	6	@	7
do boneless	8½	@	10
Eastern Cod	8	@	8½
Salmon in bbls	6 50	@	7 25
do ½ bbls	3 75	@	4 00
do 2 ₱ cans	2 65	@	—
do 1 ₱ cans	1 80	@	—
do Col. R. ½ ₱	4 25	@	4 50
Pick. Cod, bbls	22 00	@	—
do ½ bbls	11 00	@	—
Mack'l, No. 1, ⅛ bls	11 00	@	—
" Extra	—	@	12 00
" in kits	1 25	@	2 50
" Ex mess	3 50	@	4 00
" Ex mess, ½ bs	—	@	12 00
Pic'd Herr'g, bx	3 00	@	3 50
Bos's Sm'k'd Her'g	40	@	50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl	2 00	@	2 25
Cement, Rosendale, do	2 75	@	3 50
do Portland do	4 75	@	5 50
Plaster, Golden Gate Mills	3 00	@	3 25
Land Plaster, ₱ ton	10 00	@	12 50

MISCELLANEOUS.

Pulu	—	@	7½

NAILS.

Assorted size, keg	3 25	@	4 00

OILS.

Pacific Glne Co Neat F't No. 1	1 00	@	90
Pure	—	@	—
Castor Oil, No. 1	1 25	@	—
Baker's A A	1 25	@	1 30
Olive Plagniol	5 25	@	5 50
do Possel	4 45	@	4 50
Palm lb	9	@	—
Linseed, raw	—	@	75
do boiled	—	@	80
Cocoannt	—	@	80
China nut in cs	—	@	70
Sperm	1 60	@	1 65
Coast Whales	50	@	55
Polar, refined	62½	@	65
Lard	1 10	@	1 15
Oleophine	—	@	44
Devoe's Bril't	44	@	45
Nonpsriel	50	@	—
Enroka	32½	@	33
Barrel kerosene	32½	@	—
Downer Kerose'o	45	@	—
Elaine	48	@	50

PAINTS.

Pure White Lead	9¾	@	10¼
Whiting	—	@	1¾
Putty	4	@	5
Chalk	—	@	1½
Paris White	—	@	2½
Ochre	—	@	3½
Venetian Red	—	@	3½
Averill Chemical Paint, per gal. White & tints	2 00	@	2 40
Green, Blue & Ch Yellow	3 00	@	3 50
Light Red	3 00	@	3 50
Metallic Roof	1 30	@	1 60

RICE.

China No. 1	5¾	@	6
Hawaiian ₱ lb	7	@	—
Carolina ₱ lb	10	@	—

SALT.

Cal. Bay, per ton	10 00	@	14 00
do Common	5 00	@	7 00
Carmen Island	12 00	@	15 00
Liverpool fine	—	@	20 00

SOAP.

Castile ₱ lb	10	@	10½
Common brands	4½	@	6
Fancy do	7	@	8

CANDLES.

Grant's	16	@	16½
Mitchell's	18	@	20

SPICES.

Cloves ₱ lb	45	@	47½
Cassia	23½	@	26½
Citron	28	@	30
Nutmegs	95	@	97½
Whole Pepper	14¾	@	15½
Pimento	16	@	17½
Gr'nd Allsp'd dz	—	@	1 12
do Cassia do	—	@	1 50
do Cloves do	—	@	1 50
do Mustard do	—	@	1 50
do Ginger do	—	@	1 00
do Pepper do	—	@	1 00
do Mace do	—	@	2 00
Bowen's Pure Ground ₱ lb	—	@	50

SUGAR, ETC.

Cal. Cube per lb	—	@	12¾
Circle A crushed	—	@	12¾
Powdered	—	@	13
Fine crushed	—	@	12¾
Granulated	—	@	12¼
Golden C	—	@	10
Hawaiian	10	@	11
Cal. Syrup in kgs	—	@	72½
Hawaiian Molasses	25	@	27½

TEA.

Oolong, Canton, lb	19	@	25
do Amoy	28	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	40
do Pingsuey	45	@	80
do Moyune	60	@	1 00
Gnnpo'der, Cant	75	@	1 00
do Pingsuey	50	@	90
do Moyune	65	@	1 25
Yng Hy, Canton	28	@	40
do Pingsuey	40	@	70
do Moyune	65	@	85
Japan, ½ chests, bulk	30	@	75
Japan, lacquered bxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb bxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ & 1 lb paper	30	@	55

TURPENTINE.

Eastern	52½	@	55

LEATHER.

[WHOLESALE.]

Wednesday, M., Dec. 20,

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

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A. MAILLIARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petalnma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, San Bruno, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $100.

P. STANTON, Sacramento, Cal., breeder of choice Jersey Cattle. Bulls, Cows and Calves for sale.

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L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle, Essex and Berk-hire Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown; Sheep, Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

LANDRUM & RODGERS, Watsonville, Cal., importers and breeders of Pure Breed Angora Goats.

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M. FALLON, Cor. Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Eggs for Hatching from Pure Bred Fowls.

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MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas and B. B. Red Game Bantams. Also Eggs.

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ALBERT E. BURBANK, importer and breeder of Fancy Fowls, Pigeons, Rabbits, Dogs, etc. Also, Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

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CALVERT'S CARBOLIC

SHEEP WASH,

$2 Per Gallon.

After dipping the Sheep, is useful for Preserving Wet Hides, Destroying the Vine Pest, and for Disinfecting Purposes, Etc.

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In consequence of spurious imitations of

LEA AND PERRINS' SAUCE,

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Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper. Wholesale and for Export by the Proprietors, Worcester; Crosse and Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

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Something New!
Something Beautiful!
Something to Keep!
Something to send East to your friends!
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Eighteen Photo-lithographic Views of the Pacific Coast—Golden Gate, San Francisco, Mission San Juan Capistrano, Cliff House and Seal Rocks, Sutter's Mill, Quartz Mill and Mining, Hydraulic Mining, Yosemite Fall, Big Trees, Vernal Fall, Geyser Canyon, Donner Lake, Uncle Sam, from Lakeport, Mount Diablo, from Benicia, Mount Shasta, Fort Point, S. F., University at Berkeley, State Capitol; all enclosed, in an oroide box, with the design of the U. S. $20 gold piece stamped thereon. Sent postpaid for 30 cents; four for a dollar. Send postage stamps, P. O. order, currency, gold or silver. Address,

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CALIFORNIA FARMERS' MUTUAL

Fire Insurance Association,

No. 38 California Street,

(GRANGERS' BUILDING,)

SAN FRANCISCO, CAL

Capital..... $200,000 00
Assets, October 15, 1876..... 268,716 52

MUTUAL PLAN.

	AMOUNT.	PREMIUMS.
Risks written to Oct. 1, '76...	$5,181 591.00	$114,445.57
Less Amount Canceled.....	300 644.00	6,297 50
Amount in force, Oct. 1, '76..	$4,880,947.00	$108,148.07
Losses paid.....	$7,251.00	

CASH PLAN.

	AMOUNT.	PREMIUMS.
Risks written to Oct. 1, '76...	$2,585,914.19	$51 606 96
Less Canceled and Expired...	976,908.00	$19,538.16
Amount in force, Oct. 1, '76..	$1,669,006.19	$32,068.80
Losses paid.....	$10,153.71	

OFFICERS.

J. D. BLANCHAR.....PRESIDENT
I. G. GARDNER.....VICE-PRESIDENT
G. P. KELLOGG.....TREASURER
A. W. THOMPSON.....ATTORNEY
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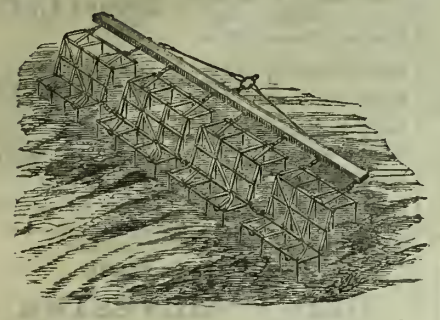
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This Harrow was Awarded the First Premium at the California State Fair in 1875.

The undersigned, having purchased the patent right of this Harrow for California, are now manufacturing them in Roseville, Placer County, and would call the attention of Farmers to the superior merits of this Harrow over all others now in use.

As its name indicates, it is made in sections of about three feet in width, each section having four bars, in which the teeth are inserted, and by connecting the sections with links, the Harrow is formed.

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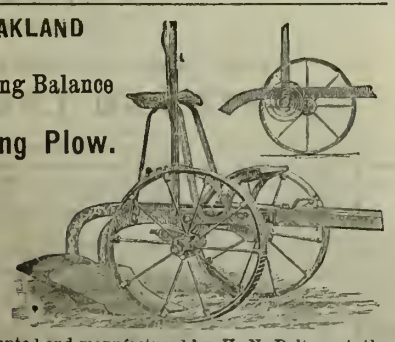


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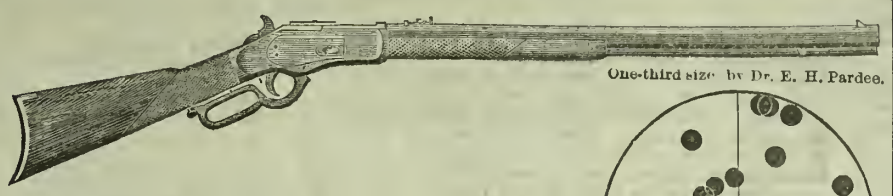
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One-third size by Dr. E. H. Pardee.



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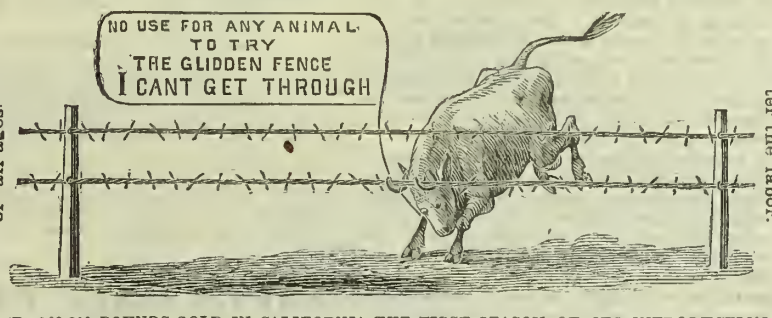
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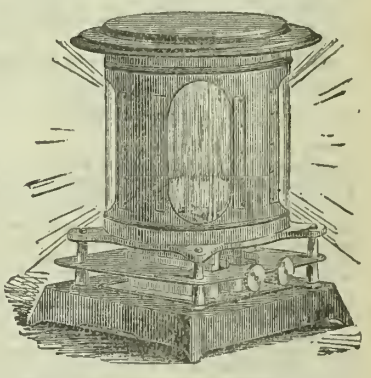
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PACIFIC RURAL PRESS

Volume XII.] SAN FRANCISCO, SATURDAY, DECEMBER 30, 1876. [Number 27.

Index of Vol. XII.

The close of a volume of our newspaper is a point of interest both to editors and readers. It marks the end of a period of newspaper life. As the index is prepared it stands as a review of the months through which the periodical has passed, and indicates the channels in which the types have had their course. It is a matter of some surprise and much gratification to us to be reminded by the solid columns of the index of the myriad of topics which we have presented during the last half year. They cover all the branches of home and farm life, and are so varied in their subjects and method that we can be sure that they have touched the many minds which are embraced in our wide circle of readers. The index reminds the reader of the fact that a volume of the RURAL PRESS is a treasury of much useful information, apt suggestions and earnest thoughts of life and purpose. This cannot well be otherwise, for many are the pens which have flown in our service during the past six months. As the editor looks over the index and notes the subjects, thoughts of the writers in their widely scattered homes come to mind, and he is prone to thank them again and again for the hearty assistance which they have given in the work of the volume.

To the reader the sight of the index will be very grateful. To the very many subscribers who save their papers carefully, the index comes as an aid to reference and they may now close and bind their files confident that they possess the key which will open to them desirable things. Although the index marks the close of a volume it is no indication of cessation from work and interest. For already the labor upon No. 1, Vol. XIII. is in rapid progress and if the new comer does not please our friends better than the one to which we now say good bye, it will not be because we have not tried to make it excel.

A Green Cucumber House.

Last spring the early cucumbers were almost worth their weight in silver in this market. It was surprising to many how a vegetable which can show only four parts in one hundred of nutritious food material could so rank in people's minds as to bring four dollars per dozen, while rich and wholesome potatoes were sold for the freight charges. But such is the taste of the consumer, and the farmer, like every wise producer, makes money by pushing a product so that it shall be the very earliest of all its train. The efforts to supply this fancy demand are now considerable. One grower in Yolo county, who has a cucumber greenhouse 320 feet long by 13 feet wide, is now discussing the advantage of putting in steam pipes to give him the necessary bottom heat by a circulation of hot water. He writes to the *Gardener's Monthly* asking advice on the project as follows: "I have been in the habit heretofore of using stable manure for bottom heat, but find I am so much troubled with the green fly (or lice as we call them) on the vines, that it is impossible to grow them with success. I think the lice originate from the manure. Would it not be better to heat with hot water? How would it do to have the boiler in the center of the house, and have the water flow each way and return? I have plenty of one-inch pipe—would that be large enough? The thermometer never indicates lower than 26 degrees." Mr. Meehan replies as follows: "It is hardly probable that the lice are especially favored by the stable manure. Hundreds raise cucumbers by stable manure without this experience. If we had an abundance of stable manure, we should be loth to change it. No heat is so grateful to the cucumber as that from this source. If, however, you will change, hot water will be best for so long a range, and the boiler be best in the position you suggest. The objections to one-inch pipe are that it is very liable to be obstructed—and water circulates with more difficulty on account of the greater comparative friction, and cools quicker. It takes more fire to keep up a regular temperature in a house with small pipe, than one with pipe of three or four inches diameter."

Heath's Cling Peach.

We give on this page an engraving of a peach upon which Downing bestows his finest epithets, and they are epithets which every one will approve who has had his chin flooded with the luscious juice with which this fruit rewards the biter. The engraving shows the outline well, but memory must supply the creamy whiteness of the skin and the generous curves of the contour. We cannot do the fruit better justice than does Downing in the following description:

The Heath is the most superb and most delicious of all late clingstones. It seldom ripens in New England, but here and to the southward, it is one of the most valuable kinds, of very large size, and the very finest flavor.



HEATH'S CLINGSTONE PEACH.

Coxe informs us that this is a seedling produced in Maryland from a stone brought by Mr. Daniel Heath, from the Mediterranean; and it is frequently still propagated from the stone, without variation. The tree is vigorous, long-lived, and moderately productive; with the *shortening-in* mode of pruning the fruit is always large and fine, otherwise often poor. This tree is well deserving of a place on the espalier rail, or wall, at the North. Leaves nearly smooth on the edges, with reniform glands. Flowers small.

Fruit very large, oblong, narrowing to both ends, and terminating at the top with a large swollen point; the suture distinct on one side. Skin downy, cream-colored white, with a faint blush or tinge of red in the sun, or a brownish cheek. Flesh greenish white, very tender, and melting, exceedingly juicy, with the richest, highest and most luscious flavor, surpassed by no other variety. It adheres very closely to the stone. It ripens in the Eastern States in October, and frequently keeps for a month after being gathered.

PASSIFLORA EDULIS.—We have been considerably interested in a specimen of the fruit of the passion flower, which has been brought us by Mr. G. P. Rixford, of this city. The fruit has grown in Mr. R.'s garden on Bush street. The plant is a native of Central America and West Indies. Mr. Rixford obtained seed from Australia. In Mexico the plant is called Granadito de China, the "Chinese pomegranate." It belongs to the *Granadilla* family, of which there are many members. The finest fruit is grown on the plant known as *Passiflora quadrangularis*, but Mr. Rixford says this variety is too tender for this climate. The flower and leaf of the *Passiflora edulis* are very similar to the *Passiflora cerulea*"—the "common passion flower"—the fruit of which is not eatable. The point of interest in this connection is that the plant ripened its fruit here in the city and fruited when but two years from the seed. The plant is located out of the frost, being trained up the south side of a building. The fruit is round and about the size of an egg. The color of the exterior is a purplish green, and the rind is about one-quarter of an inch thick. The interior appearance is very like a pomegranate, and the pulp is pleasantly acid with something of the orange flavor.

The Jujube.

We know of a ranch in Sonoma county where the jujube tree has borne its first fruit this year, and shows vigorous growth. It was imported from France by the present owner. Whether there be other growers of this tree in this State we are not now aware. If such there be we should be pleased to have their experience on the points of its growth here. We well remember the "jujube paste" of our school days, and are prone to speak in its favor to our young readers. As the tree has been introduced and has flourished, the following note, which we find in the Florida *Semi-Tropical*, will be read with interest:

The jujube tree is worthy the attention of all lovers of fancy trees and shrubs. It is both useful and ornamental, and cannot be surpassed for beauty. The only objection is that it is deciduous. From the first of April until late in November, or until frost, it is covered with a dense, deep green foliage, interspersed with its tiny ornamental fruit, in all stages of growth. The fruit is speckled and reddish when ripe. The leaves and fruit are borne on a small, wire-like stem, from six to ten inches long, which grows downwards, and presents a beautiful weeping appearance. It grows to the hight of from 15 to 20 feet. I have a tree whose trunk measures five feet in diameter with four limbs, the shortest 14 feet and the tallest 17 feet high. It is seven years old, has borne fruit three years, the product largely increasing each year. The tree is a native of Syria, but has been cultivated for many years in Spain, Italy and France for its fruit, which, manufactured into paste, better known as chewing gum, relished by school girls and annoying to teachers. When the fruit is ripe it closely resembles the cranberry in size and shape. It has a thin, hard skin, flesh yellow, and tastes very much like the haw. It has other good qualities aside from its beauty and fruit, and as Florida is favored with so much fruit, she can afford to dispense with it on this merit and cultivate it for other uses. If you want a fancy walking cane and curiosity that will surpass for beauty and novelty the oak, bamboo or orange, take a limb of one year's growth. The jujube supplies Florida's need for a good hedge plant. Plant five feet apart around your chicken lot or garden and in three to five years neither man nor beast will trouble you. Underneath this attractive fruit and foliage is deceit in the shape of thorns, and dangerous to play with. It can be cultivated wherever the plum will grow. It is not troubled by insects, and neither heat nor cold injures it, and it stands drouth well. It makes a rapid growth.

A WAGON ROAD OVER THE SIERRAS.—Congressman Luttrell has introduced, by request, in the House of Representatives, a bill granting the right of way for a wagon road across the Sierra Nevada mountains, below the snow line, commencing at or near the town of Oroville, in the county of Butte, State of California; thence up the north fork of Feather river, to the east branch of said north fork; thence up said east branch to American valley, in Plumas county, in said State; thence by the most direct and practicable route to Mohawk valley, on the middle fork of Feather river, in said Plumas county; and thence up said middle fork of Feather river to Sierra valley. The length of the road from Oroville to the American valley is about 65 miles.

CARROTS.—We lately made note of an eight-pound carrot. Now Alfred Wright, of 220 Third street, brings us a carrot from the Bay Island farm of Henry Bowman, at Alameda, which is 20 inches long, 20 inches in circumference and weighs 15 pounds. Mr. Bowman also grew potatoes weighing 3¼ pounds; onions, 2½ pounds. These were not single specimens, but the number of these monsters was great.

A GOOD WORD FOR THE RURAL PRESS.—We never open a number of the RURAL PRESS without thinking what an admirable farmers' paper it is.—*Santa Barbara Press, Dec. 16th.*

CORRESPONDENCE.

"Santa Cruz Water Works."

EDITORS PRESS:—The new water works at Santa Cruz is one of the finest and most valuable improvements connected with its past rapid growth, and will be largely promotive of the future health and comfort of this little seaside city. These works have been built by a corporate company, whose president is H. K. Moore, Esq., of San Francisco, where is also its business location. The resident superintendent and manager of the works is E. R Morgan, Esq., to whose business tact and constructive skill the company is largely indebted for its success in the completion and proper working of this great enterprise. In attempting to report these works for the information of your readers, your correspondent would claim no especial reportorial acumen by pretending the acquisition of an item either unknown to common observation, or unheralded to the world. For these works, sitting upon the high hillside like a large fortification, above and overlooking the town and adjacent country, are the most conspicuous objects seen in approaching the city from any direction; and they have been duly noticed, from time to time, by the local journals in their progress and completion. But it is to give a larger play to our warm individual interest in whatever enhances the interests of our former home, and to bear testimony to the public value of the conception, to the wisdom of the investment of capital employed, and to the skill displayed in the construction of these works, that we attempt these notes.

Calling at the office of the company on Pacific avenue, near the postoffice, we were invited to take a seat in the buggy of the superintendent, and were taken to the

Two Reservoirs

On the hill, at the point where the bluffs, which form the back wall of the first terrace of the upper town, bend abruptly to the left and form the western boundary of the San Lorenzo valley. Then extending northward a mile or more, these bluffs rise up into the mountains which run the whole length of the Lorenzo river. The location of these reservoirs not only secures the proper elevation to carry the water with a heavy pressure to all parts of the town and the country for miles around, but also affords a magnificent view of the entire region in every direction.

The company have secured four acres of ground at this point, beginning on High street with a frontage of 150 feet or more, and running back in a northerly direction to near the top of the bluff at its upper corner. The surface is covered with soil, and under it a chalk rock formation of unknown depth. The ground for about half its length from the street has but a slight declination south towards the street and east towards the river. From this middle point the excavations begin, which divide the other portion into two ascending terraces. The lower boundaries of these terraces are retaining walls made of the stone taken from the excavated hill. The lines of these walls are not straight, but slightly curved, so as to pass around the hill and at the same time give a graceful contour to the ornamentation of the grounds, which it is proposed so to beautify that they will afford the most delightful place of public resort to be found near the city. The lower reservoir is located at the lower end of the terrace, nearly midway of the grounds, and is a parallelogram 60x80 feet, sunk into the rocky foundation 11 or more feet, its almost perpendicular walls water cemented and holding 360,000 gallons of water. It is enclosed with a high board wall, neatly whitewashed, and leaves a walk four feet wide all around the reservoir on its inside. The upper and highest reservoir is at the highest and extreme point of the bluff, at the upper end of the terrace, and has a view of the San Lorenzo valley northward. The view then swinging to the right, through all intermediate points of the circle, looks the whole length of the peninsula formed by the river and ocean, and far out upon the latter, to the extreme southwest. This reservoir, like the other, is sunk into the solid rock; but, unlike the other, is an elliptical bowl in shape. It is likewise cemented, enclosed and holds about 150,000 gallons. The enclosures have windows in their sides to afford an unobstructed view of their entire interiors to an interested and curious public. Both reservoirs are well stocked with fish to keep pure the water, and will afford rare sport to the privileged angler.

The lower reservoir is 90 feet and the higher 150 feet above the river, where the

Steam Pumps,

Enticing the unwary waters into their monstrous throats, force them along and up their dark tubes to these lofty receptacles, 4,700 feet away.

Automatic Arrangements.

Both of these reservoirs are furnished with a metallic float, which is so ingeniously contrived that it automatically by two levers (one for each reservoir,) surmounted at their outer ends by a broad, square, white tin, intended to be seen from a distance, and so attached to an elevated pole fixed in the wall of the highest reservoir that they fall outwardly, through all the intermediate points of the quadrant, from a perpendicular to a level position, indicates the exact depth of the water in each reservoir. By this simple mechanical contrivance a telegraph is constructed which informs the engineer near a mile away when his pumps need to begin or cease their motion. But this is not all that this float does, for when the lower reservoir is filled (and this reservoir is always filled before the upper one) the float reaches and loosens a spring which by its recoil opens a valve situated in a small pipe coming from the upper reservoir and terminating in a little house located over the spot where the feeding main branches, one leading to the lower and the other to the upper reservoir. This valve opens over a little water-wheel, which by its connection with proper machinery, closes the valve of the lower branch main and opens the valve of the upper branch main, thus stopping the water flowing into the lower and forcing it an additional hight of 60 feet into the upper reservoir. When this reservoir in turn is full, its own float by the same contrivance reverses all these movements, closes the upper pipe and again opens the lower. Thus, by this automatic telegraph and valve-controlling arrangement, the reservoirs are regulated, never lacking water, and never overflowing.

The Engine House

And pumps are located on the San Lorenzo river, about a mile above Santa Cruz. The boiler-house is 20x30 feet, contains the largest boiler in the county, is very complete, and is furnished with patent safety valve and whistle. The pump room is 18x28 feet, two stories; the upper story occupied by engineer and family. The buildings are well built, hard finished and tastefully painted, and, notwithstanding the throbbing of its huge pumps, all has an air of quiet neatness. The pumps are Hooker's patent, manufactured and put in place by W. T. Garratt, of San Francisco. They are two in number, and are a marvel of compact efficiency. The larger one is a strong iron box three feet ten inches long, one foot eight inches in thickness and two feet deep, and contains within its recess 20 valves and other machinery, besides 35,000 gallons of water per hour, which, passing through it, it forces along the eight inch feeding main with a pressure of over 50 pounds to the inch. The engine which drives this pump is as simple and concealed in machinery as the pump itself; for all that can be seen is a cylinder 18x24 inches at one end of the pump box and two feet from it, with a piston traversing between, with both ends hid within the cylinder and the pump box respectively—the steam power required to produce this simple motion rising to the pressure of 75 to 80 pounds to the square inch. This simple apparatus; with a few steam pipes and water pipes leading to and from the pump, is all that can be seen of that mighty force which propels 35,000 gallons of water one mile (nearly) and into the air, 150 feet every hour! There is a smaller pump like the larger which can be worked, and the combined capacity reaches 50,000 gallons per hour. The water supply is drawn from an immense walled well, just outside the buildings, entirely protected from possible overflow of the river. This well is sunk several feet below the river bed and 40 feet at least from it. Its water sinks through immense sand filters laid in the bottom of the river, and passes into it pure and limpid by the force of gravity alone.

The feed pipes, as well as all the mains through the city, are the

"Wyckoff Wooden Pipe,"

And will bear the pressure of 90 pounds to the square inch. This supply pipe and the mains into the lower town are eight inches in the clear. The mains into the upper town are six inches. Branch pipes from four to six inches, and short runs are three inches. The mains, with all their branches now laid, reach the distance of 8¼ miles. The company has made up to the present 200 connections and expect to make during the coming year 400 more. The revenue already derived from this source amounts to one per cent. on the investment. Pretty well for the first year's work. The company will soon run their mains along Mission street one and a half miles to the "Natural Bridge," and another across the San Lorenzo and on the Branciforte terrace, giving to all East Santa Cruz an abundant supply of soft water.

We will close this already lengthy article with the statement of two points which have been attained in the construction of these works in the direction of economy, both in outlay of money and expenditure of mechanical forces, illustrative of wise management and constructive skill by the resident superintendent. The first is the attainment of an equal pressure throughout the length of the mains in the town by means of an uniform and direct grade from the top to lowest level in the pipe which connects the mains with the reservoir. This gives the full pressure of the altitude of the reservoir (which is from 90 to 80 feet in every part of the city), with but little loss by friction. The other is, by an ingenious device, the transformation of the feed pipe into a returning supply main. This is accomplished by a valve in a pipe connecting the feed pipe with the main descending into the town. When the pumps are working, the pressure of the water flowing through the feed pipe into the reservoir closes this valve, but when they cease, this valve opens and the water flows back in the feed pipe, equally as in the town mains, in proportion to the consumption of its water. C. N. W.

Watsonville, December 18th, 1876.

English Agricultural Implements.

EDITORS PRESS:—A copy of your paper of November 4th has been sent to us, in which we find an illustration of our steam plowing and cultivating engines, and we have to thank you for this favorable notice of our inventions.

In reference to your remarks "we think Messrs. Howard would do well to send out a set of their machinery to California in order that the adaptability of the implements to our use could be determined by experiment," we would observe that manufacturers of machinery have the world before them, and they naturally turn their attention to those countries where they are not hampered by prohibitory or protective duties.

In the case of the United States, the English manufacturers of agricultural machinery, at a great meeting held in London, came to a decision not to exhibit their machinery at the Centennial exhibition on the ground that international exhibitions and prohibitory duties were not in harmony.

English farmers and English manufacturers enjoy the advantage of having brought under their notice all the best American inventions, inasmuch as there are no duties levied upon American machinery in England. The advantages to the British farmer are more indirect than direct, for although he has purchased a good deal of American harvesting machinery, his wants are mainly supplied by the English makers, upon whom the American competition has had a very bracing influence. What we saw of the agricultural machinery at Philadelphia leads us to the conclusion that a similar bracing influence in much of the farm machinery is not a little needed on your side.

When English makers on your side have "a fair field and no favor," as American makers have on this, there will be no lack of enterprise in bringing the best English implements and machines before the farmers of the United States. In conclusion, we can assure you that there is not an English maker of any note who would wish to exclude American machinery from this country. Its introduction here has been a signal advantage to the English makers, an advantage far outweighing the trade competition which in some classes of machinery has resulted. JAMES & FRED. HOWARD.

Britannia Iron Works, Bedford, England, Nov. 27th, 1876.

[Yes. It is true, we mean to do our own manufacturing. But at present we are not prepared to make steam plows, and if the desirability of the implements were demonstrated under our conditions, we imagine that Messrs. Howard may do a good business until our manufacturers took the field. The matter of the tariff, is of course, an impediment, but it would not deter our farmers from purchasing if they were pleased with the goods. The trouble with us is that we have too little respect for tariffs and freights, and consequently import hundreds of things which we should produce or manufacture. We know California farmers who are now using cultivators and pulping machines imported from England, and why cannot Messrs. Howard sell us a few plows, if we are content to pay the tariff in the belief that the sacrifice is for the sake of ultimately developing our manufacturing industries.—EDS. PRESS.]

Notes from Western New York.

EDITORS PRESS:—While no doubt you are sowing wheat or planting potatoes, we are having what Western people call a "blizzard," wind blowing a gale from the northwest; air full of snow; mercury making ten at noon, and no doubt will be as much below zero to-morrow morning, but we have no mud, good wheeling or sleighing and we call it good, wholesome weather.

We have had a fine growing season here; fair crops of grain and grass, and a large crop of fruit, which in these hard times almost glut our markets. Apples selling for only one dollar per barrel, package included. This makes fruit men cry hard times for the first time in years—as the fruit crop of Western New York is almost a sure thing and prices have heretofore been satisfactory. More apples have been dried canned, and made into jelly and cider than ever before, and yet almost every farmer has fed to cattle and hogs hundreds of bushels of common apples.

Times are called *hard* here and yet, as we compare our boyhood days, when we wore homespun clothes, went bare-foot till snow fell, and lived on what we raised, we seem to have *good times*. We think people have not learned the lessons of economy (that is the office of hard times to teach us) as fully as they might, and we fancy the times will not change very rapidly until we learn to live a little *within* our income every year.

Prices of grain are very fair, while beef, pork, mutton, butter, cheese, eggs, etc., bring good prices and sell readily for cash at every store in the land. Stock of all kinds keeps up pretty nearly to war prices *for gold*, and the farmers, as a body feel the depression as little as any class of citizens. With the compliments of the season to our California friends we remain,

Yours, etc., J. B. J.

Rochester, N. Y., Dec. 9, 1876.

POULTRY YARD.

M. EYRE, JR., Napa, Cal., Corresponding Editor of this Department.

Packing and Shipping Eggs.

Although the greater part of the egg packing and shipping in this State is done in the so-called "egg cases," it may interest some of our readers to know how a writer for the *Country Gentleman* succeeded without these contrivances. He says: For a number of years the writer has furnished private city families with eggs for home consumption. At first it was difficult to coax expressmen to convey them, unless packed in tight boxes, and then in small packages, with charges prepaid in every instance. They were handled roughly. To-day they are shipped in baskets packed in cut straw, and it is seldom that any breakage occurs. There is quite an apprenticeship to serve in the packing of eggs in order to convey them safely. Good fine rye straw, cut very short, and all the heads discarded, is best. Each egg in every package must be packed solid, so that it cannot move from its place. The writer packs on the large end. The basket should be previously lined with paper all around, certainly two thicknesses, and well pressed against the sides and in the corners, and three or four double on the top after packing. To be sure of the number, (if a specified one is to be packed,) count the eggs beforehand, and lay the dozens out, each one separately, to be sure of no mistake, and calculate just how many you must pack in each layer, leaving room for a thick layer of straw on the bottom and top. Press the large ends of the eggs down firmly in the bottom bed of straw, and after setting up all that the layer will contain comfortably (the eggs must not touch other), shake down moderately, that the straw may settle evenly among them, after which put on more straw, until the eggs are covered out of sight, and gently press and smooth with the hand until all is level, and when you can, commence with the second layer, taking heed to keep the corners well filled.

FLORICULTURE.

Something About Oleanders.

EDITORS PRESS:—Among semi-aquatic plants there are none in cultivation more interesting and easy to manage and prolific in flower than the red and white oleanders of our gardens. These plants are natives of Brazil, the shores of the Mediterranean sea and Persia, and their home is generally on the banks of streams and low lands subject to overflow.

Travelers tell us of their nativity on the banks of the river Jordan. During the rainy season the plants are nearly submerged. This is their season of bloom, and during the dry they are high and dry away from moisture, which is their time of rest. This gives us a guide to their cultivation and we find that, notwithstanding they grow and flower in moderately moist soil, to have them in perfection they should be most plentifully supplied with water.

The colored sorts, double red and yellow, are the most beautiful and are highly prized for their delicious fragrance. A large bush with its hundreds of expanded florets is not only a beautiful sight, but their fragrance equally as enchanting. The whites are odorless, yet the double white, of recent introduction, promises to become a favorite from its novelty when it becomes more plentiful.

The Propagation of the Oleander

Is very simple and we grow them in large quantities as easily as a petunia or a fuchsia, and in a similar manner. A common practice with the ladies is to cut off a long limb a foot or more, flower buds all on, insert it in a bottle of water and hang it out in the sun to root. This is very unsatisfactory and I will give a better method. Take a hard slip from the extremity of a limb (don't cut it off with the scissors nor twist it off), of not more than three inches in length. Remove the lower leaves with a sharp knife, and lay it away in the shade for three or four days. This is done to give the wound on the end of the cutting time to partially heal, or dry up, and it prevents decay in rooting. Now take a tea saucer of coarse sand and wet it so that it will be sloppy; insert the cuttings therein, and place them in the hottest sunny place procurable and they should be well rooted in about two weeks. Always remember to keep the sand very wet.

The soil for oleanders should be very rich and open to keep them in health.

Many of our lady patrons have complained very bitterly about the

Scale Bug.

We have no difficulty whatever, and the secret I will communicate very privately, and please don't tell any one else. Most of you know what "rubbing suds" is. Well, on washday save this suds and apply very freely all over the bushes. Get it on the under sides of the leaves and in the forks of the branches. Apply freely and as often as washday comes, and you will be well rewarded for your trouble. This suds will remove scale in any form—orange trees not excepted.

Pelargoniums, fuchsias, jessamines, and a great many varieties of flowering plants are subject to this scale pest; but frequent washes of suds will remove the most troublesome species I have ever met with, and those who have orange or lemon trees, whether infected or not, should apply these rubbing suds as a preventative. It has never failed with me, and there is no reason why it should fail with any of my lady patrons. Any others need not expect success. I shall continue these notes on flowers in the columns of the RURAL, and suggestions from the ladies will be thankfully received.

W. A. T. STRATTON.

Petaluma, Dec. 16th, 1876.

THE DAIRY.

Length of the Milking Season.

There are various opinions upon this subject among dairymen, as well as upon almost every other point of practice; but it is really so vital a question, connected with the profit of the dairy, that there should not be two opinions upon it. A little careful study of this question, practically, ought to settle it within very narrow limits. The cow, in a state of nature, had a short period of lactation—only from three to six months—the only requirement being food for her calf. When this object was attained, the secretion of milk ceased. But when her milk began to be used for human food, efforts were made to prolong the period of lactation and increase its flow. The model dairy cow, as we know her, is almost an artificial production—a monument of skill in breeding and feeding. Instead of secreting a few quarts of milk per day for three months, as did her long-ago progenitors, she yields from 4,000 to 6,000 quarts in a period of 44 weeks. In a state of nature, such a production of milk was impossible, even though the cow had had organs of sufficient capacity, for her food and surroundings were entirely inadequate. The extraordinary development of the milk secretions in the cow is entirely the work of the breeder and feeder. If then this work of developing the milch cow is a good one, and we are to congratulate ourselves upon its accomplishment, shall we not adopt, in the management of the cow, the same system which has been successful in developing her milk production?

It will be found that every improver has striven to extend the period of lactation, this being absolutely necessary to an increased aggregate yield of milk for the year. A cow that has given a good yield at the flush, has been encouraged by the best food and care to continue this yield as long as possible. This effort has, no doubt, been carried to an extreme in many cases, for cows should not be permitted to give milk through the year, as they sometimes do; but it is seldom that a cow having a short period of seven to eight months is profitable, however large her yield may be considered in the flush. We have had cows giving 40 pounds per day at the highest, and still not reaching 5,000 pounds in a year, for the want of *staying* qualities, as the horsemen say; whilst other cows, never giving over 30 pounds per day, have reached 5,500 and 6,000 pounds in 10 months. From much experience with many cows, tested individually, we have come to consider a short period as fatal to a large annual yield in a cow. We do not know of a single large annual yield from a cow that did not give milk 10 months. Great yields have come from all the milking breeds and from those of all common stock; but in every instance, so far as we have been able to learn, the cow has been a *long* milker, as well as a *deep* milker.

If these facts are acknowledged, what real ground can there be for two opinions upon this question of the desirable length of the milking season, except of giving a reasonable time for recuperation before the next calf is dropped? Facts show that, practically, six weeks to two months is ample time, under proper feeding and care, for the cow to recover her energies and be in a condition for the next lactation. We regard this as a most important question, to be understood by every dairyman; for, when he understands its importance, he will test each cow's staying quality, and, after finding her deficient in that and in the aggregate quantity of milk, he will discard her. If a cow tapers off in milking at seven months, under good feeding and care, there is no use in wasting further feed upon her. Let her be prepared to go to the butcher. You do not want to keep her heifer calves, unless the dam of the sire was remarkable for holding out, in which case the calf may take this quality from the sire, for this staying quality in a milker is hereditary. Yet you may increase it very much in many cases. We have found it advisable to milk the heifer with her first calf, at least 12 months, not allowing her to come in the second time in less than 18 months from the first calf. This helps to establish the milking habit. But all long and deep milking is based upon good feeding, which means a proper variety of food to supply all the cow's wants. If your pasture is short and scanty, you cannot expect the cow to hold out her milk without extra food.—*Live Stock Journal.*

BEES.

Does Old Comb Reduce the Size of the Bees?

For many years the opinion has been prevalent among apiculturists that the age of comb reduced the size of the bee, from the fact, as they state, that the cells in the old comb are becoming smaller every year, as every bee that is hatched in them leaves its silky cocoon adhering to the walls of the cell, thus diminishing its size, and, consequently, the size of the bee. Thus, bees reared in a hive where the comb is ten or 12 years old must necessarily be smaller than those reared in a hive where the comb is but one year old. The facts appear to us quite the reverse, and must so appear to any one, we think, who has kept bees any considerable length of time. We have examined bees reared in comb many years old, and, so far as our discriminating powers could be brought to bear, we could not discover any difference in the size of the bees from those reared in new comb. The cocoon or silky membrane left in the cell by the young bee, we think, is removed by the bees. Small bees are noticeable in all hives. These small, dwarf bees are reared in the short cells on the edge of the comb.

The idea is prevalent among many that all old comb should be removed from the hive and rendered into wax, thus requiring the bees to build new. We enter our protest against this, unless the comb is moldy, or in some other way damaged, so as to render it untenantable. The paltry sum paid for wax will not compensate for the change, when we consider that bees will store 20 or more pounds of honey while they are constructing one pound of comb. Unless comb is much molded the bees will cleanse it in a short time and occupy it. Some of the most learned and scientific apiculturists inform us that they have examined hives containing comb 42 years old, and found the bees as fine and as large as any that they had ever seen, and that during this period they had swarmed every year except one. We write this that beginners may not destroy comb on account of its age. In transferring, all comb should be saved that is possible. Small slats may be tacked across the frames and pieces of the comb slipped in between. When the bees stick them together the slats can be removed.—*N. Levering, in Los Angeles Herald.*

THE HORSE.

The Norman Horse.

We recently gave an illustration and some facts about the famous draft horses known as the Norman Percherons. As there is just now quite an interest in this breed of horses in this State (at least three importations of several herd each having been made during the last three weeks), we quote from advance sheets of the new Norman Stud Book an article on the horse written by J. H. Sanders, the author:

For several hundred years there has existed in the interior of France a race of horses famous for their useful qualities, and possessing a remarkable degree of uniformity in all their essential characteristics. These horses were called Percherons, from the fact that they were mainly bred and reared in the ancient province of La Perche, a district situated to the south and west of Paris, and embracing a considerable portion of the territory that is now covered by the modern departments of Orne, Eure et Loir, Loir et Cher and Sarthe.

The precise date when this race of horses assumed the distinctive features which entitle it to be classed as a fixed breed is not known, neither can all the various elements which enter into its composition be determined with any very great certainty. The French literature is especially barren of any definite accounts concerning the origin of any of the breeds of horses of France. No stud books of any kind have ever been kept, and no systematized attempt at recording the genealogies of any of their breeds was ever made. It is a well known historical fact, however, that the Norman war horses, as used by the armor-clad knights in the days when chivalry flourished, during the time of the Crusades, were famed for their stoutness as well as their activity; and that, in spite of the lack of paper pedigrees and stud books, "selection of the best" and "survival of the fittest" had given to this part of France, many centuries, ago a race of horses that was pre-eminently adapted to the wants of that country.

But the little of history that can be found touching this breed definitely points to an

Eastern Origin.

Some French authorities go as far back as the year 731, when France was invaded by the Saracens, 300,000 strong, under the command of the famous chief Abderame. The utter defeat and overthrow of this barbarian host by the French, under Charles Martel, on the plains between Poitiers and Tours, left the fine Arab and Barb steeds upon which many of the invaders were mounted in the hands of the victors, and these horses, crossed upon the large, strong native mares of that region, if they did not form the starting points for the breed which, since that time, has become so famous, undoubtedly had much to do with creating the foundation upon which it was ultimately built.

Another large infusion of the same Oriental blood took place upon the return of the Crusaders, who brought with them many of the finest of Arabian stallions, and these were also extensively used upon the already excellent stock of La Perche, and served to stamp upon them the marks of the Arab to a still greater degree than they already possessed. The infusion of fresh Arabian and Andalusian blood was kept up for many years, at irregular intervals; the Lord of Montdoubleaux, Geoffrey IV., Rotrou, count of Mallart, count of La Perche, Count Rodger, of Bellesmer, and many others of the nobility, have been distinguished for the importations made by them, and the interest which they took in the subject of breeding horses, and as late as about 1820 we find that two famous Arabian stallions, Godolphin and Gallipoli, both grey, were imported and extensively used under the direction of the government.

The region of La Perche was especially favorable, in all the elements of soil and climate, for producing horses of the highest excellence, and its inhabitants have long been noted for their attachment to this noble animal. Indeed, it is doubtful if, in his desert home, the Arabian horse ever found a master equally as affectionate or kind, as well acquainted with and as ready to supply all his wants, as he found in his new home among the people of La Perche. They were proud of their horses, and the utmost care was exercised by both government and the people, in the selection of sires and dams.

Another cause which exercised a powerful influence in the

Building Up of this Breed,

And in giving it adaptation to the necessities of the country in which it was reared, was the custom, which still prevails universally throughout France, of leaving all the male colts entire. None are ever gelded, and it is only after a young horse has proven that he possesses qualities which are especially desirable, that he is used in the stud. All the males being left entire, there is a much wider range for the selection of suitable sires than there would be if the custom of gelding a large majority of the young colts which prevails in most other countries, were followed.

It is from these sources alone—the large and constant infusion of Eastern blood upon the stock of La Perche, already distinguished for the endurance and stoutness of its horses, the natural adaptation of the soil and climate, and the care and attention paid by the government and a people who loved their horses and lived with them, for successive generations, selecting only the best for breeding purposes, that was formed, by gradual approaches, that excellent type which finally came to be known and recognized as the Percheron horse; and he who looks for a definite point in the equine history of France where they first came to be acknowledged as a distinct breed, will search in vain.

Aside from the history and traditions of the country, the Percheron horse himself furnishes unmistakable evidence, in his form, disposition, color, and general characteristics, that he is closely allied to the Arab. These characteristics have been modified somewhat, it is true, and the size has been greatly increased; but in the hands of the excellent horsemen of La Perche, and under the careful and fostering supervision of the government, which exercises a direct control over the selection of sires, he seems to have retained all that was good in his Oriental ancestors; and this, added to the greatly increased size which had been attained, made the horses of La Perche, many years ago, the wonder of the world for their

Specialty of Rapid Draft,

Their ability to move a heavy load at a rapid gait.

It was this acknowledged superiority of the Percheron horse in the diligences, postcoaches and omnibuses of France, that first caused the attention of the outside world to be directed toward them. It was not simply as draft or cart horses that they were distinguished; on the contrary, had they possessed no excellence beyond this, they would scarcely have attracted any attention; for other countries possessed horses that, for the purposes of heavy draft alone, were certainly their equals, if not their superiors; but it was in that happy combination of size and form, which gave them activity, quickness of motion, strength and endurance, that they were found to excel the horses of all other countries.

This typical horse, which gave name and fame to the Percheron blood fifty years ago, was from fifteen to sixteen hands high, and weighed from 1,200 to 1,400 pounds. In color, fully ninety per cent. of them were grey (many of them beautifully dappled, but growing white as they advanced in years), and the remainder were of various colors, the black preponderating. They were noted for their kindness and docility; and the certainty with which they transmitted their own qualities gave the Percheron horses a degree of uniformity, in all of their most important characteristics, that has scarcely ever been equaled by any other breed

Under these favorable circumstances they were bred and reared for successive generations, the government of France constantly exercising a careful supervision over the breeding studs that were established in the various parts of the district, occasionally trying some new cross, but carefully adhering to the original type, and rigidly rejecting all excepting the very best specimens for use in the stud. But with the introduction of railroads the use of the post-coach and diligence was practically abandoned, and as this was the specialty for which the Percherons we have described had been bred, so, with the new order of things, came a demand for horses of a larger type; greater weight, a heavier bone, and more substance were required, and since that time the improvements of the Percheron, in this direction, has especially engrossed the attention of the French breeder.

STOCK BREEDERS.

A Tribute to a Breeder.

The Oroville *Mercury* makes the following honorable mention of a California stock breeder, well-known among his compeers. It says: Six miles from Oroville, on the Chico road, is situated Cottonwood ranch, owned by Moses Wick. The ranch is far from being one of the best in the county for the production of small grain, or even for hay. Neither is it remarkable for its size. It contains but a few hundred acres of land, a part of which is quite poor, and would not be coveted by most farmers. And yet the owner of this ranch is a man worth thousands of dollars, and has an income that is increasing each year. Some years ago the owner came to the conclusion that it would cost just as much to keep a poor animal as it would a good one; we mean one of the inferior grade, as it would one of the best breed that could be bought. As year after year rolled by, it began to be noticed that Mr. Wick's stock of cattle and herd of horses were large, fine-looking, and always commanded the very best market price. If a party inquired for a good cow or ox or horse, he was at once told to go there and he would find just what he wanted. Some five years ago he visited Ohio and Kentucky and came back with two car-loads of the finest Durham cattle that were ever brought into this State; and from time to time since that he has added to his herd by purchase in the East and from the best grades to be found at the State fairs, every one of which he visits and takes along with him a few head of his best, and he always returns with a pocketful of premiums and diplomas. We need not say that his name and fame have gone throughout all the land, for this our readers already know. Last year we saw a yearling bull go past this office from the cars, just from the East, that cost him well up in the hundreds, and yet he thought he got him very reasonable, and no doubt he did. His horses are just as fine as his cattle. They are always wanted; always bringing a good price, and are the admiration of all. Last Saturday we saw him go past this office with a couple of little goats in his wagon; certainly they did not look as though they were much better than the common herd to our inexperienced eyes, and yet they cost him landed in Oroville just $308. He said they were cheap. We have learned to believe what he says regarding his stock. We have given the above facts in order that our readers might see and understand that it does not require a fine ranch in order to raise fine stock; neither does it require a large amount of capital to begin with. It does require some enterprise, some staying at home and attending closely to business. It will cost more to breed your cows to good animals than to inferior ones, and yet after two or three years you will receive an hundred fold on your investment. We do not believe that there is a ranch of its size in the county that pays half the rate of interest on the capital invested that Cottonwood ranch does. Perhaps Mr. Wick will not thank us for the liberty we have taken with his name and property, but our statements are correct, and made for the benefit of our readers.

Eastern Short Horn Sales in 1876.

That readers may have some data to determine the standing of Short Horns in the markets of America, we have condensed from our files the sales published in 1876, and find that in Illinois there were sold 1,151 head, for $395,005; in Kentucky, 1,011 head, for $373,830; in Iowa, 751 head, for $232,475; in Canada, 145 head, for $117,825; in Indiana, Ohio and Missouri, 220 head, for $61,395. In all, 3,278 head were sold at auction for $1,180,530, an average of more than $360 per head. We regret our inability to furnish a complete list of sales made during the present year, both at auction and privately; yet we can arrive at a fair conclusion by comparing the result of sales above with the reports of sales published by Cols. Judy and Kidd, for 1875. In them we find 3 324 animals were sold for $1,366,515, an average per head of $411. The average of $41 more per head last year than this is mainly attributable to the increased number of imported animals sold then, and also to the Rose of Sharons, bought mainly to cross the Atlantic. When we take into consideration the depressed state of finances, the great decline in beef cattle, in real estate, and all classes of quadrupeds, save blooded cattle, we are more than ever convinced that there is no business connected with stock raising in the West and Southwest that has yielded, or will continue to yield any more satisfactory returns than the rearing and breeding of Short Horns.—*Live Stock Journal.*

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is in Davis street, north-east corner of California.

Grange Directory.—A full list of Subordinate Granges, Masters and Secretaries, of California and Nevada, is published as often as once a quarter in this department. See issue of Sept. 23d for latest insertion

The Grange in England.

Editors Press:—One of the greatest needs among our farmers is intelligent co-operation and combination; but no class of men anywhere are so fond of isolation and independence; and yet farming pursuits offer a very favorable field to co-operative enterprise. Farmers here seem to possess none of the cohesive principle, no tendency whatever for, and even a strong antipathy to, unity and combination. It is with great difficulty that they can be induced to co-operate together for any given purpose, and when they do that, they carefully prevent the principle spreading to any other than the proposed object, and they make haste to disband as soon as it is convenient to do so. Less than any other body of men they apprehend the true significance of life; they do not comprehend that we human beings are necessarily dependent on each other, that we as individuals are simply and emphatically members of the great human family, and that the individual is subservient to the class and the class to the race. First of all you have to convince them of the benefit your project of co-operation will be to them individually; then they will join you, and having once put their hand to the plow they do not soon look back. The farmers of America are different; they are more go-ahead; they are less jealous of each other; they have never been cowed and dispirited by the tyranny of a landlord-class, possessing, as ours did some hundreds of years ago, unlimited power over their dependents, even to the length of selling them and killing them; they are not now, as ours are, to a great extent dependent on their landlords' good will for their prosperity in life and even for the security from confiscation of a portion of their capital. The English farmer labors under certain disabilities to which his American cousin is an entire stranger, disabilities which knock a good deal of the "vim" and enterprise out of him. He is very cautious where he trades, for he knows the ground about him is a good deal occupied with pitfalls of other people's making.

Now, an institution like the Grange would be of incalculable service to English agriculturists. If they were only united from one end of the land to another, and could act in unison, and could speak as with one voice, they might soon remove a good many, if not all, their grievances and wrongs. But they never attempt to organize for any such purpose, and if they organize at all for anything else, it is on a very limited scale. They are not accustomed to the *idea* of organization.

But now there is a strange spirit of inquiry and unrest manifesting itself throughout the land. Our farmers are beginning to understand and to admit that *something* in the way of combined action must take place amongst them, if they are not to be left utterly behind in the race of life. They see that other classes of men combine for mutual help, and they now are questioning themselves as to the benefit combination would be to them. Then again they get alarmed when they hear of the dastardly and traitorous abuses which have disgraced "trades-unionism," for instance; and they have a sort of undefined dread lest a combination among themselves should not also be made a tool in the hands of some unprincipled adventurers. This I take to be an utterly superfluous dread. No man could make use of a combination of farmers for his own nefarious ends. They would be down upon him in an instant if he made the attempt.

I hope to see the Grange take root and flourish in this country. As an Order it is certainly planted in England, for I am a Granger, though the only one in this country. This is a position whose singularity I shall be only too glad to relinquish as soon as I can get the Order to spread. It is now known to our farmers, but when Mr. J. W. A. Wright came over here, very few of them knew anything about it—not even that it existed. The seed is sown by your commissioner, in time it will start into life and grow and flourish. Mr. Wright labored under great difficulties in trying to induce our farmers to accept the Grange. They did not know what it was, and their minds were unaccustomed to the idea. But he has left a deep and lasting impression—one that will increase after a time.

It is glorious to think of the good that will ensue when your farmers are united to ours through so beneficent an Order as the Grange. And those who wish for the prosperity of the countries—England and America—will do well to promote and foster the growth of the Grange in England. J. P. Sheldon.

Sheen, Ashbourne, Derbyshire, England, November 13th, 1876.

Worthy Lecturer's Visits.

[The following communication concerning W. L. Pilkington's visit to Pescadero Grange was duly received but unaccountably mislaid. We regret exceedingly the mishap and haste to make amends.—Eds. Press.]

Editors Press:—Notwithstanding the want of rain and moisture in the natural Grange field with which to prepare the ground for seeding, and so insure during the coming season a bountiful harvest, we find that the farmers are doing all that possibly can be done to get in their crops in time and leave no work undone that will be necessary to their success. So also with the Grange Order. While there has been, and is yet, more or less apathy among the Subordinate Granges, so that the Grange work to many appears almost dead, yet when reached by the State Lecturer and the real Grange issues ventilated before them, there is no want of a genuine response and a new resolve to put in the plow and prepare the ground for the great work before us. I left Santa Cruz Friday morning, November 24th, by stage on the coast road for Pescadero, with the proprietor and driver on that route, Mr. Ingalls, who is not only a most gentlemanly and thoroughly posted man in his business, but just the man to make a trip of that kind most pleasant and agreeable. The whole route is exceedingly interesting to a stranger, so varied and striking are the changes of scenery and farm interest. When we arrived at Point New Year, fourteen miles from Pescadero, Bro. J. C. Steele was at his gate on the stage road to intercept me, and to entertain me till the morrow, when he, with fine roadsters and most comfortable family carriage would take me on to Pescadero to be in time for the Grange meeting at 1 P. M., Saturday the 25th inst., of which Grange, let me say here, Bro. Steele is the Master, and fortunate for Pescadero Grange this chair is so so ably and efficiently filled. I found Mr. Steele and his family most excellent company, and a real social Grange visit was afforded me—surrounded as he is with every comfort, facility, and complete dairy fixings to carry on as he does his large cheese-making establishment—which answers the whole question why the Steele Bros.' cheeses in the San Francisco market are so much noted and in demand. Next morning in due time his carriage was at the door awaiting our will to start for the Grange meeting, and the beautiful drive of fourteen miles from Point New Year to Pescadero was made with the greatest ease by his fine roadsters in two hours, so that after a good dinner, such as "mine host," Mr. Swanton, at the Swanton house, knows best how to give, we were all ready for the Grange meeting at 1 P. M. Pescadero Grange is not dead, nor in want of any element of true Grange life but one—a knowledge of just what to do, and the most practical way to do it. This was my office to ventilate, which I did as best I could in an address of two hours, and so much interest was manifested that an open meeting was called for to meet at Union hall, at 7½ P. M., when and where not only Grangers could be present, but everybody invited. Promptly to the hour the hall was well filled with Grangers, farmers and citizens, and an address of one hour given them upon Grange history, experiments, principles, objects and the various industrial alliances that sooner or later would be necessary to be made with other organizations, both State, national and international, to carry out and evolve the great coming question of capital and labor. A more attentive audience could not be desired and a more gratifying personal reception could not be asked for, than I met with in beautifully-located Pescadero, where they are in some measure cut off from the great center of California trade and business for want of better ingress and egress, but are not wanting in a rich farming country, the most pleasing and beautiful of localities, and with a climate not surpassed in the known world.

In my visit to Pescadero Grange, Brother Steele, its able Master, took the pains to have me made personally acquainted with every Patron and Matron present, which was to me a great help, and assisted me greatly in my address to them. Even so particular was he in this matter, that after talking to them for one hour, he interrupted my address by calling for a recess of half an hour for social converse and rest to the speaker. It was a charming idea and none enjoyed it so much as I did. I might here entertain you with several pages of how pleasantly I was made to feel that I was truly in the midst of a band of brothers and sisters, by being waited upon for a personal interview with each, and receiving invitations to go with each or some one to the social housee, but as I could only accept the invitation of one, Brother and Sister Steele and myself spent the interval from the afternoon to the night meeting with Past Master Brother Weeks, and over a most comfortable meal discussed our Grange work—from which tokens I can say to all Grangers, take courage. We are not dead but partially sleeping, till the time for our true awakening in carrying out the work, the great work that is before us, and in which we can neither stop nor flag, till the producer and the laborer in every department of the working hive is placed in his own proper sphere and so ennobled that the labor element is not only acknowledged the equal of capital, but made in every way and manner its peer—to which end and for which great purpose I am devoted to the work in hand. Blakey Pilkington.

Pescadero, November 25th, 1876.

Farmers and Grangers.

Open Meetings—Invitations Extended to all—Further Appointments.

The large and enthusiastic meetings which greeted Bro. Pilkington, the Worthy Lecturer of the State Grange, at Petaluma, Rockville, Elmira, Sacramento, Yuba City, etc., to listen to his able exposition of the principles and objects of our Order, have encouraged and induced further appointments to be made for the winter months. Meetings will be held as follows:

Wednesday, January 3d	Haywards
Thursday, January 4th	Elits
Saturday, January 6th	Stockton
Monday, January 8th	Linden
Wednesday, January 10th	Lodi
Thursday, January 11th	Gait
Saturday, January 13th	Roseville
Monday, January 15th	Grass Valley
Tuesday, January 16th	New Castle
Wednesday, January 17th	Wheatland
Friday, January 19th	Dixon
Saturday, January 20th	Vallejo

Notice of a meeting at Livermore appeared in the Press of Dec. 16th to take place on Thursday, the 4th of January. But as the Master of that Grange will necessarily be absent on that day it is thought best to postpone it to a future day, and call one at the hall of the West San Joaquin Grange at Ellis to take place on the 4th.

It would be more satisfactory to me if I could consult the convenience of the Granges that are to be visited by the Lecturer, but that course seems to be impossible, as half a dozen Granges might want him on the same day, and at widely separated places. The Granges will therefore excuse what would otherwise seem to be arbitrary appointments.

It is hoped that each Patron will exert himself to bring to these meetings not only the lukewarm brothers, but all farmers and others who are interested in the success of our Order, which is synonymous with the success and prosperity of our country.

Special invitations are extended to farmers who have been skeptical of the beneficial effects of our Order, to attend our meeting and listen to Bro. Pilkington, an able and eloquent speaker.

While the various Granges visited will not be called upon to bear any portion of the expenses of the Lecturer, it is expected, however, that individual members of the Order will manifest their well known liberality by meeting Bro. Pilkington at the depot, and extend to him the hospitality of their homes.

When installations occur on the day of speaking, the installation should take place in the forenoon and the speaking in the afternoon. Amos Adams,

Dec. 26th, 1876. Sec. State Grange.

From the Granges.

Round Valley Grange.

Editors Press:—Enclosed you will find list of officers elected for 1877. During the past year our Grange has been poorly attended, and I have nothing to report in the way of work done, except the erection of a hall. The Grange is indebted to a few vigorous brothers, whose energy has pushed through this enterprise, in spite of the slight encouragement they have met with from the bulk of the members. It is to be hoped that when we have a comfortable home of our own to meet in, we shall see a larger attendance at our meetings and more interest taken in the work of the Order. The hall is nearly completed, except the inside work, which must wait until freighting is resumed in the spring. The building is 24x50 feet, and the ground floor is adapted for a store. The funds have been raised by subscription, loaned by members to the Grange, so that the property is in the hands of the trustees, not of subscribers to a joint stock company.

W. T., Sec'y.

Covelo, Mendocino Co., Dec. 18th.

Nord Grange.

Editors Press:—We cannot boast of increasing numbers at present, but for a pleasant social circle we need not go outside of our organization, and have no idea of giving up to any discouragement.

Our annual Christmas tree will be laden with fruits of friendship and affection on Christmas night, in the hall where our Grange meetings are held, to which all friends and neighbors are invited. C. A. Colby.

Secretary of Nord Grange.

Nord, Butte county, Cal., Dec. 18, 1876.

Lodi Grange.

Editors Press.—There will be a public installation of the officers elect of Lodi Grange, on Wednesday, January 10th, 1877, at 10 o'clock A. M., at the church in Lodi. At 1 o'clock P. M. Brother Pilkington, the Worthy State Lecturer, will address the meeting on the principles and objects of the Order, to which all are cordially invited to attend. At 3 o'clock a harvest feast will be served at the Spencer house, by J. E. Spencer.

Mrs. A. W. Gove, Sec'y.

Grange Elections.—Our thanks are tendered to those who have sent us reports of the elections in the Subordinate Granges. We hope we shall have early reports from all the Granges.

Election of Officers.

Azusa Grange, No. 94, Los Angeles Co.—J. C. Preston, M.; J. W. Marshall, O.; John Shelton, L.; C. Vaughn, S.; J. W. Casey, A. S; Chris Thronson, C.; E. R. Thompson, T.; H. Cleveland, Sec'y; J. T. Martin, G. K.; M. L. Preston, Ceres; L. N. Maxcy, Pomona; A. E. Scott, Flora; S. M. J. Reeves, L. A. S.

Binghampton Grange, No. 174, Solano Co.—Election, Dec. 23d: A. Bennett, M.; S. Brown, O.; J. F. Brown, L.; C. Plumer, S.; G. A. Brown, A. S.; J. Tuck, C.; J. M. Bell, T.; J. B. Jameson, Sec'y; Wm. Johnson, G. K.; B. V. L. Bennett, Ceres; Mrs. Helen Bell, Pomona; Mrs. E. L. Brown, Flora; Mrs. Mary E. Gay, L. A. S.; S. Brown, Trustee.

Florin Grange, No. 130, Sacramento Co.—Election, Dec. 23d: L. H. Fassett, M; C. Towle, O.; J. K. Chandler, S.; C. Simons, A. S.; Sister M. Amos, C.; W. Robinson, T.; J. T. Amos, Sec'y; E. Riggs, G K; E. Reese, Ceres; E. Bates, Pomona; A. Walker, Flora; E. A. Fassett, L. A. S.

Lodi Grange, No. 92, San Joaquin Co.—C. T. Elliott, M.; O. O. Norton, O.; W. H. Post, L.; C. C. Stoddard, S.; S. F. Mathewson, A. S.; J. W. Kearney, C.; A. W. Gove, T.; Mrs. A. W. Gove, Sec'y; J. Hutchins, G. K.; Mrs.; C. T. Elliott, Ceres; Mrs. S. F. Mathewson, Pomona; Mrs. R. Pixley, Flora; Mrs. L. M. Morse, L. A. S.

Nord Grange, No. 87, Butte Co.—Election, Dec. 9th; J. B. Clark, M.; Geo. Van Woert, O.; G. W. Colby, L.; Wm. Van Woert, S.; P. M. Gwin, A. S; L. Swena, C.; J. R. Haughton, T.; C. A. Colby, Sec'y; T. M. Smith, G. K. Mrs. Mattie Kern, Ceres; Maggie Leininger, Pomona; Nellie Kern, Flora; Mrs. W. Van Woert, L. A. S.

Round Valley Grange, No. 217, Covelo Mendocino Co.—W. Pullen, M; J. A. Crawford, O.; W. Crawford, L; Bro. Brush, S; Bro. Faulds, A. S; Bro. Todd, C.; Bro. Updegraff, T.; P. Handy, Sec'y; Bro. Foster, G. K; Sister Handy, Ceres; Sister Updegraff, Pomona; Sister Brush, Flora; Sister Johnson, L. A. S.

Santa Clara Grange, No. 71, Santa Clara Co.—I. A. Wilcox, M.; P. G. Keith, O; P. Hillebraud, L; W. H. Swope, S.; J. Glendinning, A. S.; Benjamin Campbell, C.; S. I. Jamison, T.; A. B Hunter, Sec'y; A. R. Woodhams, G. K.; Mrs. I. A. Wilcox, Ceres; Miss Ada Garwood, Pomona; Mrs. Benjamin Campbell, Flora; Mrs W. H. Swope, L. A. S.; Trustees—R. McCubbin, full term; A. Agnew, unexpired term of two years.

Santa Cruz Grange, No. 68, Santa Cruz Co. Election, December 9th: J. W. Morgan, M.; G. C. Wardwell, O.; J. S. Waite, L.; Thomas Pilkington, Sec'y; William Oliver, T.; C. P. Kirkpatrick S.; B. F. Peters, A. S.; G. H. Bless, C.; Thomas Crooks, G. K; Mrs. Laird, Ceres; Mrs. Kooser, Pomona; Mrs. Wilson, Flora; Mrs. Humphrey, L. A. S.

Stanislaus Grange, No. 4, Modesto, Cal.—Election, December 9th: V. E. Bangs, M.; John V. Davis, O; Mrs. E. J. Turner, L; P. P. Stiles, S.; L W. Crawford. A. S; W. B. Buckner, C.; W. B. Wood, T.; Theodore Turner, Secretary; H. M. Coffee, G. K.; Mrs. C. P. Stiles, Ceres; Mrs. E. T. Robinson, Pomona; Miss Emma E. Moyle, Flora; Mrs. M. A. Wood, L A. S. Trustees—S. W. Coffee, John Vivian.

Two Rock Grange, No. 152, Sonoma County.—A Wilsey, M; W. D. Freeman, O.; S. M. Martin, L.; T. Keegan, S.; H. Andrews, A. S.; S. Q. Barlow, C.; J. R. Dop, T.; J. C Purvine, Sec'y; J. V. Wilson, G. K.; M A. Dop, Ceres; N. M. Martin, Pomona; M. Gaston, Flora; E. Wilson, L. A. S.; J. V. Wilson, Trustee, for three years term.

St. Helena Grange, No. 30, Napa Co.—Election, Dec. 16th: John Lewelling, M.; H. M. Allen, O.; C. W. Hewes, L.; J. C. Weinberger, S.; John Norton, A. S.; D. Edwards, C.; Wm. Peterson, T.; Chas. A. Storey, Sec'y; Harvey J. Lewelling, G. K.; Mrs. F. J. Crane, Ceres; Mrs. J. C. Weinberger, Pomona; Miss Allie Byers, Flora; Mrs. H. M. Allen, L. A. S.

Ukiah Grange, No. 114, Mendocino County.—A. O. Carpenter, M.; N. Wagonseller, O.; T. R. Lucas, L.; D. P. Cowsert, S.; R. Clark, A. S; M. York, C.; Saml. Orr, T.; W. D. White, Sec'y.; G. W. Jackeon, G. K.; Helen Carpenter, Ceres; L. G. White, Pomona; Flora Purdy, Flora; Clara Wagonseller, L. A. S.

Woodbridge Grange, No. 84, San Joaquin Co.—Election, Dec. 5th: Ezra Fiske, M.; G. H. Ashley, O.; E. G. Williams, L.; J. A. McMurray, S.; John Crist, A. S.; H. M. Woods, C.; W. B. White, T.; J. D. Huffman, Sec'y; D. C. Deady, G. K.; Sister J. Hart, Ceres; Sister M. A. Perley, Pomona; Sister White, Flora; Sister Eliza Grier, L. A. S.

In Memoriam.

SANTA CRUZ GRANGE, No 68, December 23d, 1876.

Whereas, Our worthy sister, Mrs. E. Pollard, has been called away by our Divine Master, therefore be it

Resolved, That in the death of our worthy sister, Mrs. E. Pollard, our Grange has lost a true and most worthy member, her family and husband a kind, sympathizing counselor, the community a most worthy and excellent member, and the religious society of Baptists, to which she belonged and of which she had been a member since its earliest commencement, for nearly 19 years, truly a mother in Israel.

Resolved, That we do truly sympathize with the husband and family of the deceased in their great bereavement, and that the preamble and these resolutions be placed on our records, that a copy of the same be sent to the family of the deceased and also to the Rural Press for publication.—[Committee: Thos. Pilkington, Geo. H. Bliss, Mrs. Grover and Mrs. Laird.

Agricultural Notes.

California.

EL DORADO.

No Rain.—*Republican*, Dec. 21: We are still without rain, and our bright, warm days and frosty nights still continue. We had hoped that with the new moon the flood gates would be let loose, but as that event took place nearly a week ago, with no change in the weather aspect, it is feared that we shall have little or no rain for some time to come.

FRESNO.

Discouraging.—*Expositor*, Dec. 20: The cold, dry weather keeps the spirits of the farmers below par. Those who were inclined to the "moon change" theory of rains dropped their feathers when the new moon appeared, and brought no wetness with it. Others who have other means of divining the approach of rain, by feeling rheumatic pains in their bones, or who can tell by the way the smoke clings to the earth, or the birds fly when a storm is approaching, have consulted their signs and found them both favorable and unfavorable. But these weather prophets have failed to bring rain. The ground remains dry and dusty, and the vegetation pinched and starving. And this is the real condition of things throughout all Southern California, so far as we can learn. Those of our farmers who can, we think, had better begin to irrigate their lands, and prepare for the worst; then if seasonable rains do come, no harm will accrue. The most serious apprehension at present is felt by the wool growers. The old feed is nearly exhausted, and the new is not coming on. The lambing season will soon be on hand, and it is feared great losses will occur. We hope these fears may be entirely groundless, and they certainly will, if rain comes shortly in any considerable quantity.

KERN.

Demand for Alfalfa Fields.—*Courier*, Dec. 23: The value of alfalfa fields was never more appreciated than this season. Usually the rains of the early part of November start the grass in the foothills, and by the end of that month it becomes luxuriant, tempting the flocks from the high mountains and the valley. The entire absence of rain, so far, has left outside herds in a state of starvation, and every day men are enquiring for an alfalfa field. The immense demand of the canal company for hay has taken all outside lots, and the stacks now standing in the neighborhood of Bakersfield have been, and are being kept for the use of the owners, or are engaged by men who made their appearance in October with a sort of foresight of the season. Some are now paying 25 cents per month per head for sheep, and have been doing so for the past two months. They thought it very high for a time, but as the rains still hold off, and others are coming in prepared to pay any price for the same privilege, which they cannot get, they are very grateful for their security. Their flocks are in fine condition, and the saving in wool alone will pay the expense. Compared with the man who must winter his sheep in a starving state, hundreds dying every week, the proprietor who has secured his feed in advance is most fortunate. Two Frenchmen, who came in the other day driving their flocks before them, consisting of upwards of 7,000 head, had been led to think if they could only reach Kern island they could get all the hay and grass they wanted. They saw the huge stacks of hay from a distance, and looked upon their suffering animals with great relief, and no one can imagine their disappointment when they were told by the men to whom they were referred that it would be impossible to find a place to pasture or feed their flocks. Everything had been taken. They were obliged to resort to the coarse grasses of the borders of the lake, but they will learn that the lands which were open to all comers in years gone by, are now private property, and are all in use. Every farmer who has cut his ten tons of hay per acre from his alfalfa field this year, will be able to get $10 per ton at least, on the ground, and reap a harvest of $80 per acre net.

LAKE.

Tall Barley.—*Bee*, December 23: We have been shown, by the Rev. J. Woods, of Kelseyville, some "tall barley." It is certainly a remarkable growth for the season. It is about two and one-half feet long, and nicely headed. It was grown in Kelseyville, at the residence of Mr. Woods.

No Rain Yet.—It is now about the last of December, and as yet there are no indications whatever of rain. In past years we have generally had at least one pretty good rain by the middle of November. At present it does look as though we were to have another dry winter. Our farmers would be the happiest people in the world, just now, if they could be only encouraged to hope for rain within the next two weeks.

MARIN.

Sacrifice of Fish.—*Journal*, Dec. 21: We received a communication from Paper Mill creek, too late for our last, stating that something had caused a fearful loss of fish in that stream, and asking the attention of the fish commissioners to the case. The stream for more than a mile was filled with dead fish, mainly trout, and those that were not dead were hopping about in a strange manner. Some Chinamen were arrested and examined before Justice Crandell, but were not found guilty of poisoning the waters. Our correspondent says the water from the paper mill was of a very blackish or dark blue color. He urges the fish commissioners to investigate the matter, and we earnestly hope they will do so. The loss of such a body of fish is very serious, and certainly where they lie dead or dying in such numbers it would not be hard to ascertain the cause.

NAPA.

New Wine Cellar.—St. Helena *Star*, Dec. 22: Berringer Brothers have commenced work on a new wine cellar, 64 by 100 feet, on their beautiful place purchased of Mr. Daegner. The present work consists of excavating into the rock hillside back of the dwelling, where the cellar is to be located. It is not yet decided of what it is to be built.

Sack-Holder Company.—*Register*, Dec. 23: On Wednesday a meeting of the stockholders in the Napa sack-holder company, was held. This company has just been organized for the purpose of making and selling a patent sack-holder, to be used with the steam-thresher on the harvest field. The machine is of very simple construction, and being nearly all of wood, weighs only about 35 pounds. It consists of a funnel-shaped mouth or entrance, about the size of the mouth of a sack, to the lower part of which the sack is fastened by an ingenious artifice, and from which the filled sack can be detached by a slight movement of the finger. This holder can be raised or lowered at pleasure, and made to remain at any hight that is found most convenient. The whole arrangement runs on two wheels, and when the sack is filled, the operator simply runs sack and all to the sewer, while it is detached in the easy manner described. It has been proved by actual experiment that this method of filling sacks will put five pounds more in each sack than by the ordinary way, and there is no shaking of the sack to be done by the sewer. It also saves one man's work, an item that is of the greatest importance to farmers. This sack-holder has been patented by D. S. Wing, of New York, who has sold to the company for the sum of $5,000, all the right to manufacture and sell the article in San Francisco, Marin, Sonoma, Napa, Solano, Lake, Yolo, Colusa, Mendocino, Humboldt, Trinity, Siskiyou and Del Norte counties. The following are the names of the principal stockholders in the company: Daniel Gridley, Stone & Baker, Alexander Gridley, E. D. Sawyer, R. H. Sterling, J. M. Mansfield, A. D. Grigsby, J. J. Sigrist, A. G. Clark, John S. Hogan, E. M. Patten, Jr., W. W. Stillwagon, J. W. Hostetler, G. F. Hartwell, T. L. Grigsby, W. C. S. Smith, E. W. Robinson, James A. Hill—numbering 26 members in all.

SAN DIEGO.

Fruits.—*World*, Dec. 18: We called on friend Fessenden yesterday and obtained from him the result of an experiment he has made to raise the banana, pine apple, orange, lemon and guava on the high mesa land east of town. The object of the experiment was: 1. To ascertain if the tropical fruits mentioned could be raised on our mesa land. 2. To ascertain how little irrigation was necessary to secure a healthy growth. It is now two years since the plants were put out. The results so far obtained are very satisfactory. They show that with protection from the westerly winds, all of them can probably be grown on the mesa land, and that with good cultivation, irrigation after the first year can be dispensed with. A complete result has been had as to the banana, the lemon and the guava; the bananas two years old are bearing; the lemons two years old when planted and two years of growth since, are bearing; and the guava is borne down with the delicious fruit. The orange trees, of the same age as the lemon, are as healthy as any in California and perfectly free from the least appearance of blight. They have attained a hight of 12 feet. The pine apple plant has not yet borne fruit; but we think it will bear next year. In this belief we are confirmed by the opinion of a highly intelligent lady we have recently met from Nicaragua. We asked whether she thought we could raise pine apples successfully in San Diego. She replied, "Yes, but the fruit will be smaller than with us, and the plant will be a year or two longer in coming into bearing; but my opinion is, the plant would bear fruit in San Diego when three years old."

SAN JOAQUIN.

The Swamp and Irrigated Lands.—Stockton *Independent*, Dec. 23: While farmers upon the uplands of this State are now anxiously watching for rain, those who are fortunate enough to have means of irrigation are not troubled, and even those who own swamp land, so long considered nearly worthless, are not at all anxious to witness a heavy rainfall. This has been a very favorable winter for those engaged in the reclamation of the tule lands, and as most of the work in that line is now being systematically done, with a view of securing a thorough and permanent reclamation, we are satisfied that many thousand acres of very valuable land will soon be added to the wealth-producing resources of California. Irrigation and reclamation should be jointly considered, and when our people awake to the necessity of making a concerted effort to control the waters of the lakes and rivers of California, and utilize them for the benefit of all, dry seasons will not be so much dreaded. Several large land owners in the southern portion of this valley have begun the work, and thus far they have been eminently successful. By the same operation the high lands have been given a supply of water, while the swamp lands have been reclaimed and made valuable by the diversion of the water from its natural channels. There is ample opportunity for the investment of capital to bring about this double result, and California will never become truly prosperous until this subject receives more attention from the people.

Potatoes from Andros' Island.—The schooner *General Sigel* arrived yesterday from Andros' island, in Sacramento county, with a cargo of about sixty tons of potatoes. They were raised by Mr. Butler, who recently came from Kentucky, and who owns about nine hundred acres of land on the island, and the cultivation of which he is personally superintending. This is his first year's experience in farming in California, and he has been very successful. His crop of potatoes has been large. Several schooners have taken cargoes from his place to the San Francisco market, where they meet a ready sale. The average yield this season has been about one hundred and fifty sacks per acre. The potatoes are large and appear to be of good quality.

Swamp Land Matters.—On Wednesday the Supervisors transacted the following swamp land business: "The affidavit of the Trustees of Swamp Land District No. 282, showing that more than the sum of $200 in gold coin has been expended per acre in reclaiming the land in said district, was received and placed on file. The report of the civil engineer of Swamp Land District No. 282, reporting a plan for work, accompanied with a map, was received and placed on file. The report of the Trustees of Swamp Land District No. 282, and asking for the appointment of three Commissioners to view and report the same, was received, and on motion it is hereby ordered that F. T. Baldwin, Geo. Castle and J. W. R. Hitchcock be said Commissioners."

SANTA BARBARA.

Late Threshing.—*Telegraph*, Dec. 23: Perhaps the latest threshing done in the State this year was that of Mr. Schacht's this week for Frank Frates. Frank had a lot of barley stacked up for feed, but the high prices now prevailing caused him to change his mind and have it threshed. He secured 250 110-pound sacks of very fine grain, and is in luck.

SONOMA.

Crop Notes.—*Democrat*, Dec. 23: B. B. Capell has recently traveled through Mendocino, Washington and Russian River townships, and informs us that he never before saw a better prospect for a crop at this time of the year. In many places the wheat is up so that it covers the ground. He thinks the area sown is unusually large. Nearly all the wheat is in, and but few have had to stop their plows until done. A light shower is all that is needed in this locality for some time to come. He also informs us that stock of all kinds is doing unusually well—this is true of sheep, neat cattle and horses. Wm. Mulligan, of Alexander valley, has all his land sown in wheat—between 200 and 300 acres. There has been some barley sown, but nearly all farmers have sown wheat. The largest fields in Alexander valley are those of Ira Bidwell, John Bidwell, Nick and George Young, and Mr. Thornburg. Mr. Capell thinks that the bridge over Russian river, in Alexander valley, is not only a great convenience, but that it is one of the best bridges in the county. Mr. Whitaker informs us that the crop prospect in Bennett valley was never better.

STANISLAUS.

Dry.—*News*, December 22: The weather still remains dry, calm, cold and frosty. The above item is becoming monotonous, but still we have repeated it from week to week until we are heartily tired of seeing it in print. Tuesday last was the first wind we had sufficiently strong enough to put the numerous windmills of the place in motion for the past two weeks. As a consequence, water was becoming a scarcity at many residences where no other appliances were in use. Some of the farmers are trying to plow, or rather dig up their fields, but find it slow work and very unsatisfactory. Still, many are industriously working, trying to get in their crop. In some localities we have heard of grain sown early on summer-fallowed land, that has died out, and will have to be re-sown.

TUOLUMNE.

Mountain Oranges.—Tuolumne *Independent*, Dec. 15: There is an orange tree, 15 feet high, with a trunk six inches in diameter, growing thriftily on the ranch of Mr. J. Reynaud, at Gold springs, Tuolumne county. It is a seedling, seven years old, and commenced bearing this year. The fruit is large, the specimens measuring 12 inches in circumference. He has also a lemon tree, five feet high, grown from a cutting planted last year. He says that oranges and lemons thrive on his place, there being no frost to harm them. Mr. J. W. Keith, who has a fine ranch at Kanaka flat, near Jacksonville, on Saturday presented the *Independent* with a dozen fine oranges, seedlings, grown on his place. He has four trees 12 years old, which are eight or 10 inches in diameter. The crop this year is about 1,500 oranges. Last year some of the fruit, overlooked, remained on the tree through the winter and were gathered in June, sweet and luscious. Oranges can be grown in that section of the country to supply this part of the State, and would pay better than hay or grain, which many farmers seem to think is the only paying crop. Oranges and lemons of mammoth size are also raised at Tuttletown and at the French garden, in Sonora.

Home Growth Oranges—*Delta*, Dec. 16: We saw at Krafft's a few days since a number of oranges which were grown by Mr. B. Mills, on his place near Farmersville. They were of fair size, rich color and fragrance. The tree from which they came bore 123 oranges this season. Mr. Krafft has a number of trees old enough to bear, from which he will very likely obtain several hundred oranges the coming season.

VENTURA.

A Question for Swine Growers.—*Free Press*, Dec. 16: It does seem strange that an intelligent, wide-awake community of farmers, such as we have in this county, should continue, year after year, to export the very finest of fat hogs by the thousands, and import the bacon, hams and lard they require for home consumption. By this *modus operandi* the live stock commission merchant, the pork packer, the steamship company and the grocer make a handsome profit, and it all comes out of the pockets of the hard working farmer, who buys back at an advanced price a supply of bacon and lard. Business conducted on this principle is detrimental to the best interests of our county, and all should strive to put a stop to imports and increase the amount of exports. Some say that bacon cannot be successfully cured here; that our climate is too warm. The climate of Los Angeles county is on an average several degrees warmer than that of our own, and yet the farmers of that county make splendid bacon, in sufficient quantities to not only supply the local demand, but for shipment to Arizona and the counties of Kern, Inyo and Mono. In Santa Barbara county the farmers make as good bacon as can be produced anywhere, and find a ready sale for any surplus they may have. The Kelsey Brothers, of this county, and doubtless two or three other farmers, are a step in advance, and every year put up a supply of as fine bacon and hams as we have ever seen, for their own use. But they stop here, and do not manufacture a pound to sell. A glimpse into the smoke house of Kelsey Bros., will convince any one that a first-class article can be successfully manufactured here. Some of our business men put in a portion of their time grumbling because of a scarcity of money, and because so much business is conducted on the credit principle. These same men in place of paying cash to the hard working farmer or manufacturer for an article of any kind produced at home, prefer to send their money away where it will not be seen again, and in a measure force upon the people imported articles, which would be, were our own people encouraged, produced here. Notably is this the case in regard to coal oil, soap, flour, etc. If merchants and business men of this town and county would one and all encourage home manufactures, in a short time money would become more plentiful and business be placed on a better and surer basis.

YOLO.

The Prospect.—*Mail*, Dec. 21: We occasionally meet a farmer who has a smile on his face, but as a general thing there is a lack of cheerfulness in view of the prospects for a crop next season. We believe that all will agree that so far the season has been favorable above the average. The early heavy rain made it possible for them to plow, and until about one week ago they were all busily engaged in putting in their crops. Gradually it became dry and the ground too hard to plow, and they ceased sowing. The summer-fallow and volunteer sprouted and appeared above ground green and beautiful. It lacked moisture to make it grow very fast, and the farmers began to see visions of a dry year. It is undoubtedly true that the heavy and continuous frosts of the past three weeks, and the absence of rain, have a very bad effect upon the grain now up, and unless a change comes soon it will fare badly. The signs of rain have not been very many or threatening. The moon has been renewed, and makes her circuit away to the south, leaving the weather-wise to cast a doleful horoscope for the future; and yet all these things tell us nothing. One farmer, who is abundantly able to stand a dry season, says it is all right; that there will be a large area of land summer-fallowed for next year, and that it will be a benefit to the soil for it to rest one year. It would be well enough, but there is a large number who are not prepared to winter and summer on desolate plains. We believe there will be plenty of rain for an average crop, and those who have summer-fallowed will fare well.

Idaho.

Fruit and Dairy.—A Boise City correspondent of the *Avalanche* writes of the farmers on the Payette: Mr. Knox has moved his orchard from the river bottom and planted it on the bluff or sage-plain, and constructed an elevating wheel of the Egyptian style or rather on the style of those used on the Nile for irrigating purposes. It has a circular rim connected to the paddles where the elevators are placed. It heaves a powerful stream, runs regular and easy. Mr. Stuart has been engaged last summer in the dairy business, milking some 75 head of cows. He dispenses with the use of pans which are common in dairy business to raise the cream, and churns the entire milk from the cows. This churn is a 40-gallon barrel with dasher and lever. On the west side of the milk house is a shaft on an angle of 75 degrees and at its center a circular platform, thus forming an inclino plane. Here a small pulley and shaft and crank connects the beam and dasher of the churn. A dog is placed upon the incline plane and the shaft is immediately put in motion and the churning rapidly completed. The butter is worked and freed from all the milk and whey. Then it will not absorb any more salt than enough to keep it sweet. A solution of brine is put over the top of the barrels when filled and thus forming a hard and solid crust of salt.



The Farmer and Merchant.

A farmer came to town one day
Riding upon a load of hay,
And stopped just by the village store;
The merchant standing in his door
Was sharp to sell some stock in trade,
As he that day had not yet made
A sale of magnitude. "Come in,"
Said he, "and have a glass of gin;
I've got h best assortment here,
Of whisky, brandy, rum and beer,
That this town holds. Provisions, too,
Of every kind, I'll tell you true;
And I will buy your load of hay,
To pay for what I sell to you,
At a fair price;—but let me say,
The butter which you brought last week,
(If I may be allowed to speak,)
Was just a trifle short: I make,
No doubt it was a slight mistake,
Only three ounces to the pound,
Which you will make good, I'll be bound."

"Your pardon, now," the honest farmer cried,
"I think the error was not on my side,
For when I weighed the butter pound by pound,
With honest pounds of soap that day, I found
The weight was quite correct, for at your store
I bought that very soap the day before."

—*Tuolumne Independent.*

Rich People—Who They Are and How They Get There!

[Written for the PRESS by EDWARD BERWICK.]

EDITORS PRESS:—I do not propose to weary your readers with a resume of the work of Adam Smith on the "Wealth of Nations." There is enough of the "old Adam" in each of us, and "Smith" is a name we are all quite well acquainted with already. Moreover, although we are all anxious to become *rich*, few of us have patience to peruse so pithy and dry a work as Adam Smith produced and published.

I want to prove to my readers, if possible, how quickly they may number themselves among the

Company of the Wealthy.

Riches and Rothschilds both begin with an R, and are by some supposed to be almost synonymous terms; so I can't do better than begin my Farm House Chat (M. M. having given us up?) by telling a story of one of them. It was something thus: One of the Rothschilds, (of course a baron, and of course, either Nathan, or Anselm, or Meyer,) was upon a certain day engaged in his office parlor writing a letter; to him is ushered in a certain Count, whom the Baron requests to take a chair; the Count, indignant at not being immediately attended to, asks: "Do you not know, M. le Baron, who I am, that you ask me to take a chair."

"Certainly, M. le Count de ——, take two chairs," amicably responds the Baron.

Whether the Count was mollified by this sop to his injured dignity your correspondent deposeth not; but the incident may serve as a convenient exponent of the doctrine I wish to set forth, that:

Great as may be the advantages of vast pecuniary wealth there is a well defined limit to its potential energy. Or to put it more plainly, no man, however rich, can either eat *two* dinners at once, or enjoy more than one night's rest in a night.

It is true that a line in that popular song: 'The Roast Beef of Old England," tells how

"Great Handel, we read, could eat dinner for *six*."

But it is universally conceded that Handel was a musical *giant*, so his exception merely proves my rule. Furthermore, "dinner for six" of such ordinary mortals as you or I, Messrs. Editors, would constitute but one dinner for the immortal composer. Even had *he* increased his modest meal into dinner for twelve, his waistcoat would doubtless have felt "full inside," and the buttons might have had their energies severely taxed.

There seems to be a general delusion abroad that money increases a man's powers of enjoyment, and that a rich man must be a happy man. So, although knowing how poor our special chances are of becoming millionaires, we all go grabbing, and rustling, and making liars and brutes of ourselves, in order to pile up a few more dollars than our neighbor has; and when that vast social eminence is attained, and we are neighbors, in our new big house, to a bigger-horsed and bigger-piled acquaintance, we go at it again, hammer and tongs, till we are haply able to look down on him from the exalted summit of our new success in money-grabbing. By a continuation of this process, supposing that happiness is gained in this manner, it will be seen that to one man only, the supremely rich, is the perfection of happiness possible. He alone attains the heaven of the

"Gospel of Getting on."

Happily for us all, that is evidently a spurious gospel. There is no *good news* at all in it, for the one man who attains its heaven does not know he's there, and, if he did, would weep, with Alexander, at his "ne plus ultra."

This question of wealth, possession of goods, is altogether one of relation. Think how wealthy the man of the most moderate means, living within the pale of civilization, is, compared to a prince or king in the interior of Africa, yet the African prince is rich in the eyes of myriads of abject subjects.

Come nearer home: think how rich any class among ourselves is compared with the same class a century, even, ago. For example, think what necessaries of our everyday life were almost unheard-of luxuries to them. Not only in matters of diet, free use of tea, coffee, sugar and such things, but in a thousand and one ways, facilities for healthy living, for travel, for communication, for pastime, but above all for learning. Think how laborious a task it was before printing became general to obtain even the rudiments of knowledge; think of poor, footsore scholars, toilsomely traveling to tutors living weary hundreds of miles distant. Think of these tutors wrestling unarmed against the overwhelming odds of ignorance and bigotry and vested interest; often yielding their lives in the struggle, that haply we might victoriously wave the standard of truth over their and our sworn foes. They labored, and, verily, we are rich who enter into their labors.

Think how rich you have been made by them in the society you may enjoy. You can be entertained in your own home by the wittiest, the wisest, and the worthiest of men who have ever put pen to paper. Their choicest sayings, their most charming expressions, their keenest thoughts and highest aspirations are continually at your service. You have not to travel a thousand miles to a university to pick up a few grains of gold after much pan and shovel work. The clean gold is offered to you, nay, sometimes pressed on your acceptance somewhat too urgently, at your own doors.

Books make mental culture, and, as a consequence, mental and bodily refinement, possible to all.

Education gives you the power to use books. Do not suppose that when you have mastered "the three R's" at school, that you have an education. Education extends through a lifetime. Never feel

Too Old, or too Proud to Learn.

Happiness mainly depends on the extent to which you are educated. The more you know the more you have in life to interest you, the wider your sympathies will be. Your eyes see just what your trained capacities allow them. One man picks up a piece of rock and sees nothing there but a piece of rock; another picks up the same piece and finds a whole history there. Johnny Whopstraw sees a dead tree on the ground, and all he sees is a log; Claude Melnotte, the artist, comes along, and the fallen trunk, with its wealth of mossy and lichenous jewels, its rich harmonious tints, is a "thing of beauty and a joy forever."

Whopstraw may have the most gold coin at command, but Melnotte is the richer man, he has

Most Pleasure in Life.

The rich man is not the man who *has* most; as I said before, only *one* man can attain that heaven; the man who is much in himself, is the really wealthy individual, the true "solid man."

"The man's the gold," as Burns sings, *not* the gold the man. The same truth has found variety of expression, but it needs bringing home to every one among us.

Schiller, the great German poet, expresses his preference thus:

If thou hast something, bring thy goods,
A fair return be thine;
If thou art something, bring THY SOUL,
And interchange with mine.

The rich, then, to my notion, are those who are seeking to be something; to be wise, loving, tender, true, humble, bold, and self-denying; laying up such "treasures as wax not old, which no thief approacheth and no rust corrupteth." Those to whom this is gospel find a pleasure in being outstripped by their fellows in the race for wealth; those who believe in the "gospel of getting on" pecuniarily, find their gospel most certainly of human origin, a prophecy and history of jealousy, envy, and strife, of vexation, ruin and despair.

California.

[Written for the RURAL PRESS by C. F. T.]

California, thou spot on earth where nature seems to have attained the perfection of beauty and enchantment, ring forth forever thy strains of golden music, speak out in all thy glorious majesty, proclaim to the nations of the world that thine is the home of peace, happiness and quiet contentment.

Where, in all the countries of the globe, can man find a brighter, happier spot, a more prosperous land than beautiful, golden California, where art, blended with nature, creates all that dreamy mortal can desire?

Methinks sometimes that the Great Creator, in his beneficence, destined for the happiness of mankind one particular garden spot in which the harmonies of all that in nature was beautiful, grand and sublime, should be found. Where pretty lakes and rippling, gurgling mountain streams entwining nestling valleys, o'ershadowed by the green-awarthed hills, should draw the heart of man. Where birds the heavens with sweetest music fill, where flowers o'erflowing with aroma spread fragrance through the balmy air, and where the gorgeous sunset with its mellowing light, leads man to think of God and happiness. And this bright land is California.

A Word to the Girls.

The country, the beautiful country! What an opportunity for health and development of both body and mind a cheerful, neat and well managed country home offers. How often is this golden opportunity improved? How many of our country girls excel in both physical and mental development? How many reach an advanced womanhood with all those powers cultivated which make an old lady loved and revered, because much time has enabled her through well improved opportunities, to become rich in knowledge and experience?

A woman advanced in years, with good health, a kind heart and a mind well stored with treasures which only self-culture and years of experience can give, unconsciously wins the love and admiration of all. We enjoy resting our eyes on the calm, sweet and interesting countenance of such a woman, and thinking of the useful life she has lived, and of the great pleasure she is to all around her.

How different her countenance from that of a woman who has neglected everything that would improve, beautify and ennoble her!—who, after her school days were ended, has not taken the trouble, or, as she terms it, "has not had time to look inside a book;" who has but one idea before her, and that is to make money; who, from year to year, has drifted along and in a poor way waded through the work upon a large farm, doing without this and that convenience, only ambitious to add a little more to the treasured-up store.

Too often do we see persons thus reach a selfish, uninteresting and unhappy old age. Does the work in the country demand it? No—it is the result of abused opportunities. The work in a farmhouse offers the most healthful exercise for the body, and it is only by poor management that no time is found for the culture of the mind.

Circumstances may for a time compel persons to overwork; make it necessary for them to devote their entire time to hard physical labor, but this need not continue from year to year. There is not a country girl who, after she leaves school, could not, as a rule, devote one, two or three hours daily to study, or good useful reading. Such a course, if continued through life, would not only keep her mind stored with valuable knowledge, but would discipline and give dignity to her whole being. It would enable her to better perform her household work, by giving health and tone to the entire system. To attain perfect health, mental exercise must be combined with physical. The country, with its fresh air, pure water and cheerful, beautiful landscapes, offers the best opportunities for both.—*E. B., in Western Rural.*

Work and Play.

B. S. Proctor, in a recent lecture, said: Now, here I am disposed to run counter to a common item of so called good advice. I have repeatedly heard the classic scholar advise that we should pursue Latin for the pleasure it affords; and the botanist dilate upon the enhanced pleasure of a walk in the country if your vasculum be strapped to your shoulder and your "Flora" under your arm. I do not consider that is at all the right light in which to view the matter. It is like telling a child that his medicine is not nasty, and the natural reply is, "Yes, it is nasty, and I won't take it." But I am speaking to men, not to infants, and I would say, if you can enjoy your Latin and your botany, by all means do so, and thank heaven that your path is made pleasant to you. But if these subjects be uncongenial, study them conscientiously, a little more than you think can be reasonably expected of you, and then thank heaven yet more fervently that you can do your duty, be it a pleasure or a pain. If botany be not to you both a pleasure and a relaxation, do not spoil a holiday for the sake of a little half-hearted study. When you do study let it be with earnestness and industry, and when you take holiday, let your pleasure be pure and hearty, let it be a bumper full to the brim. And if you must have a "Flora" with you, let it not be Babington's or Bentham's, but your sister Flora. If you take your study into your recreation you will become impatient of such a spoil-sport, and jump to a wrong conclusion for want of patience to get at the right one. Now I have no objection to jumping. I have seen a great philosopher jump, though he was one of the most cautious men the world ever knew as regards jumping to a conclusion. When I was a boy Faraday challenged me to a jumping match, and with a hop, step and jump, he cleared the length of a grass plot in my father's garden, while I could accomplish only two-thirds the distance. I do not think he was studying all the while. No, he was taking a holiday and having a game with the children. It is only small men who must be always studying, and who are afraid of their reputation suffering by the enjoyment of light-hearted pleasures.

Two persons were once disputing so loudly on the subject of religion that they awoke a big dog, which had been sleeping on the hearth before them, and the forthwith barked most furiously. An old divine present, who had been quietly sipping his tea while the disputants were talking, gave the dog a kick, and exclaimed, "Hold your tongue, you silly brute! You know no more about it than they do."

One Result of the Centennial.

Englishmen know more about American society than they did. Time was when Americans could discuss English topics with far more intelligence than Englishmen displayed in talking and writing about the United States. The Centennial exhibition has enabled many English travelers to study American politics and social life, and the London press cannot make blunders in reference to the United States without being corrected by many readers. The intelligence and accuracy which the London papers are now displaying, in explaining the the electoral system and the complications in the South, are noteworthy. Here is a shrewd paragraph in the Manchester *Examiner* on American habits: "The American people of every class dress well, although clothes there cost much more than in Great Britain. Among the women of all classes, except the wealthy, printed calicos are generally worn, but even among the poorest they are kept clean and tidy, as a rule, and in many cases they are made with a smartness and taste which makes them appear both pretty and becoming. Within the last few years there has been quite a change in the style of patterns of American prints. Anything that is gaudy and 'loud' has become almost unsalable. On the streets, and even in some of the workshops and factories, it is difficult to distinguish Jack from his master, in the United States, either in dress or manner. My experience of the people was that they are remarkable for their courteous civility, both to strangers and to each other. They have got rid, in the more settled portions of the country at least, of many of those peculiarities which tradition has attached to the Yankee name. In any miscellaneous gathering of men, I saw nothing very remarkable in the physiognomy of the majority, and in travelling I found them as reticent and reserved as the average Englishman."

PRIDE IN ANIMALS.—We all know that dogs exhibit jealousy; and birds ruffle and plume themselves, as if they felt pride in good looks. But to believe that a cow can show real aristocratic pride, is almost impossible; and yet a writer in *Leslie's Monthly* tells the following: A gentleman traveling in England had a letter of introduction to a person of some distinction, whose whole estate was in excellent keeping. Among other fine animals shown him was a fine white cow, and this creature, he was told, was the very personification of pride. As though she considered herself of pure blue blood, she claimed precedence in all cases; she always went ahead of the herd, the best bit of pasture was her exclusive domain, on which no other durst intrude. So far did she carry her pretensions, that if any of the other cows entered the stable before her she would refuse to enter. Anxious to see this with his own eyes, he desired to be taken to her stable at evening. The man, instructed how to act, drove in some of the other cows. The white cow drew up; not only did she refuse to advance, in spite of all encouraging words, but her whole frame swelled with anger and offended dignity. She kept lowing continually. At last the cows within, as though conscious that they had forgotten their place, began to come out, and as they were driven out, the proud white, with an evident air of gratified pride, strode in in state. It it almost impossible to convey the impression produced by this exhibition of downright pride.

A SAN FRANCISCO LADY.—"Beth," in the *Woman's Journal*, describes a pattern San Francisco lady. A little lady who owns a $25,000 city lot, whereon stands her modest cottage home, came to see me. Knowing that she kept no servant, I inquired if she never feared burglars, as she left her home alone so much? "Why, no; what should burglars come for? I really have nothing worth their carrying off. Having anything valuable enough to be a constant anxiety I consider being too much of a servant to lower things." Her home is full of books and art treasures, but there is no silver plate to worry over. Much of her summer life has been spent upon the mountains. She is a fine botanist and geologist and conchologist and entomologist. A gentleman friend calls her "the high-stepping little woman who always reminds him of Dante." Another friend said that her step was so elastic that it seemed no more effort for her to walk than for a bird to fly. Living the higher life with nature, 40 years have left not a wrinkle upon her face, a face so divinely beautiful that one might readily say it had been only half that number of summers, and no winters at all.

WASHINGTON'S LIBRARY.—A Philadelphia letter says: The last volumes of the library of General George Washington were scattered to the winds by the last heir of the family, Lawrence Washington, at Thomas' auction room to-day. This young man, who was present at the sale, is a great-grandson of General Washington's brother, and son of the late John A. Washington. The books were stored in a room of a house belonging to the family, which was rented to a Pennsylvanian who promised that it should be kept constantly locked. When Mr. Washington examined the library, he found that volumes had disappeared, that the autographs had been clipped from others, and that there was danger that the whole collection would be scattered in a few years, and its authenticity destroyed. There was no doubt whatever of the authenticity of the volumes at this time. There was a large number of literary men, booksellers and private collectors present.

Science's Manias.

[Written for the PRESS by G. D. W.]

Among the recent scientific manias which are agitating the public mind, none are so derogatory to the old time honored customs and beliefs of our forefathers as that of "cremation," and worse, still worse, "euthanasia." Euthanasia is the name of a quick method of putting people to death. I will copy a few extracts from a late *Popular Science Monthly*. There are in England a small knot of thinkers who call themselves "The Speculative club." In 1871 they published a volume of seven essays, which were written with much ability, although clouded in the unintelligibility of much learning. The simple solution is unraveled in the sixth article, by Samuel D. Williams, entitled, "Eutbanasia," which, being interpreted, means an easy, quick or desirable death. Here are the propositions for the laws to govern their theories:

"In all cases of really hopeless and painful illness it should be the recognized duty of the medical attendant (whenever so desired by the patient) to administer chloroform or any other substitute, so as to destroy consciousness at once, and put the sufferer to a quick and painless death. All needful precautions being adopted to prevent any possible abuse of such duty."

He goes on to sustain his position by asking, "Why should a person about to be operated upon by a surgeon have a refuge opened to him, while another, about to suffer from the hands of nature the worst she can inflict, be left without help or the hope of help? Why should all this unnecessary suffering be endured? The patients desire death; their friends have done all in their power; they must submit to the inevitable. The medical attendant is at the bed-side, with all his knowledge and skill ready at hand, who could, were he permitted, bring to his patient immediate and permanent relief." The question is asked, "Why is he not allowed to do so? or, rather, why should not his doing so be recognized as a sovereign duty?"

Many pages are filled with the author's wild and seeming inconsistent theories, so untrue to nature. Alas! "Who by searching can find out God" and unveil the hidden things of nature? What physician, be he ever so gifted in the science and art of medicine and the diseases of the human frame, can tell what powerful, overruling principle actuates it, and at what moment the revelation of nature can so quickly undo all his most profound surmises. No! he can no more tell the time and hour of man's dissolution than he can tell the whys and wherefores of the mysterious machinery of the human frame in which the life power is acting. Although such fallacies cannot be ignored, it is to be hoped that they never will assume importance enough to call for serious consideration. I hold nothing so bad as a misrepresentation of truths, clouded in the misty shroud of science. A little truth is many times more dangerous than a "little learning."

The Carpet Anthrenus.

The *Anthreni* as a genus are well-known pests of museums of natural history the world over. There are numerous species, some half-dozen of which are found in this country, including the well-known *Anthrenus musæorum*, Linn., the great enemy of collectious of natural history, especially of stuffed birds, insects and other zoological specimens. But the *Anthrenus lepidus* of Leconte appears to frequent carpets and is particularly destructive to the former.

My first specimen came from Oregon. The next received came from Central New York, where this pest had received the name of "the California carpet moth," probably because some one had recognized it as the same insect which had been found infesting carpets in California, but it is not a moth, but a beetle, and like all the *Anthreni* belonging to the great order of *Coleoptera*, and to the family of *Dermistidæ*.

The larvæ of the *A. lepidus* are small hairy grubs, and change to pupæ within the larval skin, not casting off, as do some other kinds of beetles, the imago or perfect insect emerging from the pupa skin, passing out of the old cast-off shell of the larva at the same time. Any one who will take the trouble to collect a few of the larva, and put them into a glass bottle, with a few shreds of woolen cloth, can observe their transformations.—*Am. Jour. of Microscopy.*

POISONOUS VISITING CARDS.—Few ladies remember that they carry around poison in their card cases. But it is so and sometimes to the danger of children or thoughtless people of larger growth. The elegant and highly polished enamel on visiting cards is composed, in part, of poisonous mineral substances, and if eaten would produce serious sickness. The manufacture of this card paper is said to be exceedingly unhealthy, and we may well believe it. It would be, therefore, a kind thing to the workmen engaged in the manufacture of cards, and a safe thing for themselves and their children, if the ladies, who set the fashion to these things, would give up the use of enameled cards, and confine themselves to those of plain surface. These, we understand, are now decidedly the most fashionable, from what cause we know not, but the plain, brownish cards are considered the most stylish. It is gratifying to see fashions turned in the channels of common sense, of health and humanity, even though in a small matter. We hope that the knowledge of the dangerous character of these cards will not lead to their restoration to the feminine favor and to fashion, which is a very fickle thing; we mean, of course, the fashion; not the fair.—*Hall's Journal.*

Young Folks' Column.

"'77"

Ding, dong! Ding, dong!
SEVENTY-SIX will soon be gone;
SEVENTY-SEVEN's coming on,—
Ding, dong! Ding, dong!

Tell us, year, before you go,—
Ding, dong! Ding, dong!
Why at last you hurry so,
Though at first so very slow?
Ding, dong!
Can't you wait a little longer,
Till the baby-year gets stronger?
Ding, dong! Ding, dong!

Why can't years come back again,
Just the same as they have been?
Ding, dong! Ding, dong!
Big folks say 'twould never do,
None would live the past anew;
But I'd like it,—would n't you?
Ding, doug! Ding, dong!

Just the same? No, I must be
Better with each year, you see,
Old year! Don't you pity me?
Ding, dong! Ding, dong,
Ding!
—*St. Nicholas for January.*

"Read That Again, Jack."

Around in Chester alley lived Joe Hall. The world outside spoke well of him, and many envied "Joe Hall's luck," for his hands were always full of work, and his pockets always had a musical ring of silver about them. Joe had three children, two bright little girls, but Jimmie, his oldest child, was blind. He was a good father, a good husband, a good neighbor, a good workman, but yet he had one great fault; he would treat himself to a glass of gin after a hard day's word. It was a great benefit to him, he thought; if he was tired it rested him; it inclined to be lazy it stirred him up; if hot it cooled him; if cold, it heated him; if sick, it made him well; if well, it made him still better; so altogether it was a good thing. True, it sometimes made him a little sleepy, but he never took it except at night, and surely that was the time for a hard-working man to be sleepy. He had tried often to persuade his blind Jimmie to take a little, for he was very pale and delicate, but the boy said, "No, thank you sir," very firmly, and closed his lips very tightly, after he said it, so his father said no more.

In the same alley lived Jack Parson's father, and Jack and Jimmie were fast friends. One day a lady who was passing with tracts gave Jack a small book, as she found that he could read. When night came, and Jack could leave his wood sawing he ran up to Jimmie's room to read out of his new book. So down they sat by the fire, and Jack read in a low tone, but presently Joe Hall cried out:

"Eh, what's that? Read that again."

So Jack read louder:

"A gentleman declares that where he lives there is a dreadful worm which infests his country. It is of a dark color, and generally lives near a spring, and bites the unfortunate people who are in the habit of going there to drink. The symptoms of its bite are terrible. The eyes of the patient become red and fiery, the tongue swells to an immoderate size and obstructs utterance, and delirium of the most horrid character ensues."

"Whew!" exclaimed Joe Hall. "The Lord keep me out of that country forever. Read on, Jack, anything more?"

And Joe rested his glass on his knee, and leaned eagerly forward. Jack continued:

"This worm never touches the brute creation, but, strange to say, it seizes only man, and where it once leaves its poison, farewell to health, farewell to life!"

"Goodness alive, Jack, and don't it tell a fellow its name, so he may keep out of the thing's way?"

Jack's voice trembled a little, but he read on: "The name of this reptile is 'the worm of the still.'"

Joe set the tumbler down hard on the table, threw himself back in his chair, and went to thinking. The boys hushed—they knew that the long pipe that wound round and round in the distilleries through which the whisky ran was called the "worm," and as the truth of what they had been reading flashed upon them, they went to thinking, too. The silence lasted so long, and became so oppressive, that Jack crept out.

"Father," said blind Jimmie, putting out his thin hands, and feeling about till he touched Joe, "father, fling it away. It ain't got a tight grip yet, but oh—"

Jimmie could say no more; but sinking down he laid his head on his father's shoulder and burst into tears. Not a word did Joe utter; but Jimmie felt a tear strike his forehead, then another and another, and Jimmie knew that the reptile's coil was loosened, his power broken forever. So it was; for from that night Joe Hall drank no more.—*Mrs. M. J. Mallary, in the Young Reaper.*

Good Health.

Nervousness and How to Overcome It.

From an article on this subject in the *Herald of Health*, we make the following extracts:

The symptoms of nervousness are too many to mention, and vary in different subjects. The patient knows and feels he is ill, but cannot tell where or how. He becomes fretful and peevish and angry without a cause. He is easily startled, complains of irregular action of the heart, sleeps badly, and this loss of sleep spoils the next day's happiness. Resolution and courage fail, memory is impaired, he becomes tired and easily confused. He is subject to fits of melancholy, continually makes himself unhappy. He looks on the dark side, and seems to have no silver ray to line the clouds of life. If the nerves of motion become weakened the sufferer has little pleasure in either bodily or mental exertion. The appetite fails, becomes capricious, inconstant; the patient complains of a bad feeling, a pain in the head, flatulence, irregularity of bowels. Woe be to him now, if he flies to alcobol to stimulate his failing powers!

I shall not here enter into the symptoms of hysteria, so often the result of nervousness in both men and women.

Now, from whatever cause or combination of causes nervousness has been produced, if happiness and health are to be restored, the causes must be removed and the injury they have caused be repaired. For in proportion to the weakness of a man's system and the enfeeblement of his nerves, will be the liability of his falling a victim to other and more fatal maladies; and thus it is that every day we find such diseases as bronchitis, consumption, Bright's disease, brain disease, and insanity following at the heels of nervousness.

The indications for treatment are fourfold. First, we must remove the cause, restore the tone of the heart, improve the blood. All injurious habits must be given up; late hours and intemperance in eating abandoned; smoking, if practiced, stopped. This done, the patient is on the road to a cure, for nature is very kind when she has a chance, though she is dreadfully cruel when abused.

The food is most important. It must be abundant and wholesome—neither too much nor too little. It should not be sloppy, and soups had better be avoided so long as solid food can be taken. Rise from the table feeling you have had enough, but not oppressed with what you have eaten. Many a man has lived to old age by following this rule. The bread should be stale, and no very heating food taken.

Eight hours' sleep should be taken every night if possible. This alone will nearly cure. "Early to bed and early to rise," should be the motto. Sleep is the salvation of the nervous system. When there is strength, a cool bath, short and quick over, with much friction under a sheet, should be taken every morning, and a reaction secured. Without a reaction much harm results.

The exercise should be moderate and pleasant. Riding, driving, rowing, light physical labor, are all good. Breakfast early, dine at one or two, and sup two hours before going to bed; drink no tea.

Take no narcotics to make you sleep. A few raw oysters before bedtime are worth all the narcotics in the world, are easily digested, and furnish material for restoring nervous tissue and blood. If you wake up in the middle of the night, sometimes a small, stale biscuit eaten will send you off to sleep again.

A change of scene, air, and cheerful society, with sea-bathing, are excellent agents for curing nervousness.

Avoid physic—it exhausts the tone of the system, the very thing you would restore.

Above all, keep up a good heart, and a firm reliance on the great Author of life.

Antidote for Poison Oak.

J. H. Sherman, M. D., writes as follows: Some years ago Dr. W. F. Jackson published an antidote for bee stings, mosquito bites, and, I believe, for the bites of insects generally. The information has been of great service to me, for it always relieves. Aqua ammonia, applied to the part affected, is the remedy. To compensate for this and other valuable hints for practice gleaned from our journals, I wish to call the attention of the profession to a sure antidote to the effects of poisoning from *Rhus toxicodendron* or *R. radicans*.

The antidote is fluid extract of *Arstolochia Serpentaria* (Virginia snake root), applied by means of a large camel's hair pencil. If applied on the earliest manifestation of the poison it will arrest the symptoms at once. My first trial was with a lady patient on Newton street, Boston. She was a fair skinned, light complexioned, delicate woman. At my first visit her face was so swollen, blistered and mottled that her best friends could not have recognized her; so badly were the integuments of the eyes swollen, that she could not see. She had a high fever and much burning, smarting pain over the face and in the head. My prescription was Bell, and local application of a weak solution of the acetate of lead. The husband of the lady aroused me early on the following morning, saying that his wife had passed a sleepless night, and desired my presence immediately. I found her in great agony, and on further investigation it appeared that the disease had been aggravated by the lead work. The extract of Serpentaria was now applied, and with the effect of producing almost immediate relief, so that in a few minutes the patient was quite comfortable. On the following day the inflammation and swelling had diminished to a degree which was to me a matter of surprise, and in a few days desquamation took place and recovery was complete.

Since the above case was treated I have used the remedy in other cases and with like results.

Domestic Economy.

Recipes for Pumpkin Pies.

I. One pint of stewed pumpkin, four eggs, one quart of milk, one large cup of sugar, half a teaspoonful of ginger; when your pie is ready to go in the oven, grate a little nutmeg over the top of it; this quantity makes two pies.

II. Take a Boston or Hubbard squash, and cut, peel and remove seeds and pulp. Then cut in very small pieces, and wash with cold water in a colander. Stew in a porcelain lined, covered vessel, without water. Cook slowly; stir frequently, to avoid burning. When cooked, pass the squash through a colander to remove any lumps. To a quart of squash add a quart of milk, four eggs, teaspoonful of salt, six tablespoonfuls sugar; nutmeg, cinnamon and ginger to taste.

III. Boil a small pumpkin until soft; strain, and when cold, add a quart and one pint of milk, two cups of sugar, five eggs, level teaspoonful each of cinnamon and ginger, and a pinch of salt; for crust, three small cups of flour for three pies; one-half cup of shortening and salt; mix with cold water, and roll very thin.

IV. Mash very fine with hand one and a half cups of boiled pumpkin—using only the chunks of pumpkin, none of the water; then mix with that a heaping tablespoonful of flour, rubbed smooth with a little milk—one egg, three cups of milk, a teaspoonful and a half of lemon extract or ginger; salt, sugar to taste, and bake in a good sized pie plate with a good wall of crust built up around the plate. It is a good way to cook the pumpkin not to put any water into the pot. If set on the back part of the range the heat will draw out the juice of the vegetable; it will then steam done, and no straining will be necessary; only be careful not to let it burn. The above is the quantity for one pie.

V. Boil and mash half a pumpkin; strain off the water until quite dry; then add a pint and a half of milk, five eggs beaten light, half a pound of sugar, quarter of a pound of melted butter, half a pint of brandy and large tablespoonful of ground cinnamon; put in pastry crust, and bake as a pie. This quantity will make six pies.

BEANS WITHOUT PORK.—Some families seem not to know that baked beans are delicious without pork, if properly cooked and seasoned. Boil a pot of beans until they are cooked thoroughly soft, take half for one day's bean soup, and use the other half a few days later for baked beans. If the beans are old drop in a small lump or half teaspoonful of soda. When this water boils, turn it off, and supply its place with clean boiling water. After the beans have boiled in this an hour, we change the water again—sometimes three times, but never after the beans have begun to come to pieces. Set them where they will not boil too hard, and cook them four or five hours, when they are well softened and separated. Then we stir into this soup salt, and a cup of cream if we have it; if not, a tablespoonful or two of good butter. We take out half of the beans (if we have cooked enough for two meals) before seasoning the day's portion, and sometimes thin what is left for soup with hot water, and then put in the cream and salt, and boil and stir all together. When we bake the reserved portion, we pour it into a large baking dish or dripping pan, stir in a spoonful of salt and a cup of cream, or creamy milk, and bit of butter, and bake an hour. I cannot believe that any one who tries it would prefer "pork and beans" to this. The most common mistake in cooking beans is to cook them too little. This is the cause of their flatulent tendency, and such result may be prevented by thorough cooking. The frequent change of the water takes away the strong flavor which is disagreeable to many.

VIENNA COFFEE.—A lady who visited the Centennial, and tried the celebrated Viennese coffee, tried on her return home to make some for herself, and communicated her process to the Detroit *Tribune:* I leach the coffee, allowing to each person a tablespoonful of ground coffee, and one extra for the pot; then to one quart of cream, put into a pitcher and set in boiling water, I allow the white of one egg beaten to a froth; then I add three tablespoonfuls of cold milk to the egg, and mix it well; then remove the cream when hot from the fire, and add the egg, stirring it briskly for a few seconds; then serve. This gives a cup of coffee equal to that at the Vienna bakery.

GRAHAM BIRDSNEST PUDDING is made by laying in a deep dish nice quartered apples, and pouring over them a thin batter made of flour; one teacup of sour milk, and about one-third of a teaspoonful of soda. Bake in a moderate oven till the apples are thoroughly cooked.

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THE ORIGINAL ARTICLES in this paper are mostly set in solid type, giving in our columns one-third more reading than is contained in ordinary leaded matter.

ADDRESS all letters to the firm, and not to individual members, or others, who may at any time be absent from our office.

Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, December 30, 1876

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The Week.

Christmas has come and gone and left many pleasant memories. The observance of the day was general, and thousands of homes enclosed happy scenes. In the country we hear of Christmas gatherings, and the bright moonshine of Christmas eve and Christmas night lit the way for late returnings. In the city there was a wealth of evergreen decoration, and while the trade in other produce lagged, fir and cypress trees were active on the wharves with a decided upward tendency—toward the hillside homes of our citizens. The Christmas crosses and garlands of evergreen, dotted with the bright red berries of the laurel hawthorn, were visible everywhere, and we doubt not many a new comer from the East was disabused of the idea that evergreens are only beautiful upon a background of driven snows. What though on Christmas noon our thermometer marked 88 degrees among the roses in our dooryard, the warmth of the Christmas greeting was just as welcome as when we reached out for it through furs and comforters. We had a merry Christmas and we hope each reader had the same. And now the New Year—may it be a happy one to all.

Wheat has reached its first quarter in the third whirl of the dollars, and the trade is strong and confident. The prospect is most excellent for prices for the remainder of this and the next harvest. Though the present outlook for growth is dark there may yet be light behind it. At all events, let not shadows darken the home in the holidays. Let the happy gatherings continue, for the promise is sure.

The New Year.

Contradictory as the statement may appear, the outlook for the new year is clouded by cloudless skies. Although our concern is deep for our readers, whose industry seems now threatened by the denial of the skies, we would still urge against repining. A trustful confidence is more manly, and it will nerve the arm to better meet the contingencies which may arise. Difficulty is not best compassed by resignation; at least not until the difficulty becomes unsurmountable. A strong hand, a mind quick to think and brave to plan, oftentimes wins victories in the face of defeat, and by a molding of conditions achieves success where the despondent find naught but failure. The plain teaching of the situation is toward the rapid pushing of all promising measures for irrigation, and every acre which can be reached by flowing water should feel the refreshing flood. While massive schemes move too slowly to meet immediate wants, there are many little plans which individuals can prosecute, which, just at this crisis, promise the year's living if not a surplus. Let it be remembered that the reward for smaller weights of produce will be far greater than in a year of abundant rains. Let it be remembered that a single acre, if by artificial means it can be won to fruitfulness, will yield more money than five in years of general yielding. This fact must be the incentive to extra labor at this time. Let every rod of ground which can be made to yield do its share towards furnishing the year's food supply. Let the low places be thickly seeded to quickly growing fodder crops that the cattle may be supplied if the usual ranges fail. Let it be remembered that extra work will pay in many ways. We know well that the remarks which we have made are of somewhat limited application, and that many localities have no remedy at present but patient trust and waiting, and yet we would have the spirit of activity maintained, so that if failures come to any it will be because no deed of theirs could prevent it. In times of unusual occurrences it is well to learn lessons for the future, and so long as any deed promises well, by all means do it. We have written as though the relief which yet may come were permanently denied. Such is not our thought, for there is yet a bright line in the outlook, and the rains may come in season to give us the promised seedtime and harvest.

Thoughts for the New Year have by common consent become thoughts of improvement. The old "new leaf" is ever turned at this season, and although it fly back, we never heard that any was the worse for the attempt to turn it. We believe that in resolving, the rule is the same as in loving: it is better to have resolved and failed than never to have resolved at all; because an earnest resolution towards better thoughts and life is an indication that there is in the mind something which recognizes and approves the right. Therefore, let the resolutions be framed in every mind, and while strength remains maintain them.

We are pleased to note that the year which now passes into history has made a good work in our agricultural progress. Next week we expect to present the fruit figures of our material growth, for then the days of '76 will all be numbered. But there are notable general conclusions to be drawn from the deeds of the year. One is the tendency which has prevailed toward a diversification of farm products, by which the different regions of the State will ultimately become self-sustaining, and the expensive carriage of products will be done away with. Actual results this year have shown that our soil possesses capabilities far greater than were at first attributed to it. Instead of being land for single crops, it has been shown to surpass in several. Fruits and vegetables have been brought upon home markets and relieved consumers from the burden of miles of transportation. More than this, farmers who have heretofore been in the market for various food supplies are now discovering that they can produce cheaper than they can purchase. Thus our farmers are becoming more and more self-reliant and independent, and livings are being wrested from a few acres which formerly yielded but a pittance to the large grain grower or stock raiser. The way in which this problem is being solved in some of the southern counties of our State is one of the hopeful signs in the year's progress in farm economies.

We have made new marks during the year in the development of new lines of agricultural production, and in opening Eastern markets for our produce. Although these have not as yet been attended by the largest rewards, they have succeeded admirably as pioneer efforts and show bright promise. The enterprise which is shown by our farmers in all efforts to realize better results from their soil by wiser production and more skillful marketing, will, we doubt not, ultimately greatly advance the agricultural interest of our State, and bestow upon our farmers increased prosperity.

For the months which are to come we wish our readers new joys, comforts and successes, and that to all a "Happy New Year" may be a fact of full realization, we most sincerely desire.

ON FILE.—"Jerusalem Artichoke;" "Hop Growing in Sacramento," D. F.; "Large Talk in Agriculture," S. W.; "Our Grandfathers," M. E. T.; Visits of the Worthy Lecturer; Inquiries: "Ramie;" "Canary Seed;" "Wax."

The "Rural Press" for 1877.

With strength, confidence and trust the RURAL PRESS will enter upon the labors of the coming year. It will be the first year of the second century of the Republic. The indications are throughout the country that the years of depression are at an end, and that brighter days are dawning. It is believed that the Centennial resting and sight-seeing will mark the close of the era of the recovery from war curses, and that the clouded industries of the country will shine forth anew in a real and substantial prosperity. The year 1877 will be a year of work and of fit rewards for the toil.

The RURAL PRESS enters upon the work of such a year with renewed energy and in possession of the advantages which our work hitherto has gained for us. We shall give our journal a brighter face by means of a complete new outfit of type and other mechanical appliances. We have also in view improvements in our engraving department which will enable us to increase and improve our presentation of original themes in illustrations. In paper, press-work and all the matters which go to make up the mechanical appearance of the PRESS, the future shall surpass the past.

In the editorial conduct of the RURAL PRESS we shall labor with full enthusiasm and with untiring energy. We are full of belief in the principles and progress which we advocate. It is our ambition that every column of our paper shall contain something in thought or fact which our patrons will find of real value to them. Our work is done with the greatest care and watchfulness and with a full eye upon all sources whence light can come upon the industry in the promotion of which we are engaged. This policy is expensive, because of the labor which it demands. It would be far easier to fling together a weekly issue of the trash which rises uppermost in daily doings, and inflict it upon readers, but such a sheet would not answer our ideal. We search for that which is good and useful, and which has in it the quality of true success and progress, and nothing short of this standard is accepted. Upon this method of our work we believe we are gaining the success which is now attending our effort. Testimonials are abundant in letters from our readers that the RURAL PRESS has been greatly improved during the last year. The fact is gratifying and encouraging to us, but nothing which has been done shall be the limit of what we trust to do in the future. As the agriculture of our State advances we nerve our arm to better reflect it.

We take pride in our work for the good which we aim to accomplish. It is noble to labor in the cause of industrial progress and to think that the RURAL PRESS is an agency from which earnest men and women can draw aids for their undertakings, and strength for their lives and hearts. We believe that labors such as we undertake are for the benefit of the community and result in far more general good than the most labored treatises issued in the interest of corporations and political parties. On the farm and in the home we find nobler themes than in the street and in the arenas. In these features of our work we feel that we have the full sympathies and approbation of our readers, and we believe that they may feel satisfaction in having contributed to build up a journal in which the truest interests of our coast receive fitting recognition.

Aside from these general considerations we have at this time special words to speak. While the clouds refuse the rain there is a feeling of lack and distrust prevailing. Although an unfavorable season is by no means to be feared yet, because the remedy may come speedily, we beg our readers not to allow any present unfavorable outlook to prevent their renewing any subscriptions which may expire with the year. There can be no doubt that if the season should disclose hardships the RURAL would be more than ever a friend and wise adviser. A man who labors in the face of disadvantage labors a thousand times as effectually if he have the aid of a thousand experiences to supplement his own. It shall be more than ever our task to furnish information which shall be valuable to those who struggle in the face of adverse conditions. If readers are in trouble they will find the RURAL more than ever a true friend.

With the new year we should have at least 5,000 names added to our list, and each one of this number will aid us in the further improvement of our journal. A true newspaper is a great co-operative concern in which all readers are stockholders, and the more stockholders we have the more we can spend in pushing our paper forward in qualities of excellence and usefulness. Will not all our friends aid us to this end? We are indebted to them for many favors both to us and to our agents, and all these are appreciated. We ask a continuance of these valuable aids to our success, and look upon those who grant them as co-laborers with us for the good at which we aim.

While we ask substantial favors we do not less value the great assistance which our readers render us by their descriptive correspondence and communication of practical experience. It is by drawing near to our readers that we are able to interest them and minister to their needs. This they enable us to do by the frequency of their letters. We prize these favors highly and award them their full share of praise for the success and usefulness which our journal encompasses. We would have these contributions continued and increased. We ask all who have thought or fact which are pertinent to our work to give them freely. Thus again we may labor together and the result will be mutual advancement.

In conclusion, dear friends, give us new names and a renewal of old ones; give us new facts and valuable experiences; give us your hearty co-operation and approbation and the new year of the RURAL PRESS shall serve you more wisely and ably and just as truly as the years which have gone.

California and the Southern States.

Hon. John R. Dodge, Commissioner of Statistics of the Department at Washington, is one of the most earnest promoters of progressive agriculture in this country. He more than any other has demonstrated the wisdom of applying exact methods of computation and induction to the conduct of the farm. In a recent address before the National Agricultural Congress at Philadelphia, Mr. Dodge expounded the "Uses of Agricultural Statistics," and at some future time we expect to present some of his conclusions At present we wish to quote a paragraph concerning the difference between the industrial condition of California and the Southern States, for the purpose of pointing a moral therewith. Mr. Dodge said:

"Statistics have thoroughly exploded the idea of abject inter-dependence, by which one section was to grow nothing but cotton, another corn exclusively, and a third only pumpkins and potatoes, while an army of transporters with a legion of traders should eat and drink up and wear out agricultural production *in transitu*, and so promote good fellowship and illustrate the freedom and thriftiness of trade and the long suffering of the producer.

"The South has taken one side of this question; California the other. The South is old, California is young; but the census estimates of rural earnings per man is $266 for the land of cotton and $1,042 for the land of gold. Of this $266, cotton in 1869 yielded $118 to each man engaged in agriculture in the cotton States. The occidental shore was far away, beyond a high and rocky barrier, and self-possession compelled self-feeding; the large proportion of workers engaged in mining created profitable markets, and ambitious thrift demanded further production for exportation, which became a surplus for saving, not a fund to be transformed into "hog and hominy" and eaten in advance! Instead of expected semi-starvation while flour was floating around the Horn, five times the requisite home supply can be shipped to the starving of Europe; wines are forwarded by car loads to New York, are there slightly modified to imitate the color and flavor of foreign vintages, and sold at a marvelous advance under European names; and fruits and wool and other exports increase the hoard of the husbandman of the Pacific coast.

California has imported little, except to satisfy the lavish extravagance of the rich, and has sent much of her rural production abroad. She has sought out and utilized her resources more actively and perseveringly than any other State, and has illustrated strikingly the benefits of a practical union of the several productive industries. The South, on the contrary, with every variety of soil and climate, has discouraged variety in agricultural production, neglected ores like those of Pennsylvania, coals equal to the beds of Ohio, water-power unsurpassed in New England. She has spurned the lavished gifts of God and the skill and labor of man, while courting the selfish advances of foreign trade, and hopelessly seeking riches by swapping cotton for everything spontaneously produced by nature or laboriously wrought by human skill. Had her skies been less genial, her clouds less wonderfully propitious and her soil a little unkind, famine and bankruptcy would have long since claimed a country wedded to a false system of economy and rural practice.

"There are signs that a new day is dawning; with self-dependence, home markets, more labor better directed, and profitable use found for every mineral, tree and plant, as well as every human capacity, a new El Dorado will appear to compete with the golden West!"

We are glad of the assurance given by Mr. Dodge that the South is learning to develop her many resources, and we welcome her to a generous rivalry for success. But while we have by chance been wise in the past, let us be still wiser in the future. Let us reduce our State independence to individual independence of production, and, wherever it is possible, produce food supplies at points nearest to the table where they are consumed. Until we stop shipping food supplies from the city to the country, where they can just as well and twice as cheaply be produced, we shall not have independent farmers, nor shall we produce much surplus value, except that which falls into the hands of the transportation companies and commission merchants.

The Coffee Tree.

We write, not of the so-called "California coffee," which still lingers in Prof. Hilgard's alembic, but of efforts which are making with a view to the introduction of the orthodox coffee tree from coffee-growing countries. We know of several parties who are now experimenting in this line. One of them is a leading fruit grower of Alameda county, who has lately received a sack of prime seed from the Sandwich Islands, ane who will test coff e as an adjunct to his orcharding. Another experimenter in this line is R. J. Trumbull, of this city, who has succeeded in the growth of the young trees, and has brought us one in a flower-pot, from which we shall endeavor to produco something for our coffee-pot. When Mr. Trumbull was negotiating for the seed in the Sandwich Islands he secured correspondence from experienced growers concerning the conditions which are favorable to the growth of the tree, and we are pleased to present our readers the following interesting statements, which are taken from a letter from Thos. E. Cook, a resident upon the Islands. He writes:

Having resided some time in the coffee region in Kona, on the island of Hawaii, and snbsequently engaged in the culture myself, as part proprietor of a coffee plantation, I can give you all information necessary to its cultivation. When parties here first engaged in the business some 30 years ago, they cleared their land of all other trees. The coffee grew and bore well for a year or two, and then the trees commenced to droop, the leaves turned yellow, the berry grew small and of an inferior quality and there was not enough of it to be work picking. By chance, some seed got scattered in the woods, and among groves of other trees, when it was observed that

Growing Under the Shade of Other Trees

It invariably grew rapidly and bore heavy crops, the berry being well developed and of a fine flavor. This discovery was only made some five or six years since. Acting on this hint, the natives, when I was in Kona some four years ago, were again going extensively into coffee planting. Having occasion to make frequent journeys from Kealakekua to the volcano and Hilo, I had an excellent chance to observe the whole thing. On one hand were the failures of former years, and on the other was success with the coffee growing in the shade, thrifty and loaded with a heavy crop.

They merely clear away the underbrush, and in some cases where shade overhead is very dense, cut away a few branches to let in an

Occasional Gleam of Sunlight;

In short, plant under the shade of other trees, or on the north side of other trees, so as to break the force of the direct rays of the sun. The plantation that I was interested in was a fair illustration. Ten thousand trees had been planted, and not over 1,000 of them were of any use, the rest were either dead or worthless.

If trees are wanted for ornament, let them grow. They form a very nice, symmetrical top; but if for profit, cut the top at about six feet high. That is not generally practiced here among the natives, but it will increase the yield and bring the crop within easy reach.

In California

I am quite confident that coffee will do well if my suggestions are followed, anywhere in the shady foothills and narrow ravines and gullies of the Sacramento river and its tributaries. It is a mistake to suppose that it requires a *hot* climate. It will thrive under the broad-spreading post oaks of your valleys, and all about and under your apple and orange trees, and all other trees. You make your land do double duty, and the shade protects from both sun and frost. I have seen it growing thriftily and bearing well on the high plateau of Waimea, on Hawaii, 2,750 feet above sea level, exposed to strong winds from perpetual snow in plain sight, and where they frequently have frosts. Plant in the shade, eight feet apart. I am confident it will do well in almost any part of California. The tree bears in three years, gives a full crop in five years, and lasts 30 years.

The Field for Coffee Culture.

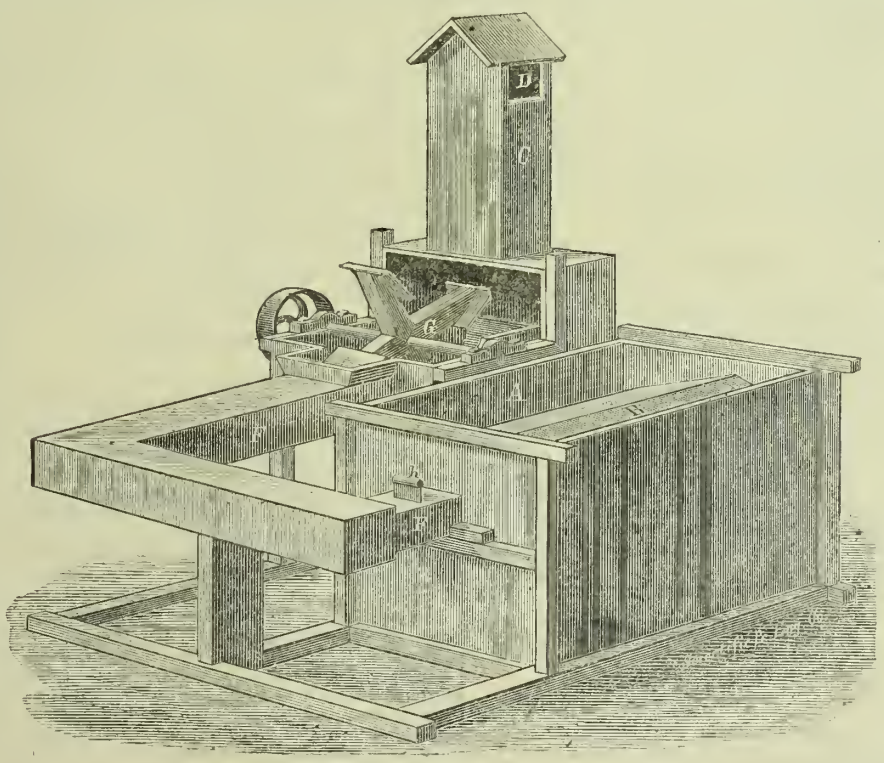
The foregoing notes of Mr. Cook are well worth attention, and it would be well to try the tree for the chances which there may be in it. There is certainly a good field for the production of coffee if we can grow good flavored berries. The coffee crop of the world in 1874 is estimated at 900,000,000 pounds, of which the United States imported, in 1875, over one-third, or 317,970,665 pounds. The import consumption, per inhabitant, of coffee, in 1856, was 8.21 pound; in 1875, 7.11 pounds, a decrease of 13 per cent. The import consumption, per inhabitant, of tea, in 1856, was .93 pounds; in 1875, 1.43 pounds, an increase of 54 per cent. The explanation is not that the Americans like coffee less, but that tea is as low as it was before the war while coffee is nearly double the price. The fact is that the production of coffee is not keeping pace with the demand. We commend the subject to the attention of our readers who have lands located for the experiment.

The recent gale on the coast of Scotland caused a loss of about 120 vessels and 250 lives.

Flour Cooling Attachment to Grist Mills.

The invention illustrated on this page is designed to facilitate the bolting of flour and prevent the meshes of the cloth from becoming clogged, thus obtaining better results with less bolting surface and also preventing the bolt chest from sweating. These several advantages are accomplished by the inventors—Hurd & Simpson, of Redwood City—by the simple introduction of one or more currents of fresh air into the flour bolt in which the flour is bolted, so that the flour as it is agitated by the rotation of the bolt will be subject to the cooling effects of the current of air.

In the engraving, *A* represents the bolt chest and *B* the bolt of a grist mill. In order to cool the flour, a current of air is directed either into the bolt itself or into the bolt chest. In this instance a stack or flue, *C*, is represented, which projects upward through the roof of the mill and in which suitable openings, *D*, are made to admit air. This flue is then connected with the bolt or bolt chest by a pipe or tube, *F*. At some suitable point in the length of the pipe is placed a blower, *G*, which will draw air through the openings in the flue and force it in a current through the tube into the bolt or bolt chest. The inventors profess, as represented in the engraving, to force the air into the bolt so that the flour as it is agitated by the rotation of the bolt will be subjected to the cooling effects. This arrangement also gives a better result in keeping the bolt chest and bolt cloth cool, at the same time thoroughly agitating the flour and forcing it through the meshes of the



FLOUR COOLING ATTACHMENT TO GRIST MILLS.

cloth, so that it cannot pack or collect on the cloth. It also prevents the flour from sweating and clogging the interstices of the bolt cloth or sweating in the bolt chest, so that better results are produced with less bolting surface than is ordinarily used.

The blower is driven by a belt connection with the running gear of the mill. One or more dampers, *h*, can be used in the length of the pipe to regulate the supply of air. Branch pipes could also be applied to lead a part of the air to other bolts or bolt chests.

A very material advantage in using this invention is that no additional machinery is required except the blowers and air pipe, which become a stationary part of the mill. This patent was procured through the Mining and Scientific Press Patent Agency, and the inventors, having had considerable and extended experience in the practical working of the invention, have confidence in recommending it to the milling public. The invention is really a useful one, as it overcomes a difficulty which millers have long attempted to obviate. Those desiring further information may address "Flour and Bolt Cooler company," 115 Mission street, this city.

A Rare Flower.—We received a call last week from W. A. T. Stratton, of Petaluma, well known to our readers as an interesting writer on arboriculture and floriculture. Mr. S. brought us a rare plant which he imported from England under the impression that it was the squill plant (*Scilla*), but he found, from one which blossomed, that it does not answer the description, and thus far he has not been able to determine what it is. He brought several specimens to the city and exhibited them to several florists and botanists, but they would not name it. It is a very interesting plant, growing on the *Scilla* model. Mr S. promises to send us the next blossom he has, in order that we may push the investigation for the true name.

Fruit Eastward by Slow Freight.

The shipment of California fruit to the East by slow freight and in ordinary cars has been somewhat overshadowed in the public attention this year by the fast freight refrigerator experiments. The quick transit was well calculated to win the popular interest and the Centennial was the objective point. It appears, however, that the old style of shipment has proceeded and scored a good advance over former years. A writer for the *Bulletin* has sought the figures and features of this year's trade, and they are very interesting: "Few are aware of the difficulties which have attended the cultivation of this trade, and which still environ it, or the extent to which the business has been carried. The press has from time to time given some information on the subject, but anything like a complete review of the trade is yet to be written. Those who have been engaged in building up the business of shipping ripe fruit to the East ever since the opening of the railroad, and who have lost thousands of dollars on some of their ventures, naturally feel grieved at the little notice which has been taken of their efforts to find a market for our surplus crops. Recently, the practice of shipping fruit in refrigerator cars has claimed some attention in the press, and the notion has obtained that the former are much superior to the latter. Old time shippers, however, generally set their face against the invention, claiming that for such fruit as can be profitably sent to the East, the ordinary car is quite as good, if not better, while the expense is less, as it does away with ice and the freight on the same. Grapes will doubtless carry better in ice cars, but it is said they do keep so well nor so long after being landed, as the change of temperature is too great for them. The same is true of berries, peaches and apricots. Plums and pears are carried easily in ordinary cars, and there is therefore no need of buying and freighting ice to accompany them. Usually the only fruits that will pay to ship East are those which can be sent at a season so as not to come in competition with similar crops in the Atlantic States. Any kind of fruit that we can get on Eastern markets first, or after the crops there have disappeared, can be sent forward with some assurance of remunerating the shipper. Thus far, pears, plums and grapes have been the most profitable shipments. Early pears, however, do not generally pay and hence only a limited quantity of Bartletts has been shipped, and these as fast freight. Those which ripen later in the season reach the Eastern market just after the bulk of the crop of similar varieties there has disappeared, and hence find appreciative buyers. But for the partial failure of the pear crop in the Atlantic States last summer, the shipments from California would have netted heavy losses to the shippers, as there are now about 14 000 boxes in New York cellars. Considerable has been said about the few carloads of fruit shipped in refrigerator cars during the past season, while comparatively nothing has been said about the hundreds of carloads sent by ordinary cars. One firm in this city has alone sent 105 carloads of plums and pears to the East from San Jose since the first of August. Another firm in Sacramento has done nearly an equally large business, while others there and at Marysville have made numerous shipments. Nearly all this fruit went forward as slow freight. The transportation charges are $1,175 per car for fast freight to New York, and $900 to Chicago, while slow freight is taken at $675 per car to New York and $500 to Chicago. The shipments are usually commenced in July from Sacramento and Marysville, and are continued until nearly the close of the year, though the quantity sent after the first of December is not large. The crops in the Santa Clara valley begin to move forward in the latter part of August, and the bulk of the shipments from that section is made in September and October. Nearly all the fruit sent forward is credited in the railroad returns to either Sacramento, Marysville or San Jose. The figures for the past season to December 1st, are as follows:

1876.	Sacramento.	Marysville.	San Jose.
July, lbs	364,000	140 000	.....
August	713 000	100,000	460,000
September	1,473,000	141,000	1,144,000
October	378,400	60,100	1,441,000
November	24,200	19,900	320,000
Totals	2,852,600	461,000	3,365,000

There was also 283,400 pounds of mixed fruits and vegetables shipped from Sacramento in July, but as we have no means of separating the quantities of each, the whole is omitted. A car is supposed to carry 10 tons fruit, equal to 20,000 pounds gross weight, which includes packages. There were, therefore, 334 cars employed to carry the above fruit across the continent, as follows:

From Sacramento, cars	143
From Marysville	23
From San Jose	168
Total	334
Same time in 1875	150

Last year only one carload was shipped from Sacramento in July. The actual shipments for that season to December 1st were as follows:

Sacramento, lbs	1,164,500
Marysville	81,900
San Jose	1,722,100
San Francisco	21,600
Total, lbs	2,990,100

Equal to 150 carloads. The crop for 1875, it will be remembered, was a partial failure in this State, or the quantity shipped would probably have been larger. The shipments this year show an increase of over 100 per cent. Probably the two heaviest shippers during the past season are Lusk & Co., of this city, and M. T. Brewer & Co., of Sacramento. The former firm have shipped 30 carloads to New York, 20 carloads to Philadelphia, 5 carloads to Baltimore, 1 carload to Washington, 20 carloads to Chicago, 20 carloads to St. Louis, and about 10 carloads to Pittsburg and other points. Out of the 334 carloads shipped during the past season, it estimated that not over 34 carloads went through as fast freight, while of the slow freight, fully one-half went east of Chicago. A rough estimate of the freight paid on this fruit may be given in round figures at $211,500. Efforts are now being made to further extend this trade next season. If the refrigerator cars fulfill the expectations of those concerned in the enterprise, they will prove a valuable auxiliary in placing the more perishable fruits in the Eastern markets at a profit to the raisers, but so long as the hardier fruits can be shipped as slow freight by the ordinary cars, it is not likely that any change will be made in the method of sending them to market.

New Publications.

The Annual Report of the Department of Agriculture is just received. It is one of the very best of the series and Commissioner Watts and his assistants may pride themselves upon it. The pages are largely devoted to a record of the condition of agriculture at the close of the first century of the republic, and for this reason will possess a lasting value. The volume is beautifully adorned with diagrams and maps. One article, which strikes us as altogether admirable, is a detailed description of the forest resources of the whole country. Each county is fully described and the tree growths noted. Other articles are also notably good.

James Vick issues his "Floral Guide for 1877." It is possessed of those qualities of freshness and originality which mark Mr. Vick's publications, and in addition to its value as a catalogue, it has the value of a practical treatise upon flower growing. One of the most valuable papers in the pamphlet is a detailed description of the insects which are injurious to plants and the remedies therefor. Mr. Vick offers a prize of $40 to each State agricultural society, to be striven for by flower growers at the State fairs. We trust our State society will avail itself of Mr. Vick's offer. The "Floral Guide" may be had for 25 cents by addressing James Vick, Rochester N. Y.

We are in receipt of a copy of the "Annual Register of Rural Affairs" for 1877, published at Albany, N. Y., by Luther Tucker & Son, and mailed to any address for the nominal sum of 30 cents. It is the oldest (and now the only) publication of the kind, and contains 150 pages of practical matter, interesting to every resident in the country, illustrated with no less than 140 beautiful engravings, almost all original. We notice particularly a capital article on "Practical Ventilation," which discusses this all-important topic in a clear and at the same time scientific manner, giving fully illustrated descriptions of all the improved systems. Elaborate almanac pages are prefixed.

The President has sent to the Senate the correspondence between the United States and Great Britain on the subject of extradition. The treaty has been restored to vitality by the act of Great Britain receding from its former position, and the surrender of Brent, the forger. The correspondence is regarded by the Senate as confidential at present.

Sheep and Wool.

The Chemistry of Sheep-Feeding.

This subject received a good deal of attention at a meeting of the German National Philosophers held at Graz. Dr. Kellner described an investigation on the effect of shearing upon nutrition. Two sheep were maintained for some time on food of the same kind, both before and after shearing. After shearing the appetite of the animals increased, but repeated analyses of the fæces showed no alteration in the proportion of the food digested. The amount of water consumed diminished after shearing, showing that less was now required for perspiration. The quantity of nitrogen daily voided in the urine had at the same time somewhat increased. As the amount thus voided depends, if the diet continues uniform, on the extent of the oxidation going on in the animal body, we conclude that this was somewhat greater, and that consequently the amount of flesh formed in the system was somewhat less, in the case of the shorn sheep, for the same quantity of food consumed. The author concludes that the beneficial effect which shearing has on the growth of the animal is really to be ascribed to the increased appetite which follows the operation, and not to a more economical use of the food consumed.

The next experiments, made with the same sheep, were on the effect of small additions of arsenic to the diet. Arsenic has for a long time had the reputation of conducing to fattening, and of improving the general appearance of an animal. The sheep in this experiment were kept on the same diet as before, small doses of arsenious acid being added. The result of this treatment was an increase in live weight. Analysis of the excrement showed that the food was now digested more thoroughly than formerly, 67 28 per cent of the total organic matter being assimilated, in place of 63.69 per cent. before the addition of the arsenic. The increase in digestibility extended to all the ingredients of the food, but was chiefly marked in the case of the woody fiber, of which 62.05 per cent. was now digested in place of 55.43 per cent. in the preceding trials. The amount of nitrogen in the urine also fell, showing a diminished oxidation in the system, and a greater storing up of the food consumed. The experiment was too short to determine whether these results could be permanently maintained, and we need hardly add that no amount of favorable results should induce a farmer to employ so dangerous a substance.

A report of experiments by Dr. E. Wolff, of Hohenheim, contained a summary of the results of 109 feeding tests of sheep, made to ascertain the extent of the decrease in the digestibility of hay, produced by the addition of roots or potatoes to the diet. If sheep are fed for some time on a diet of hay, and the proportion of albuminoids digested carefully ascertained, it is found that the addition of starch or sugar to the diet, but especially the former, decreases the amount of albuminoids digested. If the quantity of starch added is not more than 10 per cent. of the dry matter of the hay very little effect is produced, but with larger additions the decrease in the digestibility of the albuminoids may become very considerable, and especially great if the hay is poor in these constituents. By the addition of starch, not only is the proportion of albuminoids digested diminished, but the proportion of woody fiber digested is also affected, though to a smaller extent. With pigs, starch must be given in very large quantities to produce any similar effect. Potatoes act in the same way by virtue of the starch which they abundantly contain; the action of mangels, sugar beets and turnips is similar, but less marked.

In the calculations made by Wolff, it is assumed that the whole of the roots and potatoes consumed by the sheep was entirely digested, and that all undigested matter belonged to the hay. This assumption, though perhaps unavoidable in the present state of our knowledge, can scarcely be absolutely true, and the figures representing the digestibility of the hay must therefore be taken as somewhat too low. The following table shows the average proportion of total organic matter and albuminoids of the hay digested by the sheep, when eaten with roots or potatoes, for 100 digested when hay was used alone:

Consilfuents of Hay Digested, when given with Roots, Etc., for 100 Digested when Used Alone.

Dry roots and potatoes to 100 of dry hay.	Total organic mat. of hay digested.		Albumtnoids of hay digested.	
	Roots.	Potatoes.	Roots.	Potatoes
12—18	97.0	95.6	96.0	92.7
22—35	94.1	92.5	92.9	85.1
41—54	90.7	82.9	88.1	72.2
64—95	88.3	82.5	77.7	59.8

The larger the quantity of roots or potatoes employed, the greater is seen to be the decrease in the digestibility of the hay. It appears also that the extent of the "digestive depression" is far larger in the case of potatoes than of roots; indeed, if we look at the albuminoids, the depression produced by the potatoes is about twice as great as that given by the same quantity of dry matter supplied as roots. Prof. Wolff believes that the less nitrogenous is the diet, the greater is the digestive depression produced by potatoes and roots, and that an addition of nitrogenous food, as oilcake, counteracts the effects here described.

Experiments were also made to ascertain the effects of fat on the digestion of the other constituents of the food. These experiments were conducted by Drs. Wolff, Funke and Kreuzhage. The earlier investigations made on this subject had furnished very discordant results, some showing an increase in the proportion of albuminoids and woody fiber digested when fat had been added to the food, while others represented fat as exercising an unfavorable influence on digestion. The earlier trials had been made by the addition of rape or linseed oil to the food. This cannot be done to any considerable extent without injuring the appetite of the animal. The authors resolved, therefore, to employ ordinary foods rich in fat, and selected linseed and palm-kernel meal. The sheep were first fed on good meadow hay, and the proportion digested of each constituent of food ascertained. It was intended to add to this diet first a known amount of linseed meal deprived of oil, and then to substitute for a part or the whole of this linseed with the oil unremoved. By proceeding in this way, the amount and character of the albuminoids, fiber, etc., supplied daily to the animal would remain constant, and only the proportion of fat varied.

In the same way a series of trials was proposed with two palm-kernel meals, one nearly deprived of fat, the other containing abundance of that ingredient. These excellently designed experiments were not perfectly carried out; the two palm-kernel meals proved on analysis to be from kernels of different quality, and thus could not be accurately substituted for each other; the linseed meal free from oil was also not procurable, and bean meal had to be used in its stead. The results of the trials with bean meal and linseed were that the digestibility of the albuminoids appeared to increase slightly with rising quantities of oil, the digestion of the other ingredients of the food being apparently little affected. In the experiments with palm-kernel meal the result as to the albuminoids was in a contrary direction, this, however, was probably owing to the inferior character of the meal richest in oil. When the quantity of oleaginous food exceeded a certain point the experiments were stopped by the setting in of diarrhea. More successful experiments on this point are still to be desired.

The results at present obtained in these most interesting inquiries may be summed up by saying that the addition of albuminoids, or of fat, or foods rich in these bodies, to the diet of a ruminating animal, appears to have no prejudical influence on the digestion of the hay or straw which forms the bulk of its vegetable food, except the supply of such concentrated food (as oilcake) is pushed so far as to produce diarrhea. But, on the other hand, the addition of any considerable amount of roots or potatoes, and especially the latter, to a diet of hay does diminish the digestibility of the albuminoids and fiber of the latter; this may be, to a considerable extent, remedied by the addition of the oilcake or bean meal.—*New York Tribune.*

Arboriculture.

Currant Trees.

A gardener writes to the London *Journal of Horticulture* of the advantage of growing currants as standard trees instead of bushes. He says:

The system of grafting which is adopted on the continent and in America is not necessary in growing standard currants in England. Given vigorous stocks, time is no doubt saved by grafting, but really the growing of cuttings into miniature trees is by no means a slow process.

Standard red currants are both ornamental and profitable, and the fruit on them is never attacked by birds so persistently as is fruit growing on bushes. I have grown standards for a number of years, and have found them of the greatest value. They take up but little room, are exceedingly fruitful, and unquestionably add to the attractiveness of the garden. The fruit on standards generally ripens before that on bushes, and it also keeps longer. If it is desired to preserve the fruit as long as possible it is easy to place round each separate head a guard of netting. This, however, is not necessary until the fruit from the bushes has been gathered, for the birds will not attack the exposed standard trees so long as any hidden fruit remains on the bushes which they can eat in comparative peace and quietness.

I commenced the growing of standard currant trees on the score of economy and to save garden ground. My kitchen-garden space was limited, and the demand for currants could not be met. I could not afford to devote another quarter of the garden to bush fruit, as scarcity in another form—the vegetable supply—would have followed. I therefore raised standards, and planted some at intervals among the bushes, planting a standard between every third and fourth bush in every third row. The heads of these were formed well above the bushes, and, as anticipated, the bushes produced as freely as ever, and a large supply in addition was given by the standards above them.

I also planted standards on the wall borders near to the edge next the walks. The trees were planted 18 inches from the walk, and 15 feet from tree to tree. The stems were 3½ feet high, and the heads were formed from two to three feet in diameter. It was surprising the quantity of fine fruit that was produced by these standards, and with no appreciable loss of ground. True, a root or two of early potatoes were sacrificed in one part of the border, and a few lettuces in another; but these trifling losses were not felt, while the crops of currants were a substantial gain. The miniature trees also added much to the ornamentation of the garden, and were generally admired for their appearance.

The trees I raised from cuttings. In the ordinary manner of raising trees from cuttings, short-jointed, medium-sized shoots are selected, cutting out the lower eyes and shortening the tops of the cuttings to the required hight, leaving three or four buds on the top of each. In raising standards I found another plan, quicker and better. I selected the most robust shoots, carefully removing all the base buds, but not shortening the cuttings, leaving the terminal bud of each untouched. These cuttings were often three feet long to begin with, and when carefully planted in a north border they invariably rooted and did well. They were put in in the autumn, and in the following summer made little growth, but in the season following they grew more than the required hight, and were shortened accordingly at the winter's pruning and the heads formed.

I found, however, that a season was gained by grafting roots on to the cuttings. A piece of bushy fibrous root was dug up and its thick end cut into the shape of a wedge; this was inserted into an upward slit made near the lower end of the cutting and secured with a piece of matting. When this was neatly and quickly done, and the cutting with its new root planted without any delay, thus avoiding drying, I rarely knew a failure to occur, and the cuttings so grafted grew to the required hight the first season.

Standard currants, of course, require stakes to support them. It is important that these be sound and firm, and the ligatures must also be strong. The stakes must be placed close up to the heads, or during a rough wind the head of the tree may be broken off near the topmost ligature. Especially to those having small gardens, and who desire them to be as profitable as possible and also attractive, I recommend that they grow currants as standards along the sides of the walks. These trees will yield a valuable supply of fruit without taking up much ground, and they will also impart a pleasing appearance to the garden.

The Phenomena of Digestion.

Just now medical men in Paris, says the London *Telegraph*, are busy discussing a curious case which has come under the observation of the learned Dr. Verneuil. The doctor had a lad brought to him for treatment at the Hospital de la Pitie, who had swallowed by accident a dose of caustic potash. The terrible escharotic produced so tight a constriction in the gullet that no food could pass down into the stomach. Death from inanition must have been the result had not Dr. Verneuil courageously resolved to perform the dreadful operation known as gastrotomy. On the 26th of July accordingly, he cut right into the lad's stomach and inserted into it an elastic tube, through which food could be injected. In this way soup, fine chopped meat, mashed vegetables and drink were administered. On the 10th of September the young man recovered his health and spirits. He was able to go about and help the servants in the hospital, and seemed to have as much life and energy as he had before the accident. Between the 18th of August and the 14th of September he gained 10 pounds in weight, while being fed through the hole in his stomach. Of course this case must have a rare interest for all students of the complex phenomena of digestion, and it cannot but recall a still stranger one, which, nearly 40 years ago, Dr. Beaumont, a Canadian, had the good fortune to observe. His patient enabled physiologists, in fact, to formulate nearly all our existing knowledge of the processes of stomachal digestion. He was one Alexis St. Martin by name, and, luckily for science, he had a hole made in his stomach through the sudden discharge of a gun, and Dr. Beaumont cured him so far that he recovered his health; but though the wound healed, the opening remained, and through it Dr. Beaumont was enabled to see the workings of a living human stomach in nearly all conceivable circumstances. Another case of the same sort—that of an Esthonian woman—came under the observations of Drs. Schroeder and Grunewaldt some four and twenty years ago, and vivisectors know how Blondlot and others artificially produced the same condition in dogs, and thereby gained a certain insight into the behavior of food in the ventral alembic of the tissues. It was found, for example, that in the fasting state the walls of the stomach appeared pale and flabby, and lay close together, whereupon some people erroneously concluded that the sensation of hunger was due to the rubbing of the coats of the stomach on each other. It was noted that whenever food was introduced the sides of the cavity reddened with the stimulated circulation and its muscular activity was aroused. As Dr. Beaumont said, from observations made on Alexis St. Martin, the chewed food was churned in the stomach, and carried round and round the course of its curvatures. In this way it was triturated and exposed to the solvent action of the gastric juice which acted on the albuminous and gelatinous substances swallowed, until gradually a milky fluid known as chyme was elaborated. Thus was it found out that we take usually about four hours to digest a dinner; and it was also discovered that different kinds of food vary much in their digestibility—notable, for example, that fats and oil take a long time to digest when introduced into the stomach alone, but are much more speedily got rid of by that organ if eaten with salad or vegetable matters.

Effect of Emotions.

Of all the curious facts observed by students of the phenomena of digestion, however, none was stranger than the extent to which emotions were seen to effect the operations of the stomach. Mental exertions pure and simple did not seem to retard digestion so much as had been conjectured. Yet when associated with deep emotions, or with that fretfulness of mind we call "worry," it appeared to have a baneful influence. As for the fiercer passions, an outbreak of them would sometimes suffice to prevent the stomach even when most vigorous from discharging its functions. Another mysterious phenomena noticed in connection with digestion was the sympathetic influence exercised by the stomach over the secretion of the mouth. This secretion, as is well known, has an important chemical action on certain constituents of food, changing by a sort of fermenting process starchy matters, for instance, into sugar. In Dr. Verneuil's case, whenever food was injected into the stomach of his patient "a flow of saliva in mouth is produced, in the injection of which a motion curiously resembling chewing is remarked." In short, the different parts of the digestive apparatus are so linked together by nervous connections that they "sympathize" with each other, and if one be stimulated the rest are also excited. But, as might be expected, there is no connection apparently between the nervous system of the stomach and the nerves of taste, for it is related of Dr. Verneuil's patient that when the food is put into his stomach, although his mouth fills with saliva, he feels no sense of flavor in the substance with which he is fed. He is only aware if they be hot or cold, and indeed no anchorite could be in a state of more philosophical indifference to the choicest pleasures of the table. The question forces itself on us, will it be a beneficial thing to rescue him from this condition? These are hard times, and savory food is getting dearer and dearer every day. Would not a man who was thus physically insensible to gastronomic luxuries who cared not a jot what he ate or drank, have an advantage in the battle of life which ought not to be lightly estimated? So long as good digestion waited on appetite, he would be free from the carking care that darkens the soul of the sybarite as he ponders in his mind that most momentous of all questions, what shall I have for dinner to-day? or sits down to his banquet in fear and trembling lest the cook's kitchen science may for once have failed him in its preparation.

Metallic Poisoning.

Some years ago a superior sort of candles was introduced, which looked well and gave a remarkably clear, bright flame. But people who used them became affected with strange symptoms. The doctors were consulted, and it was found that the candles derived their attractive qualities from arsenic being used in their manufacture in such quantities as to be dangerous to health—if not to life. The fact was made public, the new candles being nicknamed "corpse candles;" and they proved, no more than the dog of the atory, able to survive the imposition of an ill name They disappeared, but have reappeared in Paris, where a rich lady, living in a fashionable quarter, lately became ill in such a way that she was supposed to be suffering from slow poisoning. The doctor who was called in found, one morning, the water placed by her bed covered with a thin film of arsenic. She had been in the habit of reading in bed, and the candles she used having been examined were found to be of dazzling whiteness, a whiteness, however, as was shown on analysis, caused by the admixture of arsenic, which, being volatilized during the process of combustion, had poisoned the air of the room. They were corpse candles. When once an article of this kind gets into the market it is very difficult to exclude it, as has been shown in the case of arsenical wall paper and other poisonous fabrics. Lead compounds, again, are very dangerous and insidious. The workmen in the manufactories in which they are prepared suffer greatly from their poisonous nature, and there does not appear to be any practical remedy. Lead poisoning in manufactories and workshops can only be prevented ultimately by a variety of minute precautions which it is very difficult to get workmen to take. A curious instance of lead poisoning was recently reported from St. Mary's hospital. A cab-washer, who was in the habit of working all night and leaving off when the public houses opened, had also acquired the habit of having a glass of beer or gin at that hour, and it was generally the first served in the house, so that he usually got the liquor which had remained all night in contact with the lead of the draw pipe. When taken to the hospital the poor man had completely lost the use of his upper extremities, and his voice was reduced to the merest whisper. His gums showed the well known blue line indicative of lead poisoning, and some of the gin which he had drunk, being tested, gave 1.430th grain of lead per fluid ounce. The well known proverb promises the worm to the early bird; here the early bird has had a narrow escape from the worm.—*Iron.*

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San Francisco, 1875.

WOODLAND, CAL., Aug. 8th, 1876.

MESSRS. DEWEY & Co.—*Gents:* Your letter containing the patent for my Centennial churn has come duly to hand, and you will please accept my many thanks for the prompt manner in which you attended to the business intrusted to your care, and I will take great pleasure in recommending you to any one having anything to attend to in your line. I am having a number of the churns put up, which will be ready for sale in a few weeks. Yours truly, JAMES ROOT.

SEWING MACHINES.—We have a first-class machine we wish to dispose of on favorable terms. Apply at this office.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

A. MAILLIARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, San Bruno, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $100.

P. STANTON, Sacramento, Cal., breeder of choice Jersey Cattle. Bulls, Cows and Calves for sale.

SHEEP AND GOATS.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle, Essex and Berkshire Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

LANDRUM & RODGERS, Watsonville, Cal., importers and breeders of Pure Breed Angora Goats.

POULTRY.

M. FALLON, Cor. Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Eggs for Hatching from Pure Bred Fowls.

J. M. KERLINGER, Ellis, San Joaquin Co., Brown Leghorns a specialty.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas and B. B. Red Game Bantams. Also Eggs.

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ALFRED PARKER, Bellota, San Joaquin Co., Cal., Breeder of Improved Berkshire Swine.



LOOK!

ALBERT E. BURBANK, importer and breeder of Fancy Fowls, Pigeons, Rabbits, Dogs, etc. Also, Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,
43 and 44 California Market, S. F.

BERKSHIRES.

I am breeding PURE ENGLISH BERKSHIRE PIGS and have them constantly on hand. Also, fifteen two and three-year old Sows, several of them with Pig. These are all from Pigs I imported from Kentucky.

PETER SAXE, Importer.
Commercial Hotel, San Francisco.

50 Visiting Cards, with your name finely printed, sent for 25c. We have 100 styles. Agents Wanted. 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

Trees, Plants, Bulbs. Fall Price List and Bulb Catalogue GRATIS Address, F. K. PHŒNIX, Bloomington Nursery, Ill

CALIFORNIA FARMERS' MUTUAL

Fire Insurance Association,

No. 38 California Street,

(GRANGERS' BUILDING,)

SAN FRANCISCO, CAL

Capital..... $200,000 00
Assets, October 15, 1876..... 268,716 52

MUTUAL PLAN.

	AMOUNT.	PREMIUMS.
Risks written to Oct. 1, '76...	$5,181,591.00	$114,445.57
Less Amount Canceled.....	300,644.00	6,297.50
Amount in force, Oct. 1, '76..	$4,880,947.00	$108,148.07
Losses paid.....	$7,251.00	

CASH PLAN.

	AMOUNT.	PREMIUMS.
Risks written to Oct. 1, '76...	$2,585,914.19	$51,606.96
Less Canceled and Expired...	976,908.00	$19,538.16
Amount in force, Oct. 1, '76...	$1,609,006.19	$32,068.80
Losses paid.....	$10,153.71	

OFFICERS.

J. D. BLANCHAR.....PRESIDENT
I. G. GARDNER.....VICE-PRESIDENT
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A. W. THOMPSON.....ATTORNEY
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A. W. Thompson.....San Francisco
A. D. Logan.....Colusa
I. C. Steele.....San Mateo
G. W. Colby.....Butte County
A. Wolf.....Stockton
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Farm property insured at actual cost on the Mutual Plan. Other desirable property insured, and rated according to merit.

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.



Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff, White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

EGGS FOR SALE AFTER JANUARY FIRST.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

Satisfaction Guaranteed.

For further information send stamp for Illustrated Circular, to

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R. S. THOMPSON,

IMPORTER AND BREEDER OF

PURE BERKSHIRE SWINE,

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THOROUGHBRED FOWLS,

BRONZE TURKEYS,

Pekin Ducks Embden Geese.

SAFE ARRIVAL OF FOWLS GUARANTEED.



Eggs Shipped to Any Part of the Coast to Hatch After Arrival.

1877 Price List now Ready. Address,

M. EYRE, Napa, Cal.

(Please inclose stamp.)

Also, Thoroughbred Southdown Sheep.

FOR SALE.

A fine lot of seventy-five high grade Angora Goats. Will sell for cash, or trade for a pair of good horses and a heavy wagon. For particulars address

I. F. TABOR,
New Castle, Placer Co., Cal

25 FANCY CARDS, all styles, with name, 10 cts Post paid. J. B. HUSTED, Nassau, Rens. Co., N. Y

The Leading Optical Depot of the Pacific Coast.

C. MULLER,

Wholesale and Retail Optician,



IMPORTER OF OPTICAL GOODS,
No. 135 Montgomery Street, near Bush,
SAN FRANCISCO.

Sportsmen, Tourists and Pleasure Seekers are invited to examine our celebrated Tourists' Glasses, which, for power and durability, are unequaled.

SPECTACLES—Their adaptation to the various conditions of sight has been my specialty for upwards of 30 years. Send for Muller's Pebble Spectacles. Directions and Price List Mailed Free. Orders by mail receive prompt attention. Goods forwarded per Wells, Fargo & Co., C. O. D. (subject to approval.)

Those contemplating making *Holiday Presents, take notice.*

C. MULLER, Optician,
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Grangers' Bank of California,

42 California Street,

SAN FRANCISCO.

Authorized Capital, $5,000,000.

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CASHIER.....ALBERT MONTPELLIER
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The Bank was opened on the first of August, 1874, for the transaction of general banking business.

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FARMERS,

MACHINISTS,

And Industrial Classes generally, and supply them, post free, at published prices; for particulars of which see catalogues, which will be forwarded on application.

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721 Market Street, S. F.

CHRISTMAS.

Something New!
Something Beautiful!
Something to Keep!
Something to send East to your friends!
Something to put your Photographs in!

WHAT IS IT?

Eighteen Photo-lithographic Views of the Pacific Coast—Golden Gate, San Francisco, Mission San Juan Capistrano, Cliff House and Seal Rocks, Sutter's Mill, Quartz Mill and Mining, Hydraulic Mining, Yosemite Fall, Big Trees, Vernal Fall, Geyser Canyon, Donner Lake, Uncle Sam, from Lakeport, Mount Diablo, from Benicia, Mount Shasta, Fort Point, S. F., University at Berkeley, State Capitol; all enclosed, in an oroide box, with the design of the U. S. $20 gold piece stamped thereon. Sent postpaid for 20 cents; four for a dollar. Send postage stamps, P. O. order, currency, gold or silver. Address,

W. C. QUINBY & CO.,
414 Clay street, San Francisco, Cal.

The Patron's Almanac for 1877.

Second year of issue. Greatly enlarged and improved. Contains 72 pages of useful matter; The Constitution and By-laws of the Order; Rules for Subordinate Granges; Decisions of the National Body; Declaration of Purposes; Rules of Order in the Grange; Origin and Object of the Grange, etc. Also, many useful and correct rules, tables, etc., for weighing, measuring and calculating the contents of timber, lumber, land, boxes, cribs, etc., besides *accurate* calendar pages for all parts of the Union. In short, it is an indispensable companion for every Patron or farmer in the Pacific as well as in the Atlantic States. Price, by mail, postpaid: Single copies, 10 cents; 12 copies, 75 cents; 18 copies for $1 00; 24 copies, $1.25; 100 copies, $5.00. Address,

S. HOWARD WILSON,
Mechanicsville, Bucks Co., Pa.

A Boy for the Country.

An intelligent lad, 13 years old, wants a permanent home in the country. Address J. B. PORTER, dentist, Oakland, Cal., or at this office.

Bills Introduced in Congress Relative to California.

Mr. Luttrell, of California, has introduced in the House of R presentatives the following bills relative to California:

A bill (H. R. 4,122) to quiet land titles in the State of California.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that, in all cases where the State of California has heretofore made selections of any portion of the public lands of the United States in said State, in lieu of sixteenth or thirty-sixth sections, which last named sections were, at the date of such selection, embraced by the exterior boundaries of valid Mexican or Spanish grants, and where the final surveys of such grants had not been made and finally approved at the date of such selection, and where the lands embraced in such selections have been listed and certified over to the State by the proper authorities of the United States, and where any indemnity school selections have been made by the State, and the lands embraced therein have been certified over to the State by the proper authorities of the United States, and the State has disposed of the same to purchasers in good faitu under her laws, the lands so selected and certified over, as aforesaid, shall be, and are hereby, confirmed to the State of California, subject to the limitations and exceptions hereinafter contained; *provided*, that in case the State shall, by virtue of this Act, receive indemnity for sixteenth or thirty-sixth sections to which she was not entitled under existing laws, such sixteenth or thirty-sixth sections shall be subject to the disposition of the United States in the same manner as other public lands.

Sec. 2. That this act shall have no application to such indemnity lands as were, at the date of its passage, in the occupation of any *bona fide* settler, claiming the same in good faith under the pre-emption or homestead laws of the United States; *provided*, That at the date of such settlement the purchaser from the State, or those claiming under him, was not in possession of the land by virtue of occupation or cultivation of the same, or by reason of having improvements thereon; and that the land had not, at the time of such settlement, been certified over to the State of California by the proper authorities of the United States.

A bill (H. R. 4,174) to appropriate money to improve the navigation of the Sacramento river.

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, that the sum of $100,000 be, and is hereby, appropriated, to be paid out of any money in the Treasury not otherwise appropriated, for the improvement of the navigation of the Sacramento river, between the town of Red Bluff and the bay of San Francisco in the State of California.

A bill (H. R. 4,173) to appropriate money for the improvement of the navigation of Feather river, California.

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, that the sum of $25 000 be, and is hereby, appropriated, to be paid out of any money in the Treasury not otherwise appropriated, for the improvement of the navigation of Feather river, between the city of Marysville and the town of Vernon in the State of California.

French Fruits and Flowers.—Two or three months ago we received a call from Mr. J. Grelck, of Los Angeles, a reader and contributor to the Rural Press. At that time Mr. Grelck informed us that he had under way a considerable importation of French plants and trees and we desired him to report to us the receipt of the stock. Last week we received a letter from him announcing the arrival of the importation in good condition. His enterprise brings into our State above 12,000 trees, shrubs and flowers, many of which are new to our soil. In the list which Mr. Grelck sends us we see a number of growths of which we have read in French reports, but which we have never seen. It would be needless to repeat them here, but we will be pleased to show the list to any one who may desire to see it. We must allude, however, to some French everbearing strawberries, of which Mr. Grelck sent us a box of berries to examine. They are of peculiar flavor, in some respects quite different from the common varieties grown in this country. Although as strawberries we do not think they compare with some common varieties, they certainly possess some characteristics which entitle them to consideration, and their delicate flavor will doubtless win them the regard of the epicure. The runnerless habit of the plant makes it well adapted for growth in borders. Mr. Grelck has shown enterprise in his business and we trust will do well in his ventures.

Advices from Panama of the 16th, state that the commission which lately arrived from Europe for the purpose of making a new survey for an inter-oceanic canal across the Isthmus of Darien, left Panama on the 11th for the scene of their labors. The commission expect to be occupied with explorations and surveys until June next.

The British postal authorities have selected the Williams & Guion line for the conveyance of mails between Queenstown and New York.

General News Items.

Inspector-General Dumont recommends the abolition of the Board of Supervising Inspectors of Steamboats.

The convent at St. Elizabeth, Canada, was burned on Monday night. One hundred persons were in the building. Nine children are reported missing.

Captain Hall, of Detroit, who has just prepared the marine statistics of 1876, places the number of lake disasters at 636, and the value of property lost at $1,100,000.

A petition is in circulation for the reinstatement of ex-Paymaster Spanlding, and nearly all the members of the court-martial which tried him have appended their names to it.

The steamship *Oceanic* has just made the fastest passage on record from Yokohama. She came in 14 days 15 hours and 20 minutes, the fastest previous time being that made by the *City of Peking*—15 days 12 hours.

The Post Office Department calls attention to the provisions of the General Postal Union treaty made at Berne, which positively prohibits the transmission, in the mails, of gold or silver money, jewels or precious articles, or any other article whatever liable to custom duties.

It is feared Turkey will resist nearly all the proposed reforms which the Powers considered the minimum they are entitled to demand. It is thought Elliott, the British ambassador, favors resistance on the part of Turkey, and his departure from Constantinople is considered reassuring for peace.

Certain bondholders of the California Northern railroad company have commenced suit against Richard Cheney et al., for foreclosure of a certain mortgage, and to get possession of said railroad. Butte county intervenes, and sets up a claim arising from payment of $20,000 annually as interest on railroad bonds.

General Crook's expedition is on its way homeward. Since the fight in the Big Horn mountains, small bands of Indian braves have been wandering about the country in this vicinity and keeping watch of all his movements, a fact that tends to make the surprise of the hostile Sioux by the troops a matter of extreme difficulty, if not wholly impossible.

Monday night's overland train brought from Washington $2,000,000 in greenbacks for the office of the U. S. Assistant Treasurer. This money will be applied to the payment of demands against the Government. Mr. Sherman, the Treasurer, has on hand: National bank notes, $790,000; old worn-out notes, $460,000; fractional currency, $156,000; redeemed gold notes, $669,000—making a total of $2,075,000. In addition, he has nearly $4,000,000 in gold coin and $110,000 in silver.

The largest fire in Tokio (Yedo) since April, 1872, occurred November 29th, beginning just before midnight and lasting about eight hours. Sixty-five streets, containing 5 000 houses, were totally destroyed, and 50 lives believed to be lost. The loss of property is estimated at $10,000,000. The residence of the Austrian Minister was burned, and that of the United States Minister narrowly escaped. There were prompt and effective measures taken by the government for the relief of sufferers. The burnt region is rapidly rebuilding, with the introduction of great public improvements. The great fire in Tokio on the 29th ultimo was followed by another on the morning of the 2d instant, which destroyed 226 houses.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[From Official Reports for the Mining and Scientific Press, DEWEY & CO., Publishers and U. S. and Foreign Patent Agents.]

For Week Ending December 19th.

Envelopes.—Alfred S. Addis, Anaheim, Cal.

Liquid Droppers for Bottles.—Cornelius E. Davis, St. Helena, Cal.

Return Tubular Boilers.—Robert Ehman, Vallejo, Cal.

Bed Chairs.—Henry W. Fortune and Augustus H. Roberts, S. F.

District Telegraph Boxes.—George S. Ladd and Stephen D. Field, S. F.

Devices for Placing Submerged Blasts.—Louis J. Le Conte, Oakland, Cal.

Plows.—Christian Myers, Marysville, Cal.

Aërial Machines.—John B. Ward, S. F.

Spring Bed Bottoms.—Micajah Collins and Benjamin A. Lillie, Portland, Ogn.

Keyhole Guards for Locks.—Calvin H. Covell, Stockton, Cal.

Bale Ties.—William P. Garlach, S. F.

Machine for Winding Paper into Rolls.—Gardner Howland, Los Angeles, Cal.

Locomotive Springs.—James Jenkins, Carlin, Nev.

Compound for Artificial Stone.—Llewellyn L. Leathers, Oakland, Cal.

Dredging Machines.—Alexey W. Von Schmidt, S. F.

Gang Plows.—Elisha W. Walton, Collinsville, Cal.

——The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

Note.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

The new steamship *City of Chester*, just completed, to run between San Francisco and Portland, Oregon, sailed from New York for this port on Thursday.

Woodward's Gardens embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

Notices of Recent Patents.

Among the patents recently obtained through Dewey & Co.'s Scientific Press American and Foreign Patent Agency, the following are worthy of mention:

Scow and Pile Driver.—Richard Hillyer, San Francisco. Mr. Hillyer's patent relates to an improvement in floats or scows, such as are used in supporting pile drivers and moving them from place to place in order to conveniently drive such piles as are driven into material under water. It also relates to an improved manner of securing the pile driver so that it can be adjusted back or forward according as required by the circumstances of each case. By the arrangement patented the inventor is able to drive the piles on a straight line and at the same time fasten the scow immovably while driving each pile. This arrangement also permits the inventor to use his patent gripping device for pulling piles (described in our last issue) to a great advantage, as he can work all around the pile, and he obtains the advantage of applying the downward force at or near the middle of the scow.

Manufacture of Solder Wire.—H. G. Hulburd, Placerville. This is an improvement in the manufacture of solder wire for soldering purposes, and it consists in running the melted solder through a funnel-shaped vessel into water, where it is cooled and converted into wire, such as is used for soldering. The improvement consists also in the construction and arrangement of the receiving vessel, which is arranged to have nozzles of different sizes for different sized wire.

Spring Bed.—A. J. Lattin, Alvarado, Alameda Co. The invention relates to certain improvements in the construction of beds, and consists in a novel construction of the longitudinal slats which form the bed bottoms, and also in a means of attaching them to the coiled spring at the other end, together with certain details of construction. The invention also relates to the construction and attachment of a head and foot piece, which completes the bed.

Hose Cart Reel and Irrigator.—E. J. Delaney, San Jose. This invention relates to carts for the transportation of garden hose and consists first, in providing an arrangement by which the rotation of the axle can be made to rotate the reel for the purpose of winding up the hose when desired, and secondly to a novel arrangement by which the carriage may be converted into a standing irrigator.

The People's and Grangers' Immigrant Bureau, 40 California St.

This institution, according to reports published in the daily papers, has provided situations free of charge for more than 6,000 applicants, and furnished 7,000 persons in search of lands for settlement with letters of introduction to prominent citizens in the interior. The services of the bureau are entirely free to all, as it is supported by subscription. It is just what we need in California, and should be supported. Orders for help will be filled free of charge to either employer or employee. Send them in. Hundreds of immigrants are waiting for them.

Hard on the Publishers.—Some of our subscribers when called upon by our agents insist that they have sent us notices through (perhaps) a neighbor, the postmaster, or a letter, and we have taken no notice of their orders, for which they feel hard towards us. Now, we never received such notices without responding to them. *It would be suicidal to our interest to ignore them.* The fact is that it too frequently happens that people misdirect their letters; too frequently forget to put the right (or any other) kind of stamps on their letters; they too often send a copy of the paper back, which may never reach our business office, or if it does reach us, may lack the name of the town and county in which the subscriber lives, in which case we cannot (if we have his name) tell what part of our list to find it, to cross it off or change it, without looking over some 10,000 names. Postmasters and their clerks make omissions and mistakes as well. ☞ When you have business with this office remember postal cards and letter stamps are cheap, and ask no one to do that which you can well do yourself. tf

American Manures, or Farmers' and Planters' Guide.—Comprises a description of the elements and composition of plants and soils; the theory and practice of composting; the value of stable manure and waste products, etc. Also, a chemical analysis of the principal manufactured fertilizers—their assumed and real value—and a full expose of the frauds practised upon purchasers. By Wm. H. Bruckner, Ph. D., Phila. Sold at this office. Price, $1.75; post paid.

The Threshers' Guide, by D. W. Hollihan, a practical operator with threshing machinery in California and other States. A book of useful and friendly hints to the grain growers, machine owners and threshing superintendents and workmen. Published at the Rural Press office, in 1872. Price, $1; in limp cloth binding, 75 cents; postage paid.

To have the money needlessly spent every year would give substantial comfort to all. To have the money saved by buying SILVER TIPPED boots and shoes would buy each parent every year a pair of new shoes. Also try Wire Quilted Soles.

Beware of Dry Seasons!

Cultivate Irrigated Land and get Two Crops a year. No Failure.

Irrigated Land for sale in quantities to suit, on the installment plan; four years' credit, no interest charged. NO CHARGE FOR WATER FOR IRRIGATION. On railroad, only nine hours from San Francisco. Adapted to the growth of semi-tropical fruits and all vegetable productions.

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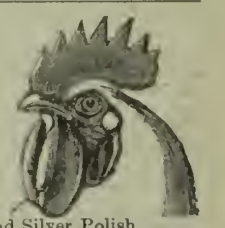
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Rev. DAVID McCLURE, Principal
OAKLAND, CAL.

FOR SALE.

Ninety acres of the Mt Pleasant ranch, situated on the turnpike road between Auburn and New Castle, Placer county, being two miles from Auburn and one mile from New Castle. Both places are on the C. P. R. R., and have Express office, Post-office, etc., and are good shipping points for produce over the mountains. About twenty-five acres of said land are under improvement; two acres in Berries, a few choice Grapevines, and a few fruit trees in bearing. The soil is from three to eight feet deep and well adapted to the growing of all kinds of Fruit, Grain or Alfalfa. Good facilities for irrigating from Bear River ditch. This is one of the best fruit sections in the State, large quantities of all kinds being shipped from here daily during the Summer season. The purchaser will be given house and barn room free until he can build. Reference may be made to the Postmaster at New Castle or Auburn, or to C. T. Adams, New Castle, who owns land adjoining mine. Title, U. S. Patent. My reason for wishing for wishing to sell is old age and inability to labor. Price, $1,800. James Munsell Sr.

Apply to JAMES MUNSELL, Jr., 224 Sansome St., San Francisco, Cal.

M. FALLON,



Cor. Seventh & Oak Sts.,

OAKLAND, CAL.

Light & Dark Brahmas,
Buffs, White and Partridge Cochins,
Spangled, Golden and Silver Polish,
Spangled, Goldeu and Silver Hamburgs,
Puro White faced Black Spanish,
White and Brown Leghorns,
Silver Grey Dorkings,
Hondans, Silkies, Black-Red Games,
Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains.

Fowls of the above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received.

PETALUMA NURSERIES.

Established - - - 1860.

We offer this season a large and well-selected stock of Fruit Trees, Fruit Bushes, Vines, Shade Trees and a general assortment of Evergreen Trees and Shrubs. We have 1 000,000 Oums from $5 per M up, according to size. We have also an over-stock of Pinus Insignus, Monterey Cypress, Pure White Pampas Plants, large pinnies, Large Araucaria Excelsa, American Elm, Black Walnuts and Blackberry Roots, at very low rates. Price List sent on application. Address

WM. SEXTON, Petaluma, Cal.

PACIFIC RURAL PRESS,

A first-class 16-page Agricultural Home Journal, filled with fresh, valuable and interesting reading. Every farmer and ruralist should take it. It is immensely popular. Subscription, $4 a year.

DEWEY & CO., Publishers.
No. 224 Sansome street. SAN FRANCISCO

Tule Lands.

FOR SALE OR TO LEASE. ABUNDANCE OF PASTURE ON THEM. Address

MERCER & McAFEE,
426 Montgomery St., San Francisco.

W. H. GROVES, Stockton, Cal., has for sale White Leghorn Fowls and Chicks and a few Light Brahma fowls, for the next thirty days. Stock first-class. Enclose stamp for reply.

The Mining and Scientific Press, Established 1860, is a Large, Ably Edited and Liberally Illustrated Weekly—the Best Practical Mining and Mechanical Journal in America. $4 per annum, postage paid. Dewey & Co., San Francisco.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Wednesday, Dec. 27, 1876.

The week has been broken by the Christmas holiday, and the near approach of New Years and the final inventorying, etc., engages the attention of merchants in some lines. To-morrow (Thursday) will be the last collection day of the year and engagements must be met. Aside from holiday matters, the talk is still of the dry weather, and the advance of Wheat and Hay are continued. The cable dispatch to-day to the Produce Exchange is not changed; but private advices of which we are informed note a slight advance and a firm market for California Wheat in Liverpool.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	CAL. AVERAGE.	CLUB.
Thursday	10s 11d@11s 3d	11s 1d@11s 7d
Friday	11s —@11s 4d	11s 3d@11s 8d
Saturday	11s —@11s 4d	11s 3d@11s 8d
Monday	Holiday.	Holiday.
Tuesday	11s —@11s 4d	11s 3d@11s 8d
Wednesday	11s —@11s 4d	11s 3d@11s 8d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	9s 10d@10s 2d	10s 4d@10s 8d
1875	10s 5d@ 0s 10d	10s 10d@11s 6d
1876	11s —@11s 4d	11s 3d@11s 8d

It may be noticed that the rates are 3@4d per ctl higher than one week ago.

The Foreign Review.

LONDON, December 25th.—The *Mark Lane Express* says: Rain has been prevailing, a characteristic of the weather this past week. Wheat looks thriving and has not suffered, although imports continue light. The granary stock is fair, with a slight tendency toward lower prices at the close of the week, with limited arrivals at Liverpool and London. Millers were more active buyers at prices indicating a complete recovery of the depression noticeable early in the week. With the political questions still in suspense, sellers are confident of a further improvement. There has been little alteration in spring Corn, although decreased imports of Maize and advanced value in America point to a rise. The exports show the favor with which this Corn is regarded on the Continent is unabated, indeed some improvement in value is noted with more general demand. Floating cargoes shared the improved feeling. Malting and grinding descriptions of Barley in limited demand, and lower rates for the latter were accepted. The previous week's decline in Maize has been fully recovered.

Freights and Charters.

The *Commercial News* says: The low rates ruling have not led to much business, though many ships seem willing to accept going rates rather than wait any longer. Only four Wheat charters have been drawn during the week, all but one being of medium sized iron ships. The latest charter rates are £2 6s 6d for iron and £2 2s 6d for wooden vessels to Cork, U. K., which figures represent the market at the close. We have now 27,209 tons in port under charter to load Wheat, 6 039 tons miscellaneous and 41,203 tons disengaged, which is sure to be largely increased by the first southeast gale. The latest charters reported are: Ship Oregon, 1,430 tons, Wheat to Cork, U. K., £2 2s 6d, Continent, £2 7s 6d; Ger bark India, 974 tons, Wheat to Cork for orders, prior to arrival, private; Br ship Raglan Castle, 1,050 tons, Wheat to Cork, U. K., £2 6s 6d; Br bark Miami, 498 tons, Wheat to Cork, U. K., £2 5s 6d; Br bark Parkmook, 790 tons, Wheat to Liverpool, £2 3s, Cork, U. K., £2 6s 6d.

Chicago Grain Market.

CHICAGO, December 24th. — Breadstuffs, especially Wheat, have been dull for even this season, but generally firmer, and with a strong upward tendency at the close of business. Wheat closed at $1.12¾; Corn, 44¾c; Oats, 33¾c. Receipts for the week: Wheat, 267,000; Corn, 568,000; Oats, 142,000 bushels, against Wheat, 276,000; Corn, 396,000; Oats, 124,000, for the same time last year. Shipments were: Wheat, 156,000; Corn, 237,000; Oats, 111,000 bushels, against Wheat, 92,000; Corn, 135,000; Oats, 61,000, last year. The prospects are not changed since last week, though the ultra bulls are predicting that prices have only begun the upward grade, and will reach a higher grade than for many years. Many of the heavy dealers, are, however, arraying themselves on the bear side. Provisions are generally stronger.

New York Grain Market.

NEW YORK, December 24th.—There has been something of a revival of export trade, with an advance of 5@7c on Wheat, 2@3c on Corn and 15@25c on Flour, under the influence of stronger advices from Europe and the West. Spring Wheat has sold up to $1.30@1.45 for No. 3 to No. 1, and winter to $1.35@1.55. Prime shipping Corn is up to 62@64c, and shipping Flour to $5.60@6.60. Considerable Wheat has been bought in store here on Western account for investment, on the strength of a belief in a still more substantial advance. Considerable Corn is being shipped to Europe from first hands, under a like impression.

Corn Crop Reports.

WASHINGTON, December 22d.—The statistician of the Department of Agriculture, in his December report, makes the Corn crop only two per cent. short of the great crop of last year, and fully 50 per cent. greater than that of 1874. The aggregate, subject to a possible future revision, is 1,295,000,000 bushels.

Eastern Wool Markets.

NEW YORK, December 23d.—As regards Wool, there is little of an interesting or important nature to state. The market throughout the week has been exceedingly dull, manufacturers buying only when their wants demand, not caring to lay in supplies to carry over into the new year. The opinion prevails, however, that with the opening of the new year a more satisfactory trade will follow, and with a reduced supply of the finer grades of domestic, a further advance will be established. The statistical situation is indeed very favorable to holding interests, and with this fact in mind there is no disposition to force sales. Spring California is about out of stock, but fall is quite ample for all likely demand. Sales for the week are: 10,000 lbs Cape at 34½c; 26,000 lbs fall California, 18@22c; 17 bales spring, 28c; 38,000 lbs Western Texas, 20@24c; 40,000 lbs Eastern, 22@17c; 10,000 lbs Colorado, 18@21c; 50 bales No. 1 pulled, 25c; 50,000 lbs XX Ohio, 48c; 20,000 lbs X do, 44c; 10,000 lbs medium unwashed Western, 31c; 4,000 lbs Ohio delaine, 48c; 4,000 do combing, 52c; and 148 bales Donskoi, 95,000 lbs Eastern and Western Texas, 6 00 lbs foreign Nolls, 12,000 lbs white domestic do, 10,000 lbs combing pulled, 25 bags No. 1 do, 58 do X do, 230 do super do, 80,000 lbs X and XX Ohio, 20,000 lbs fine unwashed Western, and 50,000 lbs tub washed, on private terms.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

ARTICLES.	WEEK Dec. 6.	WEEK Dec. 13.	WEEK Dec. 20.	WEEK Dec. 27.
Flour, quarter sacks	33,426	23,221	73,080	23,568
Wheat, centals	254,366	285,027	339,886	157,148
Barley, centals	42,451	38,708	25,206	32,661
Beans, sacks	9,160	5,748	4,092	3,449
Corn, centals	5,978	4,280	7,295	5,533
Oats, centals	2,355	5,290	9,960	3,738
Potatoes, sacks	20,673	17,189	23,392	19,210
Onions, sacks	1,298	1,146	1,252	1,743
Wool, bales	438	390	342	107
Hops, bales	78	.....	420	65
Hay, bales	976	1,035	1,621	970

Bags—There are no changes in quotations. It is still possible, for cash, to pay standard English Wheat Bags at ½c below the prices which we give below. Our quotations are jobbing rates with the usual credit.

Barley—Barley sales are within lost week's range, viz: 1,500 sks dark Coast, $1.15; 1,200 sks good Coast, $1.20, silver; 4,600 sks Bay Brewing at $1.25 per ctl, gold; 4,000 sks fair Brewing at $1.22½, gold (cash); 657 sks Feed, $1.12½, gold; 500 sks dark Coast do, $1.10, gold; 1,500 sks Coast do, $1.20, half and half; 700 sks do do, $1.22½ per ctl, silver; 300 sks dark Coast at $1.15; 1,000 do Bay Feed at $1.22½; and 750 do Bright Feed at $1.22½; 200 sks Bay Feed at $1.22½; 200 sks Coast Feed at $1.20; and 2,300 sks do at $2.17½; 2,000 sks Coast Feed at $1.17½; 200 do, $1.20; 350 do at $1.22½, all for silver; 1,500 do bright do, $1 12½ per ctl, gold; 2,000 sks Coast Feed, in lots, at $1.20, silver; 150 do brigbt Coast, for seed, $1.25, silver; 2,200 sks Coast Feed at $1.17½, silver; 110 do Bay do, $1.22½, silver.

Beans—Lima Beans are advanced to $2.75@2.87½ per ctl. Sales, 400 sks at latter price.

Corn—The market is quiet. We note sales: 1,700 sks Yellow, in lots, $1.17½; 600 do do, $1.20, silver; 200 do small round, $1.27½.

Dairy Produce—Butter is still received in large quantities, and prices are weaker. Although our quotation of last week, 30@35c, is retained, sales tend rather to the lower figure, and nothing but an occasional fancy brand reaches the top price. There can be but little doubt, however, that a continuance of the drouth would exert a speedy and notable effect upon the prices in this line of produce. California Cheese is selling within our range except a few fancy brands, which exceed the 15c by a fraction. Eastern Cheese is now put upon the market by some commission merchants at 19@20c, but we see no reason why this trade should not work upon the home product and this be pushed instead of Eastern Cheese.

Eggs—Eggs are weak at 40@42½c. The supply is large.

Feed—Ground feeds are unchanged. Hay shows a tendency to advance rapidly. The finest wheat may now be quoted up to $18 per ton. Sales of small lots received by rail are reported at this figure although no cargo sales are noted. Other sales of Hay during the week include the following: 515 bales Wild Oat and Wheat mixed, at $15; 17 tons fair Cow, at $12; 25 do, Barley, $13.75; 64 tons good Wheat and Wild Oat, $15 An extreme price is reported of 25 tons Choice Wheat at $18.25 per ton.

Fruit—Los Angeles Oranges and Lemons are now coming in regularly. Pears now sell at a range of $1.00 to $2.50, according to quality. Other prices may be found in our tables below.

Hops—We note nothing new in Hops, and last week's quotations, 20@25c, are retained. The New York market for the week ending December 17th, is reviewed by Emmet Wells as follows:

There is no material change to report since our last, if anything the market is a little more steady with a somewhat better demand both for export and for consumption. This week's exports embrace a shipment of some 200 bales of yearlings, and 200 halea of Californiaus, all for the London market. Prices in the interior of New York State have given away so that now 25 cents is all that is paid for the choicest shipping Hops; here 30 cents is still attainable, but the kind of Hops wanted for export are extremely scarce and difficult to find. Holders of low and medium still exhibit much anxiety to sell, but the instant they undertake to force sales, buyers take advantage of it and make their own price and terms. The ruling price here for State Hops, for anything under a shipping grade is 20 to 25 cents, while such as are suitable for export fetch 27 to 30 cents. Western Hops are selling all the way from 12 to 22 cents, Californians and Oregon 28 to 30.

Oats—Oats are firm at last week's advance. We note sales: 100 sks, $1.60; 200 do, $1.80; 2,300 sks Surprise at $2.12½ gold; 150 sks Feed at $1.62½; 61 sacks extra Oregon at $2.17½ gold.

Onions—Onions show an upward tendency. We note sales: 200 sks choice Union City, $1.25; 60 do good Stockton, $1 ₱ ctl. To-day's prices are a point better than these rates.

Potatoes— Potatoes are improved. Prices are given below.

Poultry and Game—There are a few changes in prices noted in our tables, but the demand is well maintained.

Provisions—The market both for fresh and cured meats is quiet and prices are unchanged.

Vegetables—Cauliflower and Celery are higher. Marrowfat Squash is assuming winter rates, being now quotable at $18@21 per ton.

Wheat—A considerable advance has occurred, and prices for large lots are 10@12½c higher per ctl than week ago. We note sales to day: 15,000 tons Shipping at $2.25; 25,000 sks good Milling delivered at Oakland, $2.20; 5,000 sks fair Shipping at $2.12½; 2,900 sks ordinary Milling, $2.10; 1,000 sks Milling, $2.15; 700 sks Sonora, for cracked Wheat, $2.25; 1,000 sks Superfine, $2 05@2.10. Other sales during the week have been as follows: 6,000 sks Shipping, $2.12½; 500 do do, $2.15; 20,000 do do, at Colusa, at about $2.15; 3,800 do, extra choice do, $2.17½; 4,000 ctls choice Milling, at $2.17½; 2,000 ctls do $2.15; 480 sks choice Shipping, $2.15; 500 sks coast Superfine at $1.85 per ctl; 1,000 sks two-year-old choice Milling at $2.25; 500 ctls Coast Superfine at $1.85; 480 do choice Shipping, f. o. b., a $2.15; 2,000 do Milling at $2.15; 4.000 do at $2.17½ ₱ ctl.

Wool—The local market is without change in price or notable features. Quotations are nominal.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY, M., Dec. 27, 1876.

BEANS.

Bayo, ₱ ctl	2 50	@	2 75
Butter	1 50	@	1 75
Pea	1 80	@	2 00
Red	3 00	@	—
Pink	2 75	@	3 00
Sm'l white	1 80	@	2 00
Lima	2 75	@	2 87½

BROOM CORN.

Common, ₱ lb	2	@	2½
Choice, do	3	@	4

COTTON.

Cotton, ₱ lb	15	@	18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	30	@	35
Point Reyes	35	@	—
Pickle Roll	27½	@	30
Firkin	25	@	30
W'st'n Reserve	16	@	25
New York	—	@	—

CHEESE.

Cheese, Cal., lb	10	@	15
do Old	—	@	—
Eastern	12½	@	15
N. Y. State	19	@	20

EGGS.

Cal. fresh ₱ doz	40	@	42½
Ducks'	43	@	44
Oregon	37½	@	—
Eastern	21	@	30

FEED.

Bran, per ton	20 00	@	—
Corn Meal	27 50	@	—
Hay	12 00	@	18 00
Middlings	30 00	@	—
Oil cake meal	—	@	35 00
Straw, ₱ bale	70	@	75

FLOUR.

Extra ₱ bbl	6 50	@	7 25
Superfine	4 75	@	5 25
Graham, ₱ bbl	5 50	@	6 00

FRESH MEAT.

Beef 1st quality lb	4½	@	6½
Second do	3½	@	4½
Third do	2½	@	3
Mutton	4	@	4½
Pork, undressed	6	@	6½
do, dressed	8½	@	8½
Veal	5½	@	6
Milk Calves	7	@	8½

GRAIN, ETC.

Barley, feed ctl	1 20	@	1 25
do brewing	1 30	@	1 35
Chevalier	1 25	@	1 40
Corn, White	1 17½	@	1 20
do Yellow	1 17½	@	1 20
Oats	1 80	@	2 00
Milling	2 00	@	2 12½
Rye	—	@	1 75
Wheat shipping	2 10	@	2 25
do milling	2 20	@	2 25

HIDES.

Hides, dry	20	@	20½
do wet salted	7	@	8½

HONEY, ETC.

Beeswax, per lb	25	@	27½
Honey in comb	10	@	12½
do Strained	6	@	8

HOPS.

New crop	20	@	25

NUTS—Jobbing.

Alm'ds n'rd sh'l lb	—	@	7
do, soft sh'l	15	@	17
Brazil do	14	@	16
Cal. Walnuts	5	@	10
Cbile Walnuts	11	@	12½
Pecanuts	17	@	18
Peanuts per lb	8	@	9
Filberts	15	@	16

ONIONS.

Union City ctl	1 25	@	1 37½
Stockton	1 00	@	1 25

POTATOES.

Petaluma, ₱ ctl	87½	@	90
Salt Lake	—	@	1 10
Humboldt	85	@	90
Half Moon boy	70	@	90
Cuffey Cove	90	@	00
Early Ross new	65	@	75
Sweet	75	@	87½

POULTRY & GAME.

Hens, per dz	7 50	@	8 00
Roosters	6 00	@	7 00
Broilers	5 00	@	5 50
Ducks, tame, dz	9 00	@	0 00
Geese, per pair	2 25	@	2 75
Wild Gray dz	2 50	@	3 00
White	—	@	1 00
Turkeys, Live, lb	20	@	22
do Dressed	19	@	23
Quail, per doz	1 00	@	1 25
Snipe, Eng., doz	—	@	1 50
Doves, per dozen	50	@	87
Rabbits	1 00	@	1 25
Hare, per doz	—	@	2 50
Venison lb	7	@	9

PROVISIONS.

Cal. Bacon, L'l, lb	14	@	15
do Medium	13½	@	14
do Heavy	—	@	13½
Lard	12½	@	14
Cal. Smoked Beef	10	@	10½
Eastern do	—	@	—
East'n Sboulder's	—	@	—
Hams, Cal	14	@	14½
do Armour	16½	@	—
do Worster's	—	@	—
do Dupee's	18	@	—
do Davis Bros'	—	@	18

SEEDS.

Alfalfa, Chile lb	9	@	14
do California	15	@	17
Benary	10	@	12½
Clover Red	—	@	22
do White	50	@	55
Cotton	6	@	10
Flaxseed	—	@	3½
Hemp	5	@	7
Italian Rye Grass	25	@	30
Perennial do	20	@	30
Millet	10	@	12
Mustard, white	8	@	—
do. Brown	3½	@	4
Rape	3	@	4
Ky. Blue Grass	30	@	—
do 2d quality	20	@	—
Sweet V Grass	50	@	75
Orchard do	30	@	35
Red Top do	—	@	25
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	20	@	25
Timothy	10	@	10½

TALLOW.

Crude, ₱ lb	6¼	@	6¾
Rafined	8	@	8½

WOOL, ETC.

FALL—			
Free	12	@	14
Choice	14	@	16
Northern	17	@	21
Burry	10	@	16
Oregon Eastern	21	@	—
do Valley	25	@	—

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY, M., Dec. 27, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M	30 00	@	35 00
Tahiti do	—	@	—
Cal. do	20 00	@	25 00
Limes, ₱ M	5 00	@	8 00
Lemons Cal. ₱ M	—	@	15 00
do Sicily ₱ o'x. 8	00	@	—
Bananas, ₱ bnch	2 00	@	3 50
Oocoanuts, ₱ 100	5 00	@	6 00
Pineapples, ₱ doz	6 00	@	8 00
Apples, ₱ box	40	@	1 00
Blackberries cse	—	@	—
Cherries ₱ lb	—	@	—
Figs	4	@	5
Gooseberries	—	@	—
Huckleberries	—	@	—
Strawberr's ₱ cs.	—	@	—
Pomgranates	—	@	—
Raspberries	—	@	—
Currants, ₱ cs.	—	@	—
Cranberries bbl.	14 00	@	15 00
Peaches, ₱ lb	5	@	9
Pears, ₱ bx	1 00	@	2 50
Crab apples, ₱ lb	2	@	3
Grapes ₱ box	75	@	1 00
Rose of Peru	75@1		25
Muscat	75@1		25
Tokay	75@		25
Quinces, box	75@1		00

DRIED FRUIT.

Apples, ₱ lb	4½	@	6
Pears, ₱ lb	7	@	8
Peaches, ₱ lb	7	@	9
Apricots, ₱ lb	10	@	12½
Plums, ₱ lb	3	@	4
Pitted, do ₱ lb	12½	@	14
Cal. Raisins box	1 50	@	2 50
Black Figs, ₱ lb	4	@	6
Whits, do	10	@	—
Prunes	12½	@	17
Citron	28	@	30
Zante Currants	9	@	10

VEGETABLES.

Asparagus ₱ lb	—	@	—
Beets ₱ ctl	—	@	60
Cabbage, ₱ 100 lbs	50	@	60
Carrots, ₱ 100 lbs	37½	@	40
Cauliflowsr, doz	—	@	1 00
Celery, doz	—	@	75
Garlic, ₱ lb	2	@	2½
Green Peas ₱ lb	—	@	12½
Green Corn ₱ doz	—	@	—
Sum'rSquash ₱ box	—	@	—
Marro'fat Squ'h, tu	18	@	21
Artichokes, ₱ doz	—	@	—
String Beans, ₱ lb	—	@	03
Lima Beans	—	@	—
Parsnips, per lb	1	@	1½
Shell Beans	—	@	—
Peppers, green, bx	—	@	—
Cucumbers, ₱ box	—	@	25
Tomatoes, box	—	@	1 00
Egg Plant, box	—	@	—
Rhubarb box	—	@	—
Lettuce, doz	10	@	—
Turnips, pr ctl	60	@	75
Mushrooms	—	@	—

LEATHER.

[WHOLESALE.]

WEDNESDAY, M., Dec. 27, 1876.

Sole Leather, boovy ₱ lb	25	@	28
do do light ₱ lb	20	@	22
Jodot, 8 Kil., per doz	48 00	@	50 00
Jodot, 11 to 13 Kil., per doz	68 00	@	78 00
Jodot 14 to 19 Kil., per doz	82 00	@	94 00
Jodot, second choice, 11 to 16 Kil. ₱ doz	57 00	@	74 00
Cornellian, 12 to 18 Ko	57 00	@	67 00
Cornellian Females, 12 to 13	63 00	@	67 00
Cornellian Females, 14 to 16 Kil	71 00	@	76 50
Simon Ullmo Females, 12 to 13, Kil	58 00	@	62 00
Simon Ullmo Females, 14 to 15, Kil	66 00	@	70 00
Simon Ullmo Females, 16 to 17, Kil	74 00	@	74 00
Simon, 18 Kil., ₱ doz	61 00	@	63 00
Simon, 20 Kil. ₱ doz	65 00	@	67 00
Simon, 24 Kil. ₱ doz	72 00	@	74 00
Robert Calf, 7 and 9 Kil	35 00	@	40 00
French Kips, ₱ lb	1 00	@	1 35
California Kip, ₱ doz	40 00	@	60 00
French Sheep, all colors, ₱ doz	8 00	@	15 00
Eastern Calf for Backs, ₱ lb	1 00	@	1 25
Sheep Roans for Topping, all colors, ₱ doz	9 00	@	13 00
Sheep Roans for Linings, ₱ doz	5 50	@	10 50
California Russett Sheep Linings	1 75	@	4 50
Best Jodot Calf Boot Legs, ₱ pair	5 00	@	5 25
Good French Calf Boot Legs, ₱ pair	4 00	@	4 75
French Calf Boot Legs, ₱ pair	4 00	@	—
Harness Leather, ₱ lb	24	@	32½
Fair Bridle Leather, ₱ doz	48 00	@	72 —
Skirting Leather, ₱ lb	33	@	37½
Welt Leather, ₱ doz	30 00	@	50 00
Buff Leather, ₱ foot	17	@	⅞
Wax Side Leather, ₱ foot	17	@	—

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by SUTRO & CO.]

SAN FRANCISCO, Dec. 27, 3 P. M.

LEGAL TENDERS in S. F., 11 A. M., 93½ to 93¾. Silver 6½@6¾.

GOLD in N. Y., 109¼.

GOLD BARS, 889 to 890. SILVER BARS, 8@10 per cent. discount.

EXCHANGE on N.Y., 50@55-100 per cent. premium for gold; on London bankers, 49½; Commercial, 49¾; Paris, five francs per dollar; Mexican dollars, par.

LONDON — Consols, 96⅛; Bonds, 102⅝

QUICKSILVER in S. F., by the flask, per lb, 50c.

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY, M., Dec. 27, 1876.

BAGS.

Eag. Stand Wht	9½	@	10
Neville & Co's	—	@	—
Hand Sewed, 22x36	9½	@	10
24x36	10¾	@	11⅛
23x10	11	@	12
Machine do 22x36	9½	@	10⅝
Flour Sacks ⅛s	9	@	11
" " ¼s	6	@	7
" " ⅛s	4½	@	5
Hessian 60-in	11	@	12
do 45-in	9	@	10
do 40-in	8	@	9
Wool Sacks, 3½ lbs	45	@	50
do 4 "	50	@	52½
Stand. Gunnies	11½	@	12
Bean Bags	7	@	8

CANNED GOODS.

Ass't'd Pie Fruits in 2¼ lb cans	2 75	@	3 00
do Table do	3 75	@	4 25
Jams & Jellies	4 25	@	—
Pickles ½ gl	—	@	3 50
Sardines, qr box	1 65	@	1 90
do hf boxes	3 00	@	—

COAL—Jobbing.

Australian, ₱ ton	8 00	@	8 25
Coos Bay	8 00	@	9 00
Rellingham Bay	—	@	8 00
Seattle	—	@	9 00
Cumberl'd	14 00	@	17 00
Mt. Diablo	6 75	@	7 75
Lehigh	—	@	22 00
Liverpool	8 50	@	9 00
West Hartley	—	@	14 00
Scotch	8 50	@	9 00
Scranton	13 00	@	16 00
Vancouver's Isl.	10 50	@	12 00
Charcoal, ₱ sk	75	@	—
Coke, ₱ bbl	—	@	60

COFFEE.

Sandwich Island	—	@	21½
Costa Rica pr ₱	21	@	—
Guatemala	20½	@	21½
Java	—	@	23
Manilla	20	@	21
Ground in cs	25	@	—
Unicorn	27	@	—

FISH.

Sac. Dry Cod, new	5	@	5½
cases	6	@	7
do bonsless	8½	@	10
Eastern Cod	8	@	8½
Salmon in bbls	6 50	@	7 25
do ½ bbls	3 75	@	4 00
do 2 lb cans	2 65	@	—
do 1 lb cans	1 80	@	—
do Col. R. ½ lb	4 25	@	4 50
Pick. Cod, bbls	22 00	@	—
do ½ bbls	11 00	@	—
Mack'l, No. 1, ½ bbls	11 00	@	—
" extra	—	@	12 00
" in kits	1 25	@	2 50
" Ex mess	3 50	@	4 00
" Ex mess, ½ bs	—	@	12 00
Pic'd Herr'g, bx	3 00	@	3 50
Bos. Sm'k'd Her'g	40	@	50

LIME, ETC.

Lime, St'a Cruz, ₱ bbl	2 00	@	2 25
Cement, Rosendale, do	2 75	@	3 50
do Portland do	4 75	@	5 50
Plaster, Golden Gate Mills	3 00	@	3 25
Land Plaster, ₱ ton	10 00	@	12 50

MISCELLANEOUS.

Puna	—	@	7½

NAILS.

Assorted size, keg	3 25	@	4 00

OILS.

Pacific Gluc Co			
Neat F't No. 1	1 00	@	90
Pure	—	@	—
Castor Oil, No. 1	1 25	@	—
Baker's A A	1 25	@	1 30
Olive Plagniol	5 25	@	5 50
do Possel	4 45	@	4 50
Palm lb	9	@	—
Linseed, raw	—	@	75
do boiled	—	@	80
Cocoanut	—	@	80
China nut in cs	—	@	70
Sperm	1 60	@	1 65
Coast Whales	50	@	55
Polar, refined	62½	@	65
Lard	1 10	@	1 15
Oleophine	—	@	44
Devoe's Brill't	44	@	45
Nonpariel	50	@	—
Eureka	32½	@	38
Barrel Kerosene	32½	@	—
Downer Kerose'e	45	@	—
Elaine	48	@	50

PAINTS.

Purs White Lead	9¾	@	10¼
Whiting	—	@	1¾
Putty	4	@	5
Chalk	—	@	1½
Paris White	—	@	2½
Ochre	—	@	3½
Venetian Red	—	@	3½
Averill Chemical Paint, per gal. White & tints	2 00	@	2 40
Green, Blue & Ch Yellow	3 00	@	3 50
Light Red	3 00	@	3 50
Metallic Roof	1 30	@	1 60

RICE.

China No. 1	5¾	@	6
Hawaiian, ₱ lb	7	@	—
Carolina, ₱ lb	10	@	—

SALT.

Cal. Bay, per ton	10 00	@	14 00
do Common	5 00	@	7 00
Carmen Island	12 00	@	15 00
Liverpool fine	—	@	20 00

SOAP.

Castils ₱ lb	10	@	16½
Common brands	4½	@	6
Fancy do	7	@	8

CANDLES.

Grant's	16	@	16½
Mitchell's	18	@	20

SPICES.

Cloves ₱ lb	45	@	47½
Cassia	23½	@	26¾
Citron	28	@	30
Nutmeg	95	@	97½
Whole Pepper	14½	@	1,¾
Pimento	16	@	17¾
Gr'nd Allsp'rdz	—	@	1 12
do Cassio do	—	@	1 50
do Cloves do	—	@	1 50
do Mustard do	—	@	1 50
do Ginger do	—	@	1 00
do Pepper do	—	@	1 00
do Mace do	—	@	2 00
Bowen's Pure Ground ₱ lb	—	@	50

SUGAR, ETC.

Cal. Cubs per lb	—	@	12¾
Cirole A crushed	—	@	12¾
Powdered	—	@	13
Fins crushed	—	@	12¾
Granulated	—	@	12¾
Golden C	—	@	10
Hawaiian	10	@	11
Cal. Syrup in kgs	—	@	72½
Hawaiian Molasses	25	@	27½

TEA.

Oolong, Canton, lb	19	@	25
do Amoy	28	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	40
do Pingsuey	45	@	80
do Moyune	60	@	1 00
Gunpowder, Cant	15	@	1 00
do Pingsuey	50	@	90
do Moyune	65	@	1 25
Yng Hy., Canton	28	@	40
do Pingsuey	40	@	70
do Moyune	65	@	85
Japon, ½ chests, bulk	30	@	75
Japan, lacquered bxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb bxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ & 1 lb paper	30	@	55

**TURPENT

Nurserymen.

RARE AND VALUABLE

PLANTS AND TREES.

STRAWBERRIES.—Ever-bearing French Bush Strawberries, with and without runners; the best of all in flavor and taste. Plants without runners make fine borders Prices: With runners, 1,000 plants, $10; 100, $1.50: 12, 25c. Without runners, 1,000 plants $20; 100, $3: 12, 50c.

TREES.—The real Paulownia Imperialis. 50c. Two Dollars each for trees from two to nine feet high. Walnuts, paper shell, the best of all, one year old, 50c each Walnuts bearing three years from the seed. Four kinds of the finest French Chesnuts, just received from France, one and two years old, 50 and 75c. Twelve thousand Plants and Trees just received from France, including many new varieties.

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HANNAY BROS.' NURSERY,

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FRUIT, SHADE AND ORNAMENTAL TREES, APPLE, PEAR, PLUM, CHERRY, PEACH, APRICOT, ALMOND, QUINCE, OLIVE, FIG, GRAPEVINES, AND SMALL FRUITS.

EUCALYPTUS, CYPRESS, PINE, ACACIA, PEPPER, ELM, POPLAR, ETC., ETC.

Our Trees are well grown and healthy, and those wishing to plant largely will study their own interests by giving us a call before purchasing elsewhere.

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FRUIT, EVERGREEN, NEW AND RARE TREES.

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THE FASTEST GROWER AND MOST HARDY OF ALL PALMS.

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FRUIT AND ORNAMENTAL TREES, EVERGREENS,

Shrubs and Greenhouse Plants,

Comprising everything NEW and RARE in my line.

SPECIALTIES:

Raisin Grapes, Figs, Oranges, Lemons,

And Other Tropical Fruits.

I have imported superior Figs and Raisin Grapes direct from the place of their nativity in Europe, and having propagated large quantities, can now offer them to the trade and the public on the

Most Reasonable Terms.

200,000

Australian Gum Trees For Sale,

—AT—

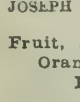
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These trees are from five to twelve inches high, transplanted regularly into boxes 30x20 inches square, weighing 150 pounds. 150 or 500 in each box, in splendid condition for transplanting to their permanent location. Price, $6 to $12 per 1,000. Will contract to plant the trees, or furnish superintendence, on low terms. Cash must accompany orders for less than $50, or if greater than that amount, city reference must be given. Address,

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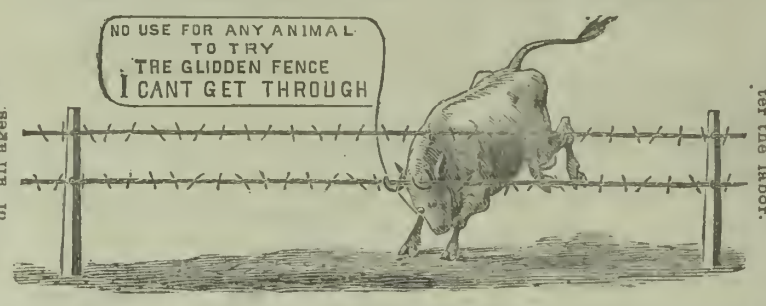
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OVER 500,000 POUNDS SOLD IN CALIFORNIA THE FIRST SEASON OF ITS INTRODUCTION. THE GLIDDEN PATENT BARB WIRE HAS BEEN TESTED BY THOUSANDS OF PRACTICAL FARMERS, WHO UNIVERSALLY RECOMMEND IT, AND IS SUPERIOR TO ALL OTHERS FOR THE FOLLOWING REASONS:

1. The wire is manufactured entirely from steel, which has a relative strength of 50 per cent. greater than of any common iron wire. 2. The only steel wire barb. 3. The only barb that cannot be displaced with thumb and finger or cattle's horns. 4. The only barb with prongs projecting from between the twisted wire and cannot be bent, broken or rubbed off, and never needs replacing. 5. The only coiled barb with broad base on main wire, which renders it immovable. 6. The only barb wire during process of manufacture its strength is tested equal to that of two-horse power. 7. The only barb put on with machinery. It is not pounded on with hammer and indented in main wire to hold it in place. 8. The only barb wire you can lay 80 rods or more on ground and drag with team and not injure or displace the barbs. 9. The only barb wire that gives universal satisfaction and has greater sale than all others put together.

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Manufactured by WASHBURN & MOEN MANUF'G CO.

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LEA AND PERRINS' SAUCE,

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SHEEP WASH,

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After dipping the Sheep, is useful for Preserving Wet Hides, Destroying the Vine Pest, and for Disinfecting Purposes, Etc.

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IMPORTED.

Crosby's Extra Early, Marblehead Mammoth, Stowell's Evergreen, Mexican Sweet, New } Sweet Corn.

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My annual Catalogue of Vegetable and Flower Seed for 1877 will be ready by January, and sent FREE to all who apply. Customers of last season need not write for it. I offer one of the largest collections of vegetable seed ever sent out by any seed house in America, a large portion of which were grown on my six seed farms Printed directions for cultivation on every package. All seed sold from my establishment warranted to be both fresh and true to name; so far, that should it prove otherwise I will refill the order gratis As the original introducer of the Hubbard and Marblehead Squashes, the Marblehead Cabbages, and a score of other new vegetables, I invite the patronage of all who are anxious to have their seed fresh, true, and of the very best strain. *New Vegetables a specialty.*

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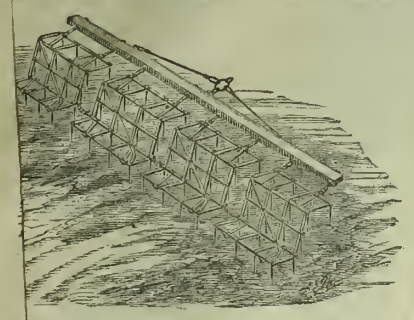
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Th Harrow was Awarded the First Premium at the California State Fair in 1875.

Tndersigned, having purchased the patent right of t Harrow for California, are uow manufacturing the n Roseville, Placer County, and would call the atton of Farmers to the superior merits of this Har over all others now in use.

As name indicates, it is made in sections of about thre et in width, each section having four hars, iu whithe teeth are inserted, and hy connecting the secti with links, the Harr w is formed.

Sild a Farmer require a Harrow upon his farm to do kinds of work, he should purchase six sections, whi would he suitable for four horses, and would cut 18 fin width; hy disconnecting two sections ho will hav two or three-horse Harrow, cutting about 13 feet One section alone is complete in itself, and suitable for garden work, with one horse. The Harrows are ide of the hest quality of Irou, and with teeth wanted to be steel.

Wive a few of the many reasons wby we claim superity for these Harrows over all others in use ou t Coast:

Firs By the lightness of draft, taking into considerat the amount of work it does.

Sec —By working unevon or rolling ground just as w and as evenly ss if it was entirely level.

Thi—They are made of Iron and Steel, and therefore are not affected at all by sun or rain, or by heat and co they are always tight, and ready for use; they also durable. A farmer purchasing one has a How that will last a life time.

Fou—The teeth heing fastened with a nut and screw in the cross hars, should one break, another can he serted in a moment. We are making three sizes, alsing the same in width, but different in depth and weight only.

Pri, from $12.50 *to* $15.00 *per Section.*

Alrders sent to

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Will promptly attended to, and sstisfactiou guaranteed all cases.

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It hecome to our notice that certain parties are now makin this Harrow in this State, and that several of them hve been sent here from the East. Now this is to *caution* a p r ons against making, selling or buying them, made au i offered for sale, as we shall enforce our rights i relation to the matter, and would call the attention of all persons infringing upon our pstent, to the *law* in gard to it.

BREWSTER & CO.,

Roseville July 15th, 1876.

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AMERICAN CHIEF



GANG PLOW.

Took the Pemlum over all at the great Plowing Match in Stockton, in 1870.

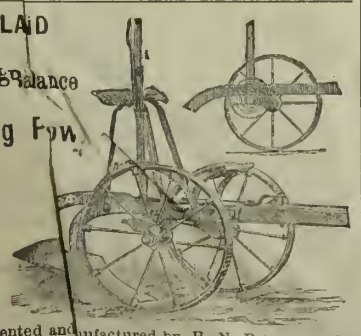
This Plow is thoroughly made by practical men who nave beer long in the business and know what is required in he construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It as various points of sunerlority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

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One-third size. by Dr. E. H. Pardee.



String measuring from center of target to center of each shot, 32¾ inches. Average distance of each shot, 1 9-100 inches.

The Strength of all Its Parts,

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The Rapidity of Its Fire,

The Power and Accuracy of Its Discharge,

The Impossibility of Accident in Loading,

Commends it to the attention of all who use a Rifle, either for Hunting Defense, or Target Shooting.

The San Francisco Agency is now fully supplied with all the various kinds and styles of Arms manufactured by the Winchester Repeating Arms Company, to wit:

Round barrels, plain and set, 24 inch—blued. Octagon harrel, plsin, 24 inch—blued. Octagon harrel, set, 24, 26, 28, 30 inch—blued. Octagon barrel, set extra hesvy, 24, 26, 28, 30 inch—blued. Octagon harrel, set 24, 26, 28, 30—extra finished case hardened and check stocks. Octagon harrel, set extra heavy, 24, 26, 28, 30 inch—extra finished—C. H. & O. S. Octagon harrel, set, 24, 26, 28, 30 inch. Beautifully finished. C. H. and C. S. Known as "One of One Thousand." Octagon harrel, set, gold, silver and nickel plsied and engraved. Carbines blued, also gold, silver and nickel plated. Military rifle muskets, model 1873. Rifles, muskets and carbines, model 1866. **Reloading Tools, Primers and Parts of Arms.**

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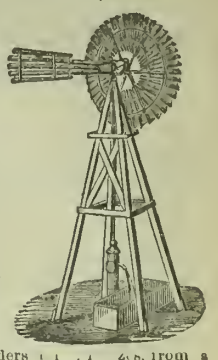
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Self-Regulating, Farm Pumping, Railroad and Power

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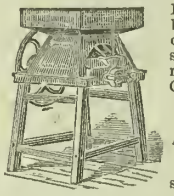
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The "ENTERPRISE" FEED MILL

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For Grinding Barley, Etc.,



Equally as commendshle, has now been tested to entire satisfaction of all, and meets the demand for sn article of that kind that has not heen supplied on the Pacific Coast heretofore.

CHEAP and RELIABLE.

All Goods Warranted.

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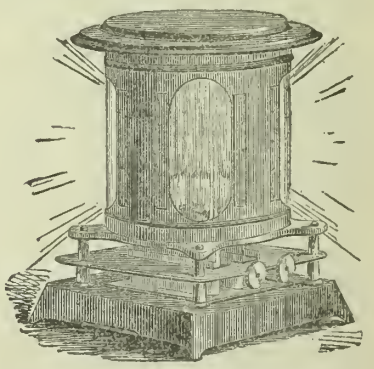
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COAL-OIL STOVES

For Cooking and Heating.



Just the Thing for Dairies.

NO SMOKE, NO SMELL,

And Warranted Perfectly Safe.

Consumes two Quarts of Oil in 12 Hours.

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For further particulars call at the College, 24 Post street, or address for circulars, E. P. HEALD,
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To Farmers and all others who put Barbs upon Wire Fences, Making a Barbed Wire Fence, and to all Manufacturers and Dealers in Fence Barbs and Barbed Fence Wire.

You are hereby notified, that in putting barbs upon wire, making a barbed wire fence, or in using or dealing in barbs or barbed fence wire, not made under license from us, you are infringing upon our patents, and we shall hold you strictly accountable for damages for all infringements of Letters Patent, Nos. 66,182, 67 117, 74 579, 84 062, 153,965, 157 124, 157 508, 164,181, 173,667; reissues, Nos. 7,136, 6,976, 6,902, 7 035, 7,036, 6 913, 6,914, and other patents. Copies of our claims can be obtained of our attorneys, Coburn and Thacher, Chicago Ill., or of our counsel, Thos. H. Dodge, Worcester, Mass.

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